UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended December 31, 2014

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Transition Period from to

Commission File Number: [001-34949]

Tekmira Pharmaceuticals Corporation

(Exact Name of Registrant as Specified in Its Charter)

British Columbia, Canada	**980597776**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

100-8900 Glenlyon Parkway, Burnaby, BC V5J 5J8
(Address of Principal Executive Offices)

604-419-3200
(Registrant's Telephone Number, Including Area Code):

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	**Name of Each Exchange on Which Registered**
Common shares, without par value	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer ☒	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No ☒

The registrant is an accelerated filer as the aggregate market capitalization of voting and non-voting equity held by non-affiliates as at June 30, 2014 was $288,361,339. As of March 9, 2015, the registrant had 46,567,496 Common Shares, no par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its 2015 annual meeting of stockholders, which the registrant intends to file pursuant to Regulation 14A with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year end of December 31, 2014, are incorporated by reference into Part III of this Form 10-K.

TEKMIRA PHARMACEUTICALS CORPORATION

TABLE OF CONTENTS

This annual report on Form 10-K contains forward-looking information and forward-looking statements (collectively, forward-looking statements) within the meaning of applicable securities laws. All statements other than statements relating to historical matters should be considered forward-looking statements. When used in this report, the words "believe," "expect," "plan," "anticipate," "estimate," "predict," "may," "could," "should," "intend," "will," "target," "goal" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these words.

Forward-looking statements in this annual report include statements about Tekmira's strategy, future operations, clinical trials, prospects and the plans of management; RNAi (ribonucleic acid interference) and Hepatitis B virus product development programs; the effects of Tekmira's products on the treatment of cancer, chronic Hepatitis B infection, infectious disease, alcohol use disorder, and other diseases; the potential of RNAi to generate a new class of therapies; Tekmira's strategic focus on, and phased clinical plan of combination therapies for, curing HBV; the composition and roles of the management team; Tekmira's continued listing on NASDAQ; the research benefits of the collaborating with The Baruch S. Blumberg Institute; clinical trial goals and milestones in product pipelines expected to be reached in the second half of 2015 and beyond, including the results of a TKM-HBV Phase I clinical trial, a multi-dosing TKM-HBV trial in the second half of 2015, filing an IND or equivalent for OCB-030 and initiating a study by year end 2015, the initiation of CYT-003 preclinical studies in 2015, filing an IND with the FDA or an equivalent filing with foreign regulatory authorities and initiating Phase 1 studies with one of the capsid assembly inhibitors in 2016, results from surface antigen secretion inhibitors and filing an IND or its equivalent in another territory for a lead compound in 2016, identifying orally active small molecule human STING agonists that possess the desired characteristics to progress into human clinical studies, filing an IND with the FDA or its equivalent in another territory for cccDNA formation inhibitors in 2017, and inhibiting the formation of new virus and subviral particles from cccDNA by controlling cccDNA transcription; the expected efficacy of Tekmira's various HBV therapies; Tekmira's continued commitment to its non-HBV assets, both clinical and preclinical, and timing of expected results; non-HBV clinical trial milestones, including final data from GI-NET and ACC studies in the second half of 2015, an HCC Phase I/II clinical trial, and results from a TKM-Ebola-Guinea study in the second half of 2015; non-HBV preclinical trial milestones, including filing an investigational new drug application for TKM-HTG in the second half of 2015, partnering or external funding for TKM-ALDH, and filing an investigational new drug application for TKM-HTG in the second half of 2015; the expected efficacy of Tekmira's various non-HBV products; the continuation of LNP technology as an important cornerstone of Tekmira's business development activities, and the expected yield from the latest generation of the platform; the expected return from strategic alliances, licensing agreements, and research collaborations, such as the potential value of a transaction with Monsanto Company, a grant from the U.S. National Institutes of Health, and transactions with Enantigen Therapeutics, Inc.; the potential quantum of value of the transactions contemplated in the Monsanto option agreement; funding and licensing of Blumberg's HBV research; the sufficiency of space under Tekmira's head office lease; Tekmira's intent to retain earnings, if any, to finance the growth and development of their business and not to pay dividends or to make any other distributions in the near future; a rolling Phase II clinical program for HBV, using an iterative process of combination drug candidates, leading into Phase III clinical trials; the expansion of the HBV pipeline through internal development, acquisitions and in-licenses; the advancement of the RNAi product pipeline either internally or with partners, with a focus on realizing the long term value of these assets; arbitration proceedings with Alnylam Pharmaceuticals, Inc. in connection with ALN-VSP; arbitration proceedings with the University of British Columbia in connection with alleged unpaid royalties; anticipated royalty receipts; statements with respect to revenue and expense fluctuation and guidance; and the quantum and timing of potential funding.

With respect to the forward-looking statements contained in this annual report, Tekmira has made numerous assumptions. While Tekmira considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties and contingencies.

Our actual results could differ materially from those discussed in the forward-looking statements as a result of a number of important factors, including the factors discussed in this annual report on Form 10-K, including those discussed in Item 1A of this report under the heading "Risk Factors," and the risks discussed in our other filings with the Securities and Exchange Commission and Canadian Securities Regulators. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's analysis, judgment, belief or expectation only as of the date hereof. We explicitly disclaim any obligation to update these forward-looking statements to reflect events or circumstances that arise after the date hereof, except as required by law.

PART I

Item 1. Business

Overview

Following our recent business combination with OnCore Biopharma, Inc., ("OnCore") we intend to focus our efforts on discovering, developing and commercializing a cure for patients suffering from chronic HBV infection, a disease of the liver caused by the hepatitis B virus. Our strategy incorporates our heritage and expertise in RNAi combined with the newly acquired assets and expertise through the OnCore merger.

We believe that, as a result of the merger, Tekmira will be well positioned to capitalize on the HBV global market opportunity. Our current HBV pipeline consists of 9 drugs and drug candidates, with eight unique mechanisms of action. Our unique strategy is to target the three pillars we believe are necessary to deliver an HBV cure, including: (i) suppressing HBV viral replication, (ii) restoring host response by suppressing HBsAg or activating/stimulating the host immune system directed at HBV and (iii) eliminating covalently closed circular DNA (cccDNA), the reservoir of viral genomic material. We believe that our chances for success in HBV are increased, and risk is mitigated, by having a portfolio of assets targeting these three strategies. Most importantly, we believe combination therapies are the key to HBV treatment and a potential cure. We believe that clinical development can be accelerated when multiple components of a combination therapy regimen are controlled by the same company and therefore we have retained exclusive worldwide development and commercialization rights to all of our drug candidates and programs in HBV.

Recognized as a world leader in RNA interference (RNAi) delivery technology, Tekmira is a biopharmaceutical company that since inception has focused on advancing novel RNAi-based therapeutics. RNA interference is considered one of the most important discoveries in the field of biomedical science in the last decade. RNAi has the potential to generate a new class of therapies that take advantage of the body's own natural processes to silence genes and, by extension, treat serious human diseases that often rely on the production of certain proteins at the genetic level. With this ability to eliminate disease-causing proteins from cells, RNAi therapies represent opportunities for therapeutic intervention that have not been achievable with conventional therapeutics.

Tekmira's proprietary LNP Delivery Platform allows for the successful delivery and enablement of RNAi drugs. By encapsulating the RNAi trigger molecules in lipid nanoparticles (LNP); our LNP technology enables efficient delivery and uptake into target cells. Our LNP technology represents the most widely adopted delivery method in RNAi. To date, it has enabled eight clinical trials and has been administered to more than 250 patients. Recent results demonstrate that multi-dosing with LNP technology has been well-tolerated with treatments out to one year.

With anti-viral, oncology, and metabolic product platforms, our RNAi product pipeline is focused on areas where there is a significant medical need and commercial opportunity. Tekmira's clinical and preclinical programs include RNAi therapeutics addressing chronic hepatitis B virus (HBV) infection, cancer indications such as gastrointestinal neuroendocrine tumors and adrenocortical carcinoma, and metabolic disorders such as hypertriglyceridemia.

Tekmira's LNP technology also enables our partners' development programs and pipelines, providing us with non-dilutive funding to support its internal therapeutic development programs. Because LNP can enable a wide variety of nucleic acid triggers, including messenger RNA (mRNA), we continue to seek new product development and partnering opportunities based on our industry-leading delivery expertise.

Corporate History

Tekmira was incorporated pursuant to the British Columbia Business Corporations Act (BCBCA), on October 6, 2005, and commenced active business on April 30, 2007, when Tekmira and its parent company, Inex Pharmaceuticals Corporation ("Inex") were reorganized under a statutory plan of arrangement (the "Reorganization") completed under the provisions of the BCBCA. The Reorganization saw Inex's entire business transferred to and continued by Tekmira. In this discussion of corporate history the terms "we", "us" and "our" refer to the business of Inex for the time prior to the Reorganization and the business of Tekmira for the time after the Reorganization.

Since 1992, we have focused on developing lipid delivery technologies for different classes of therapeutic agents, including chemotherapy drugs and nucleic acid drugs. Our technology was applied to the development of Marqibo®, a liposomal formulation of the chemotherapy drug vincristine, which was subsequently licensed to Hana Biosciences in 2006. Under this legacy agreement, our current licensee, Spectrum Pharmaceuticals, Inc., has a license to develop Marqibo, along with two other liposomal chemotherapy products.

Since 2005, Protiva Biotherapeutics, Inc. ("Protiva") and Inex began separately developing lipid nanoparticle delivery technology for a class of nucleic acid drugs called RNAi trigger molecules that mediate RNA interference, or RNAi, and both Protiva and Inex initiated separate research collaborations with Alnylam Pharmaceuticals, Inc. ("Alnylam") to combine Alnylam's expertise in RNAi trigger molecules or "trigger" technologies with each of Protiva's and Inex's separate proprietary knowledge of RNAi delivery technology. In January 2007, Inex entered into a License and Collaboration Agreement with Alnylam where Inex obtained, among other things, a worldwide license to certain Alnylam intellectual property for the research, development, manufacturing and commercialization of RNAi products for the treatment of human diseases, and Alnylam obtained exclusive access to Inex's delivery technology for siRNA and microRNA. In August 2007, Protiva entered into a Cross License Agreement with Alnylam where Protiva obtained, among other things, a worldwide license to certain Alnylam intellectual property for the research, development, manufacturing and commercialization of RNAi products for the treatment of human diseases and Alnylam obtained non-exclusive access to Protiva's delivery technology for siRNA and microRNA.

In 2008, Inex and Protiva entered into a business combination. At the time of its acquisition, Protiva was a private, venture-backed company incorporated under the laws of Canada and since 2003 had focused its business on developing lipid nanoparticle (LNP) delivery technology for RNAi, a business similar to Inex's. Since commencing work on the delivery of RNAi triggers, Protiva has filed several patent applications covering different LNP formulations, manufacturing processes, and RNAi trigger design to remove any immune stimulatory properties. At the time of its acquisition, Protiva had licensed its LNP technology on a non-exclusive basis to Alnylam and ("Merck") and had access to Alnylam's intellectual property for the research, development and commercialization of RNAi products.

The business combination with Protiva was completed through an acquisition, under a share purchase agreement, of all the then outstanding shares of Protiva in consideration for common shares of Tekmira. Protiva is now Tekmira's wholly-owned subsidiary. Concurrent with the completion of the business combination with Protiva, we entered into initial research agreements with F. Hoffman-La Roche Ltd and Hoffman La-Roche Inc., which we refer to together as ("Roche"), and completed private placement investments of $5.0 million with Alnylam and $5.0 million with an affiliate of Roche. Since the completion of the business combination with Protiva, Tekmira has focused on advancing RNAi therapeutic products and providing LNP delivery technology to pharmaceutical partners and collaborators using Protiva's lipid technology.

In March of 2015, Tekmira completed a merger whereby OnCore Biopharma, Inc. ("OnCore") became a wholly owned subsidiary of Tekmira. As described in further detail below, Tekmira's business strategy going forward intends to focus on discovering, developing and commercializing therapeutics targeting chronic hepatitis B infection, as well as continuing to advance our non-HBV programs as well.

Tekmira is headquartered in Vancouver, Canada, and it opened an office in Seattle, USA in May 2014. As a result of the merger with OnCore, we also have offices in Doylestown, Pennsylvania, USA.

Recent Developments

Business Combination between Tekmira and OnCore

On March 4, 2015, Tekmira completed a business combination pursuant to which OnCore became a wholly-owned subsidiary of Tekmira. This combined company intends to focus on developing a curative regimen for hepatitis B virus (HBV) patients by combining multiple therapeutic approaches. The transaction was approved by 99.5% of votes cast by Tekmira shareholders voting at a Special Meeting held on Tuesday, March 3, 2015, and representing 51.2% of Tekmira's common shareholders. In connection with the transaction, Tekmira issued 23,973,315 common shares to the shareholders of OnCore in exchange for their OnCore securities, and OnCore became a wholly-owned subsidiary of Tekmira.

The new company's management team includes Mark J. Murray, PhD, President and Chief Executive Officer; Patrick T. Higgins, Chief Operating Officer; Bruce Cousins, Chief Financial Officer; Michael J. Sofia, PhD, Chief Scientific Officer; and Michael J. Abrams, PhD, Chief Discovery Officer. William T. Symonds, PharmD, is the Chief Development Officer and will lead the clinical development of the portfolio.

Vivek Ramaswamy is the Chairman of the Board for Tekmira. The remaining Board members are Dr. Mark J. Murray, Mr. Herbert Conrad, Mr. Richard Henriques, Dr. Keith Manchester, Mr. Frank Karbe, and Dr. William Symonds.

The business combination involving Tekmira and OnCore brings together each of Tekmira's and OnCore's broad expertise in antiviral drug development, Tekmira's clinic-ready HBV RNAi therapeutic and OnCore's existing HBV programs to build a portfolio of compounds with a long term goal of eradicating HBV. We believe that, as a result of the merger, Tekmira will have a comprehensive HBV pipeline of drugs, and drug candidates, and be positioned to capitalise on the HBV global market opportunity. With eight unique mechanisms in development, our pipeline targets the three pillars we believe are necessary to deliver an HBV cure, including: (i) suppressing HBV viral replication, (ii) restoring host response by suppressing Hepatitis B surface antigen (HBsAg) or activating/stimulating the host immune system directed at HBV and (iii) eliminating covalently closed circular DNA (cccDNA). We believe that our chances for success in HBV are increased, and risk is mitigated, by having a portfolio of assets targeting these three strategies. Most importantly, we believe combination therapies are the key to HBV treatment and a potential cure. We believe that clinical development can be accelerated when multiple components of a combination therapy regimen are controlled by the same company, and therefore we have retained exclusive worldwide development and commercialization rights to all of our drug candidates and programs in HBV.

While we intend to focus our business strategy on HBV, we also believe that value resides in our other non-HBV programs and with our Lipid Nanoparticle (LNP) technology. We plan to determine what we believe are the best strategies for optimizing the value of the remaining assets. We also see significant value in the collaborations Tekmira has established to date, and plan to continue to work closely with and support our partners using Tekmira's RNAi technology.

Voluntary Delisting from the Toronto Stock Exchange (TSX)

Our common shares were voluntarily delisted from the Toronto Stock Exchange ("TSX") as of Tuesday, March 3, 2015.

RNA Interference

In the last decade, RNAi has become one of the most important innovations in the field of drug discovery and development. In 2006 the scientists who discovered the mechanisms for RNAi were awarded the Nobel Prize in Physiology or Medicine.

We believe that RNAi has the potential to generate a new class of safer therapeutics. RNAi therapeutics take advantage of the body's own natural processes to eliminate specific gene-products or proteins in the cell. Synthetic RNAi trigger molecules are developed as drugs that specifically suppress the production of disease-associated proteins through the RNAi mechanism. RNAi trigger molecules are designed using the gene sequence coding for the target protein. RNAi -based drugs are typically small synthetic nucleic acid molecules. When RNAi triggers are introduced into the cell they are incorporated into an RNA-induced silencing complex (RISC), which interacts specifically with messenger RNA (mRNA) coding for the target protein. mRNA are cleaved in a sequence specific manner and then destroyed, preventing production of the target protein. Importantly, this process is catalytic and RISC associated RNAi triggers can remain stable inside the cell for weeks, destroying many more copies of the target mRNA and maintaining target protein suppression for extended periods of time.

Potential of RNAi Therapeutics

The development of RNAi drugs allows for a completely novel approach to treating disease, which is why RNAi is considered one of the most promising and rapidly advancing frontiers in drug discovery. While there are no RNAi therapeutics approved for commercial use, there are a number of RNAi products currently in human clinical trials. RNAi products are broadly applicable as they can eliminate the production of disease-causing proteins from cells, creating opportunities for therapeutic intervention that have not been achievable with conventional drugs. Development of RNAi therapeutic products is currently limited by the instability of the RNAi trigger molecules in the bloodstream and the inability of these molecules to access target cells or tissues following administration. Delivery technology is necessary to protect these drugs in the bloodstream to allow efficient delivery and cellular uptake by the target cells.

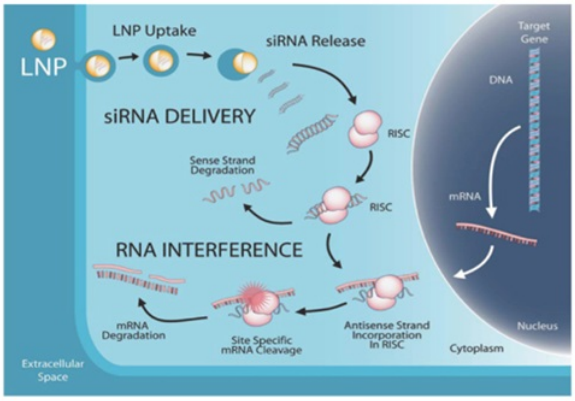
Tekmira's Lipid Nanoparticle (LNP) Delivery Technology

Tekmira has developed a proprietary delivery platform called Lipid Nanoparticle or LNP. This platform has become the gold-standard in RNAi development, establishing Tekmira as a leader in this new area of innovative medicine.

Our proprietary LNP delivery technology allows for the successful encapsulation of RNAi trigger molecules in lipid nanoparticles (LNP) administered intravenously, which travel through the bloodstream to target tissues or disease sites. LNPs are designed to protect the triggers, and stay in the circulation long enough to accumulate at disease sites, such as the liver or cancerous tumors. LNPs are then taken up into the target cells by a process called endocytosis. Subsequent activation by the changing environment inside the cell causes the LNP to release the trigger molecules, which can then successfully mediate RNAi.

In preclinical studies, Tekmira's LNP technology has demonstrated how it can overcome the limitations of RNAi drug delivery, enabling efficient and selective "gene silencing" or reduction of certain target proteins. We believe that Tekmira is well positioned to benefit from the need for effective delivery technology for RNAi therapeutics to reach specific disease sites. Using our LNP technology we, along with our partners, are advancing several RNAi therapeutics across a range of indications for serious conditions with limited treatment options.

Lipid Nanoparticle (LNP)-Enabled Delivery and Mechanism of RNA Interference



**** RISC is an RNA-induced silencing complex that incorporates one strand of siRNA or microRNA***

Today, our LNP technology represents the most widely adopted delivery technology in RNAi, which has enabled eight clinical trials and has been administered to more than 250 human subjects. Because LNP can enable a wide variety of nucleic acid triggers, including mRNA, we continue to see new product development and partnering opportunities based on our industry-leading delivery expertise.

In October 2013, we presented new preclinical data at the International mRNA Health Conference in Tubingen, Germany, demonstrating that mRNA when encapsulated and delivered using Tekmira's LNP technology can be effectively delivered and expressed in the liver in tumors and other specific tissues of therapeutic interest.

Our Product Pipeline

HBV-Focused Pipeline

Hepatitis B virus (HBV) causes the most common serious liver infection in the world. The World Health Organization (WHO) estimates that 350 million people worldwide are chronically infected, and other estimates suggest this could include up to 1.4 million people in the United States. Individuals chronically infected with HBV are at an increased risk of developing significant liver disease, including cirrhosis, or permanent scarring of the liver, as well as liver failure and hepatocellular carcinoma (HCC) or liver cancer. According to the Hepatitis B Foundation, HBV is the cause of up to 80% of liver cancers. Individuals with liver cancer typically have a five-year survival rate of only 15%. The WHO estimates that more than 780,000 people die every year due to the consequences of hepatitis B virus disease.

Our extensive experience in antiviral drug development has been applied to our TKM-HBV program to develop an RNAi therapeutic for chronic hepatitis B infection. Small molecule nucleotide therapy has been the standard of care for chronic HBV infected patients. However, many of these patients continue to express a viral protein called HBV surface antigen (HBsAg). This protein causes inflammation in the liver leading to cirrhosis and, in some cases, HCC and death.

As a result of our merger whereby OnCore became a wholly owned subsidiary of Tekmira, our pipeline of assets has expanded beyond therapeutics being developed with RNAi technology, particularly with respect to HBV. In HBV, we now have what we believe is an industry-leading pipeline focused on finding a cure for chronic HBV infection. Our belief is that to achieve an HBV cure, a combination of products that affect the three main drivers of HBV persistence need to be utilized. Specifically, this means that to be successful, we believe we need to have products that address antiviral replication, immune reactivation and reduce the pool of cccDNA.

Once multiple compounds within the portfolio with sufficient anti-HBV activity have been identified, we intend, subject to discussions with regulatory authorities, to conduct a rolling Phase II clinical program. These studies will likely evaluate combinations of two or more drug candidates in small cohorts of patients with chronic HBV infection to identify active combinations and those that do not have sufficient antiviral activity. We expect to use these results to adaptively design additional treatment regimens for the next cohorts. We also plan to evaluate different treatment durations to determine the optimal duration for a finite duration therapy. We plan to continue this iterative process until we select combination therapy regimens and treatment durations to conduct Phase III clinical trials intended to ultimately support regulatory filings for marketing approval. A graphic summary of our HBV products is set forth below.

Note: The solid circles represent the mechanism that "directly" impacts the given persistence factor. The shaded circle shows "indirect" effects of a given mechanism.

We intend to continue to expand our HBV pipeline through internal development, acquisitions and in-licenses. We believe that a major engine for internal innovation is the collaboration entered into by OnCore, which is now a wholly owned subsidiary on Tekmira, with The Baruch S. Blumberg Institute, ("Blumberg") one of the leading non-profit research institutes in the world focused on HBV. We believe that this collaboration will provide us with access to cutting-edge research in new target identification, assay development, mechanism of action studies and lead-finding efforts focused on hepatitis B virus. This relationship also provides us with access to research that we believe is equal to, or surpasses that of other biotechnology or pharmaceutical companies, and can add value to our current and future research and development efforts in HBV.

TKM-HBV is designed to address an unmet medical need and eliminate HBsAg expression in patients chronically infected with HBV. Reducing HBsAg is thought to be a key prerequisite to enable a patient's immune system to raise an adequate antibody response against the virus. The ability of TKM-HBV to inhibit numerous viral elements in addition to HBsAg increases the likelihood of successfully controlling the viral infection.

TKM-HBV is being developed as a multi-component RNAi therapeutic that simultaneously targets three sites on the HBV genome. Targeting three distinct and highly conserved sites on the HBV genome is intended to facilitate potent knockdown of all viral mRNA transcripts and viral antigens across a broad range of HBV genotypes and reduce the risk of developing antiviral resistance. The goal is for TKM-HBV to be administered without prophylactic steroid treatment.

We presented results from our preclinical studies at the 10th Annual Meeting of the Oligonucleotide Therapeutics Society Meeting held in San Diego, California, on October 15, 2014. Among the results reported is the potent and rapid reduction in HBsAg demonstrated by TKM-HBV in several well-validated models. In these models, TKM-HBV treatment resulted in reductions in both intrahepatic and serum HBsAg, as well as reductions in HBV DNA, covalently closed circular DNA (cccDNA), Hepatitis B e antigen and Hepatitis B c antigen. A rapid 1 log reduction in serum HBsAg was achieved with a single 1 mg/kg dose of TKM-HBV in the humanized mouse model, which closely mimics chronic human hepatitis B infection. 1-2 log viral reductions from similar single-dose LNP treatments in two other true-infection animal models were also demonstrated.

Preclinical studies conducted on infected primary human hepatocytes showed that TKM-HBV had robust and consistent activity against different viral strains representing the major clinical genotypes A, B, C and D. Our data shows that inclusion of three RNAi triggers results in a more broadly effective knockdown of hepatitis B viral elements than a single trigger alone. The mode of action of TKM-HBV complements standard of care nucleoside/nucleotide (NUC) therapy, and lack of drug antagonism has been demonstrated with entecavir, lamivudine and tenofovir on infected primary human hepatocytes, making combination therapy a viable option.

Our data supports the utility of TKM-HBV as a potential new therapeutic option for treating patients with chronic HBV infection. In early 2015, we advanced two TKM-HBV product candidates into a Phase I trial. Both product candidates employ the same unique combination of three RNAi trigger molecules. However, they differ in their LNP composition. One formulation employs a third generation LNP, and the other employs a new, fourth generation LNP, which incorporates novel lipid chemistry and demonstrates improved potency. The multi-component RNAi therapeutic is expected to result in broad and effective inhibition of HBV.

The TKM-HBV Phase I clinical trial is a randomized, single-blind, placebo-controlled study, involving single ascending doses of TKM-HBV. The study will assess the safety, tolerability and pharmacokinetics of intravenous administration of two formulations of TKM-HBV in healthy adult subjects. For each formulation, there are five planned cohorts for a total of 20 subjects (40 in total for both formulations). Four subjects will be enrolled per cohort with three subjects receiving TKM-HBV, and one receiving placebo. We expect the results from the Phase I clinical trial in healthy human volunteers to determine which product formulation we will advance into chronically infected patients in a multi-dosing trial in the second half of 2015.

Following our recent merger with OnCore, our product development pipeline will now focus on discovery, acquisition or in-licensing and developing drug candidates that attack multiple targets of the HBV lifecycle, including the aggressive suppression of HBV replication, restoration of an adequate immune response and reducing the pool of cccDNA. Although the ultimate curative regimens for HBV are currently unknown, we have assembled a robust portfolio of drug development programs targeting multiple targets within the HBV life cycle, which we plan to evaluate to determine the best potential combination approaches for patients. These assets include the following:

Cyclophilin Inhibitor — OCB-030

Cyclophilins are proteins that have been shown to play a role in several biological processes, including viral infection. By inhibiting cyclophilin, we believe the ability of HBV to replicate can be impaired and the host immune response toward HBV may be enhanced. Through our OnCore subsidiary, we have licensed from NeuroVive Pharmaceutical AB, or "NeuroVive", the exclusive rights to develop and commercialize cyclophilin inhibitor drug candidates, including OCB-030, for the treatment of hepatitis B. We are engaged in studies which we expect to be completed in order to file an IND, or equivalent, and initiate a study by year end 2015.

TLR9 Agonist (CYT-003)

Pharmaceutical activation of toll-like receptors (TLRs) is a novel and attractive approach for the treatment of chronic HBV because agonism of these receptors triggers innate immune responses and also stimulates adaptive immunity. It is hoped that immune stimulation by TLR agonists can overcome the multiple immunologic blocks that allows chronic HBV infection, including direct activation of the host's innate antiviral response, hence overcoming the functional weakness in HBV-specific immune cell responses.

Licensed from Cytos Bioetchnology Ltd. ("Cytos"), CYT-003 is a biological carrier which is filled with the immunostimulatory oligonucleotide called G10. G10 is a toll-like receptor-9 (TLR-9) agonist. CYT-003 has been shown to directly activate B cells and stimulates human pDC to secrete Interferon alpha. CYT-003 also activates other antigen presenting cells indirectly and promotes the development of TH1 type cytokine response. This is thought to be potentially beneficial in promoting anti-HBV T cell immunity. CYT-003 has previously been utilised in human trials in other indications and therefore could move quickly into the clinic in HBV infected patients. Preclinical studies to demonstrate proof of concept are anticipated to be initiated in 2015.

Capsid Assembly Inhibitors

We are developing two capsid assembly inhibitors as oral therapeutics for the treatment of chronic HBV infection. By inhibiting assembly of the viral capsid, the ability of hepatitis B virus to replicate is impaired, which subsequently reduces the amount of new virus produced, and may have an effect on cccDNA. Through our OnCore subsidiary, we have acquired exclusive, worldwide rights to these drug candidates through an in-license from Blumberg and Drexel University, or ("Drexel"), and through OnCore's recent acquisition of Enantigen Therapeutics, Inc., or Enantigen.

Surface Antigen Secretion Inhibitors

We are developing multiple small molecule orally bioavailable HBV surface antigen secretion inhibitors. By inhibiting the secretion of HBV surface antigen from infected cells, we expect that the immune response of patients treated with this therapy can reengage and thereby mount a more credible response to a hepatitis B virus infection. We acquired these drug candidates through OnCore's recent acquisition of Enantigen.

STING Agonists

We are developing STING (stimulator of interferon genes) agonists. By activating interferon genes, we anticipate that the body can produce additional interferon alpha and beta, which have antiviral properties. Our development program, which is currently in the discovery research stage, is based on proof of concept data in mice generated by Blumberg which showed that STING agonists can elicit an antiviral response and inhibit HBV replication in mouse liver cells. In collaboration with Blumberg, our plan is to identify potent, orally active small molecule human STING agonists that possess the desired characteristics to progress into human clinical studies.

cccDNA Formation Inhibitors

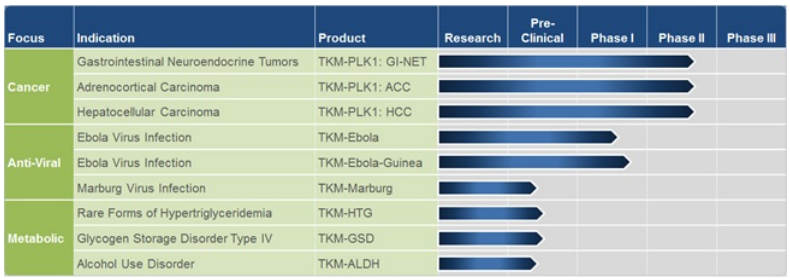
We are developing multiple series of cccDNA formation inhibitors. The inhibition of cccDNA formation would reduce the amount of cccDNA in the infected liver cell and could ultimately eliminate the reservoir of HBV genomic material required for continued viral replication. Through our OnCore subsidiary, we acquired the exclusive, worldwide rights to this program through an in-license from Blumberg. This program is currently in lead optimization.

cccDNA Epigenetic Modifiers

In addition to cccDNA formation inhibitors, we are developing cccDNA epigenetic modifiers. By controlling cccDNA transcription, we anticipate that we may be able to inhibit the formation of new virus and subviral particles from cccDNA. This development program, which is currently in the discovery research stage, is based on proof of concept data generated by Blumberg using known inhibitors of enzymes involved in DNA information processing.

Non-HBV Assets – Clinical Programs and Pre-Clinical Programs (LNP enabled)

We believe there is significant value in our non-HBV assets and remain committed to maximizing this value. We intend to continue our clinical programs to the appropriate point in support of this objective. We also remain interested in advancing our ongoing metabolic and rare disease preclinical programs in an appropriate way toward this value maximization objective and in continuing to leverage our knowledge and expertise in LNP technology. A graphic summary of our non-HBV products is set forth below.



Our RNAi product pipeline is focused on anti-virals, oncology and metabolic product platforms, where there is a significant medical need and commercial opportunity. Our intention is to advance our RNAi product pipeline either ourselves or with partners, with a focus on realizing the value of these assets.

We believe that our LNP technology is a leading technology for formulating novel RNAi and mRNA products. The use of the technology in these fields has the potential to enable a broad new class of therapeutics. Our LNP technology currently represents the most widely adopted and advanced delivery technology in RNAi, having enabled eight clinical trials and with administration to over 250 patients to date. LNP and RNAi technology has the potential to generate a broad new class of therapeutics that take advantage of the body's own natural processes to silence genes — or more specifically to eliminate specific gene-products, from the cell.

We are also committed to continuing to support the work of our product development partners and intellectual property licensees with the goal of realizing the short-term and long term financial potential of these partnerships.

Clinical Programs (LNP enabled)

TKM-PLK1

Our oncology product platform, TKM-PLK1, targets polo-like kinase 1 (PLK1), a protein involved in tumor cell proliferation and a validated oncology target. Inhibition of PLK1 expression prevents the tumor cell from completing cell division, resulting in cell cycle arrest and death of the cancer cell. Evidence that patients with elevated levels of PLK1 in their tumors exhibit poorer prognosis and survival rates has been documented in the medical literature. TKM-PLK1 is being evaluated in oncology indications in which there are limited or ineffective therapies available: Gastrointestinal Neuroendocrine Tumors (GI-NET), Adrenocortical Carcinoma (ACC) and Hepatocellular Carcinoma (HCC).

GI-NET and ACC

GI-NET is the gastrointestinal subset of neuroendocrine tumors. According to a paper by Yao et al. (2008), a historical analysis of the US SEER database reveals the incidence of neuroendocrine tumors has increased faster in the last few decades than any other neoplasm, with a growth rate of greater than 3% expected to continue in the near term. The prevalence of GI-NET in the US is estimated to be approximately 55,000 individuals. Prognosis for advanced or metastatic GI-NET, the target population for TKM-PLK1, is poor with 25-54% of patients surviving less than one year.

ACC is an ultra-rare form of cancer that develops in the adrenal gland, with data from the US National Cancer Institute estimating 500 patients in the US. Survival prognosis for these patients is poor. A large percentage of patients are not good surgical candidates and there is a lack of effective systemic therapies.

We presented updated Phase I TKM-PLK1 data at the 6th Annual NET Conference hosted by the North American Neuroendocrine Tumor Society (NA-NETS) in Charleston, South Carolina on October 4, 2013. This data set included a total of 36 patients in a population of advanced cancer patients with solid tumors. Doses ranged from 0.15 mg/kg to 0.90 mg/kg during the dose escalation portion of the trial, with the maximum tolerated dose (MTD) of 0.75 mg/kg. Serious adverse events (SAEs) were experienced by four subjects in this heavily pre-treated, advanced cancer patient population, with three of four subjects continuing on study. Forty percent (6 out of 15) of patients evaluable for response, treated at a dose equal to or greater than 0.6 mg/kg, showed clinical benefit. Three out of the four ACC patients (75%) treated with TKM-PLK1 achieved stable disease, including one patient who saw a 19.3% reduction in target tumor size after two cycles of treatment and is still on study receiving TKM-PLK1. Of the two GI-NET patients enrolled, both experienced clinical benefit: one patient had a partial response based on Response Evaluation Criteria in Solid Tumors (RECIST) criteria, and the other GI-NET patient achieved stable disease and showed a greater than 50% reduction in Chromogranin-A (CgA) levels, a key biomarker used to predict clinical outcome and tumor response.

Based on encouraging results from the dose escalation portion and expansion cohort from our Phase I TKM-PLK1 clinical trial, we expanded into a Phase I/II clinical trial with TKM-PLK1, which is specifically enrolling patients within two therapeutic indications: advanced GI-NET or ACC. This multi-center, single arm, open label study is designed to measure efficacy using RECIST criteria for GI-NET patients and ACC patients as well as evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1. TKM-PLK1 is administered weekly with each four-week cycle consisting of three once-weekly doses followed by a rest week. In the Fall of 2014, we achieved our enrolment target of patients with advanced GI-NET or ACC tumors. These patients will continue treatment and be followed to determine if TKM-PLK1 produces a meaningful clinical benefit.

We provided an update on this Phase I/II clinical study in December 2014. To date, 55 patients, in both the Phase I and Phase I/II studies have been treated at doses of ≥ 0.6 mg/kg, which is considered to be in the efficacious dose range based on preclinical studies. Of these, 31 patients comprise the target population of GI-NET or ACC patients. Currently, nine patients (GI-NET and ACC) remain actively on treatment and data collection is ongoing.

While we are still awaiting maturation of data, we continue to see evidence of anti-tumor activity in some treated subjects, including one ACC patient with an almost complete resolution of their disease. We expect to report final data from these studies in the second half of 2015.

HCC

HCC is one of the most common cancers and one of the most deadly, with over 650,000 deaths each year worldwide according to the Globocan 2012 database. US incidence is estimated at 27,000 individuals with annual growth rates greater than 2%. HCC is an aggressive, hard-to-treat disease with one-year survival rates of less than 50% and five-year rates as low as 4% (National Cancer Institute). To date, Nexavar® (sorafenib) is the only agent approved to treat HCC with an improvement in overall survival of just two to three months.

In May 2014, we initiated another Phase I/II clinical trial with TKM-PLK1, enrolling patients with advanced HCC. Patient dosing has commenced and we have completed the first treatment in all of our subjects for the first HCC cohort. This Phase I/II clinical trial is a multi-center, single arm, open label dose escalation study designed to evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1 as well as determine the maximum tolerated dose in patients with advanced HCC. It will also include a preliminary assessment of the anti-tumor activity of TKM-PLK1 in this patient population. It is expected that approximately 38 patients with advanced HCC tumors will be enrolled in this Phase I/II clinical trial.

TKM-Ebola

TKM-Ebola, an anti-Ebola RNAi therapeutic, is being developed under a $140 million contract, signed in July 2010, with the U.S. Department of Defense (DoD) Joint Project Manager Medical Countermeasure Systems BioDefense Therapeutics (JPM-MCS-BDTX). Preclinical studies published in the medical journal *The Lancet* in 2010 demonstrated that when RNAi triggers targeting the Ebola virus and delivered by our LNP technology were used to treat previously infected non-human primates, the result was 100 percent protection from an otherwise lethal dose of Zaire Ebola virus (Geisbert et al., *The Lancet,* Vol. 375, May 29, 2010).

In May 2013, our collaboration with the JPM-MCS-BDTX was modified and expanded to include advances in LNP formulation technology. The contract modification increased the first stage of funding from $34.7 million to $41.7 million. In April 2014, we signed a second contract modification to increase this funding by $2.1 million to a total of $43.8 million to compensate Tekmira for unrecovered costs that occurred in 2012 and to provide additional funding should it be required.

TKM-Ebola is being developed under specific U.S. Food and Drug Administration (FDA) regulatory guidelines called the "Animal Rule". This allows, in circumstances where it is unethical or not feasible to conduct human efficacy studies, marketing approval to be granted based on adequate and well-controlled animal studies when the results of those studies establish that the drug is reasonably likely to produce clinical benefit in humans. Demonstration of the product's safety in humans is still required.

We were granted Fast Track designation from the FDA for the development of TKM-Ebola in March 2014. The FDA's Fast Track is a process designed to facilitate the development and expedite the review of drugs in order to get important new therapies to the patient earlier.

In May 2014, we successfully completed the single ascending dose portion of the TKM-Ebola Phase I clinical trial in healthy human volunteers. Results demonstrated that administration of the TKM-Ebola therapeutic, in the absence of any steroid containing pre-medication, was well-tolerated at a dose level of 0.3 mg/kg, determined to be the maximum tolerated dose.

In July 2014, we received notice from the FDA placing the TKM-Ebola Investigational New Drug application (IND) on clinical hold until additional information is supplied, and the multiple ascending dose portion of the trial protocol is modified to ensure the safety of healthy volunteers. The clinical hold was subsequently modified to a partial clinical hold to permit the administration of TKM-Ebola to patients with a suspected or confirmed Ebola virus infection. Under the FDA's expanded access program, several patients with a confirmed or suspected Ebola virus infection were treated with TKM-Ebola. Data is being collected and will be provided to the FDA under our IND. Health Canada also established a similar framework for the potential use of TKM-Ebola in the same group of patients.

With the emergency use of our TKM-Ebola product under expanded access protocols and recent developments, such as the production of a new product candidate for clinical trials in West Africa, the clinical development pathways for our Ebola products are evolving. We may not be able to resolve the partial clinical hold of the healthy volunteer, multiple ascending dose portion of our Phase 1 trial of TKM-Ebola.

In December 2014, the US Congress amended the Rare and Tropical Disease list to include Ebola as a candidate for a potential Accelerated Review Voucher.

TKM-Ebola-Guinea, an Anti-Ebola RNAi Therapeutic Targeting Ebola-Guinea Strain of Ebola Virus

In September 2014, we joined an international consortium led by the International Severe Acute Respiratory and Emerging Infection Consortium (ISARIC) at the University of Oxford, UK, to potentially provide an RNAi based investigational therapeutic for expedited clinical studies in West Africa.

In October 2014, the genomic sequence of the Ebola-Guinea strain, which is the virus responsible for the recent outbreak in West Africa, was determined from several viral isolates and published in the New England Journal of Medicine (Baize S., et al. Emergence of Zaire Ebola Virus Disease in Guinea; *New England Journal of Medicine*, October 9, 2014 Vol. 371 No. 15). We rapidly developed a modified RNAi therapeutic to specifically target Ebola-Guinea. The new product, TKM-Ebola-Guinea, is designed to match the genomic sequence exactly, with two RNAi molecule triggers. Results of preclinical studies with TKM-Ebola-Guinea demonstrated efficacy comparable to those obtained with TKM-Ebola, which demonstrated up to 100% protection from an otherwise lethal dose of the virus.

In December 2014, we entered into a Manufacturing and Clinical Trial Agreement with the University of Oxford to provide the new TKM-Ebola-Guinea therapeutic product for clinical studies in West Africa. ISARIC can conduct clinical studies of TKM-Ebola-Guinea in Ebola virus infected patients, with funding provided by the Wellcome Trust. GMP manufacture of TKM-Ebola-Guinea is now complete and 100 treatment courses are available for the study. A Phase II single arm trial called RAPIDE (Rapid Assessment of Potential Interventions & Drugs for Ebola), was initiated in March 2015 in Sierra Leone. The study is open-label with a concurrent observational study in Ebola virus disease, and results are expected in the second half of 2015.

The U.S. Department of Defense JPM-MCS-BDTX has also exercised an option, valued at $7.0 million, in our current contract to manufacture TKM-Ebola-Guinea. We have been awarded the option for scale-up and GMP manufacture of the product for approximately 500 treatment courses.

Non-HBV Preclinical Programs (LNP enabled)

We are currently evaluating several additional preclinical candidates with potential in diverse therapeutic areas. Given the extremely high efficiency of delivery for third and fourth generation liver-centric LNP formulations, we are focused on rare diseases where the molecular target is found in the liver, early clinical proof-of-concept can be achieved and development opportunities may be accelerated. Our research team intends to continue to generate preclinical data to support the advancement of the most promising of these targets.

TKM-Marburg

Like Ebola, Marburg is a member of the filovirus family of hemorrhagic fever viruses. Natural outbreaks with the Marburg-Angola strain have resulted in mortality in approximately 90% of infected individuals. There are currently no approved therapeutics available for the treatment of Marburg infection.

In 2010, along with the University of Texas Medical Branch (UTMB), we were awarded a National Institutes of Health (NIH) grant to support research to develop RNAi therapeutics to treat Ebola and Marburg hemorrhagic fever viral infections. In November 2013, we announced data showing 100% survival in non-human primates infected with the Angola strain of the Marburg virus in two separate studies. These results build upon a study published earlier in the Journal of Infectious Disease showing 100% protection in guinea pig models of infection with Angola, Ci67 and Ravn strains of the Marburg virus using a broad spectrum RNAi therapeutic enabled by Tekmira's LNP.

In February 2014, along with UTMB, and other collaborators, we were awarded additional funding from the NIH in support of this research. Data was published demonstrating complete protection of non-human primates against lethal Marburg-Angola strain, (*Science Translational Medicine*. Thi EP., et al. Marburg virus infection in nonhuman primates: Therapeutic treatment by lipid-encapsulated siRNA. 2014 Aug 20;6 (250))

Non-HBV Preclinical Programs (LNP enabled)

We are currently evaluating several additional preclinical candidates with potential in diverse therapeutic areas. Given the extremely high efficiency of delivery for third and fourth generation liver-centric LNP formulations, we are focused on rare diseases where the molecular target is found in the liver, early clinical proof-of-concept can be achieved and development opportunities may be accelerated. Our research team intends to continue to generate preclinical data to support the advancement of the most promising of these targets.

TKM-HTG

Our metabolic product platform, TKM-HTG, aims to achieve rapid and sustained reductions of triglycerides to address the limitations of existing Hypertriglyceridemia (HTG) treatments. Hypertriglyceridemia is a type of dyslipidemia where there are high blood levels of triglycerides. Patients with severe HTG, (classified as triglyceride levels greater than 1000 mg/dL) are at risk of acute pancreatitis as well as the risk of cardiovascular disease. Approximately one million adults in the US and 18 million worldwide suffer from severe HTG. (NHANES 2003-2004 data).

Another patient group affected by HTG are those with Familial Chylomicronemia Syndrome (FCS), which is a very rare hereditary condition affecting an estimated 1:1,000,000 people (www.fcs.raredr.com). Additionally, 35% of patients with Type 2 Diabetes (T2D) suffer from mixed hyperlipidemia which is a combination of elevated cholesterol and high triglycerides. With underlying T2D, these patients are at considerable risk from cardiovascular disease.

TKM-HTG is being developed as a multi-component RNAi therapeutic that simultaneously targets a combination of genes expressed in the liver, which are known to play a significant role in triglyceride metabolism. High triglyceride levels are medically linked to increased risk of cardiovascular disease, fatty liver disease, insulin resistance and pancreatitis.

We anticipate filing an investigational new drug application, or equivalent document, in the second half of 2015.

TKM-ALDH

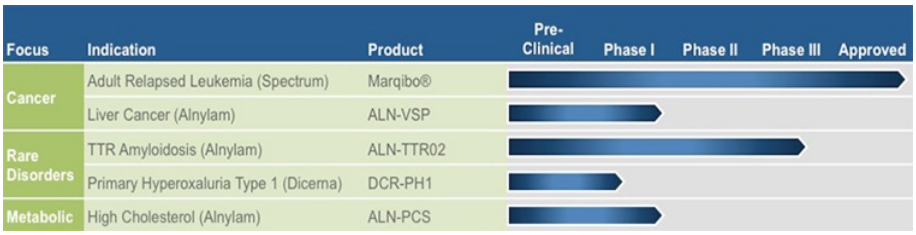
TKM-ALDH is designed to knockdown or silence aldehyde dehydrogenase (ALDH) to induce long term acute sensitivity to ethanol, for use in severe alcohol use disorder. Aldehyde dehydrogenase is a key enzyme in ethanol metabolism. Inhibition of ALDH activity, through the silencing of ALDH, results in the build-up of acetaldehyde leading to adverse physiological effects. Human proof of concept for ALDH inhibition already exists in the form of the approved drug disulfiram. However, disulfiram's efficacy is compromised by poor compliance because it has to be taken daily. We believe TKM-ALDH will induce prolonged ethanol sensitivity that will enable it to overcome the compliance limitations associated with daily dosing. We are exploring partnering or external funding opportunities to maximize the value of this asset.

Ongoing Advancements in LNP Technology

We plan to continue to develop our proprietary LNP delivery technology and receive clinical validation from LNP-based products currently in clinical trials. The most advanced LNP-enabled therapeutic, which is being developed by Alnylam, has entered a Phase III clinical trial. We believe our LNP technology can remain an important cornerstone of our business development activities moving forward. We recently announced the latest (fourth) generation of the platform which comprises a rational re-design of the lipid architecture, as well as formulation and process advances. These attributes can be utilized in programs entering the clinic in 2015 and are expected to yield significant increases in potency and therapeutic index.

Because LNP can enable a wide variety of nucleic acid triggers, including mRNA, we continue to see new product development and partnering opportunities based on what we believe is our industry-leading delivery expertise. In February 2014, we presented new preclinical data at the AsiaTIDES scientific symposium in Tokyo, Japan demonstrating that mRNA can be effectively delivered to target proteins expressed.

Partner-Based Programs



Patisiran (ALN-TTR02)

Patisiran, or ALN-TTR02, which is being developed by Alnylam, represents the most clinically advanced application of our proprietary LNP delivery technology. In November 2013, Alnylam presented positive results from its Phase II clinical trial with patisiran (ALN-TTR02), an RNAi therapeutic targeting transthyretin (TTR) for the treatment of TTR-mediated amyloidosis (ATTR). In December 2013, Alnylam announced the initiation of the APOLLO Phase III trial of patisiran to evaluate efficacy and safety of patisiran in ATTR patients with Familial Amyloidotic Polyneuropathy (FAP). In April 2014, Alnylam presented positive new data from its Phase II clinical trial with patisiran. These results provide additional support for Alnylam's Phase III APOLLO trial. In October 2014, Alnylam reported positive clinical data for the ongoing patisiran Phase II Open Label Extension (OLE) study in patients with FAP. The results demonstrated sustained knockdown of serum TTR of up to 90% and a favorable tolerability profile out to one year of treatment.

Alnylam has also pursued two other LNP-based products through clinical development: ALN-VSP (liver cancer), and ALN-PCS02 (hypercholesterolemia). Alnylam will pay Tekmira low single digit royalties based on commercial sales of Alnylam’s LNP-enabled products. More information about our licensing agreement with Alnylam can be found under the “Strategic Alliances, Licensing Agreements, and Research Collaborations” section of this report.

Marqibo®

Marqibo®, originally developed by Tekmira, is a novel, sphingomyelin/cholesterol liposome-encapsulated formulation of the FDA-approved anticancer drug vincristine. Marqibo’s approved indication is for the treatment of adult patients with Philadelphia chromosome-negative acute lymphoblastic leukemia (Ph-ALL) in second or greater relapse or whose disease has progressed following two or more lines of anti-leukemia therapy. Our licensee, Spectrum Pharmaceuticals, Inc. (“Spectrum”), launched Marqibo through its existing hematology sales force in the United States. We are entitled to mid-single digit royalty payments based on Marqibo’s commercial sales. Spectrum has ongoing trials evaluating Marqibo in three additional indications, which are: first line use in patients with Philadelphia Negative Acute Lymphoblastic Leukemia (Ph-ALL), Pediatric ALL and Non-Hodgkin’s lymphoma. More information about our licensing agreement with Spectrum can be found under the “Strategic Alliances, Licensing Agreements, and Research Collaborations” section of this report.

DCR-PH1

In November 2014, we signed a licensing and collaboration agreement with Dicerna Pharmaceuticals, Inc. to utilize our LNP delivery technology exclusively in Dicerna's primary hyperoxaluria type 1 (PH1) development program. Dicerna will use our third generation LNP technology for delivery of DCR-PH1, Dicerna's product incorporating its Dicer substrate RNA (DsiRNA) molecule, for the treatment of PH1, a rare, inherited liver disorder that often results in kidney failure and for which there are no approved therapies. More information about our licensing agreement with Dicerna can be found under the “Strategic Alliances, Licensing Agreements, and Research Collaborations” section of this report.

Strategic Alliances, Licensing Agreements, and Research Collaborations

Since inception, we have fostered collaborations and technology licensing relationships with leading companies in the RNAi field, including Alnylam Pharmaceuticals, Inc., Bristol-Myers Squibb Company, Merck & Co. Inc., the U.S. Department of Defense’s BioDefense Therapeutics’ Office, Monsanto, Dicerna Pharmaceuticals Inc., and other undisclosed pharmaceutical and biotechnology companies.

We have certain rights under the RNAi intellectual property of Alnylam Pharmaceuticals, Inc. to develop 13 RNAi therapeutic products. In addition, we have a broad non-exclusive license to use Unlocked Nucleobase Analogs (UNAs) from Arcturus Therapeutics, Inc. (“Arcturus”) for the development of RNAi therapeutic products directed to any target in any therapeutic indication.

Alnylam Pharmaceuticals, Inc. (“Alnylam”) and Acuitas Therapeutics Inc. (“Acuitas”)

In November 2012, we, Alnylam, and AlCana Technologies, Inc. (now Acuitas Therapeutics Inc.) entered into an agreement to settle all litigation and to restructure the existing contractual relationship, replacing all earlier licensing, cross-licensing, collaboration, and manufacturing agreements. Consistent with the terms outlined in the 2012 settlement agreement, in December 2013, we finalized and entered a cross-license agreement with Acuitas. The terms provide Acuitas with access to certain of our earlier Intellectual Property (IP) generated prior to April 2010, and provide us with certain access to their technology and licenses in the RNAi field, along with a percentage of each milestone, and royalty payment with respect to certain products. In addition, Acuitas has agreed that it will not compete in the RNAi field for a period of five years.

As a result of the settlement and 2012 cross-license agreement, we received a total of $65 million in cash payments from Alnylam in November 2012. This included $30 million associated with the termination of the manufacturing agreement and $35 million associated with the termination of the previous Alnylam-Inex and Alnylam-Protiva license agreements, as well as a reduction of the milestone and royalty schedules associated with Alnylam’s ALN-VSP, ALN-PCS, and ALN-TTR programs. Of the $65 million received from Alnylam, $18.7 million was subsequently paid by us to our lead legal counsel, in satisfaction of the contingent obligation owed to that counsel. In addition, Alnylam transferred all agreed upon patents and patent applications related to LNP technology for the systemic delivery of RNAi therapeutic products, including the MC3 lipid family, which is used in Alnylam’s TTR-mediated amyloidosis treatment ALN-TTR02, to Tekmira. As a result, we own and control prosecution of this IP portfolio. We are the only company able to sublicense LNP intellectual property in future platform-type relationships. Alnylam has a license to use our IP to develop and commercialize products and may only grant access to our LNP technology to its partners if the partner is part of a product sublicense. Alnylam’s license rights are limited to patents that we filed, or that claim priority to a patent that was filed, before April 15, 2010. Alnylam does not have rights to our patents filed on or after April 15, 2010 unless they claim priority to a patent filed before that date. Alnylam will pay us low single digit royalties based on commercial sales of Alnylam’s LNP-enabled products using our technology, including ALN-TTR02 (patisiran), ALN-VSP, and ALN-PCS02.

The 2012 cross-license agreement with Alnylam also grants us IP rights to develop our own proprietary RNAi therapeutics. Alnylam has granted us a worldwide license for the discovery, development and commercialization of RNAi products directed to 13 gene targets – three exclusive and ten non-exclusive licenses – provided that they have not been committed by Alnylam to a third party, or are otherwise unavailable as a result of the exercise of a right of first refusal held by a third party, or are part of an ongoing or planned development program of Alnylam. Licenses for five of the 10 non-exclusive targets – ApoB, PLK1, Ebola, WEE1, and CSN5 – have already been granted, along with an additional license for ALDH2, which has been granted on an exclusive basis. In consideration for this license, we have agreed to pay single-digit royalties to Alnylam on product sales and have milestone obligations of up to $8.5 million on the non-exclusive licenses (with the exception of TKM-Ebola, which has no milestone obligations). Alnylam no longer has “opt-in” rights to our lead oncology product, TKM-PLK1, so we now hold all development and commercialization rights related TKM-PLK1. We will have no milestone obligations on the three exclusive licenses.

In December 2013, we received a $5.0 million milestone from Alnylam, triggered by the initiation of the APOLLO Phase III trial of patisiran. We have entered an arbitration proceeding with Alnylam, as provided for under our licensing agreement, to resolve a matter related to a disputed $5.0 million milestone payment payable to us by Alnylam for its ALN-VSP product. We have not recorded any revenue in respect of this milestone.

Merck & Co., Inc. ("Merck") and Alnylam license agreement

As a result of the business collaboration with Protiva in 2008, we acquired a non-exclusive royalty-bearing worldwide license agreement with Merck. Under the license, Merck will pay up to $17.0 million in milestones for each product they develop covered by Protiva’s IP, except for the first product for which Merck will pay up to $15.0 million in milestones, and will pay royalties on product sales. Merck’s license rights are limited to patents that we filed, or that claim priority to a patent that was filed, before October 9, 2008. Merck does not have rights to our patents filed after October 9, 2008 unless they claim priority to a patent filed before that date. Merck has also granted a license to us to certain of its patents. On March 6, 2014, Alnylam announced that they acquired all assets and licenses from Merck, which included our license agreement.

Dicerna Pharmaceuticals, Inc. (“Dicerna”)

In November 2014, Tekmira signed a licensing agreement and a development and supply agreement with Dicerna to license Tekmira's LNP delivery technology for exclusive use in Dicerna's primary hyperoxaluria type 1 (PH1) development program. Dicerna will use Tekmira's third generation LNP technology for delivery of DCR-PH1, Dicerna's product incorporating its Dicer substrate RNA (DsiRNA) molecule, for the treatment of PH1, a rare, inherited liver disorder that often results in kidney failure and for which there are no approved therapies. Under the agreements, Dicerna paid Tekmira $2.5 million upfront and will potentially make payments of $22 million in aggregate development milestones, plus a mid-single-digit royalty on future PH1 sales. This partnership also includes a supply agreement under which we will provide clinical drug supply and regulatory support for the rapid advancement of this product candidate.

Monsanto Company ("Monsanto")

In January 2014, we signed an Option Agreement and a Service Agreement with Monsanto, pursuant to which Monsanto may obtain a license to use our proprietary delivery technology. The transaction supports the application of our proprietary delivery technology and related IP for use in agriculture. The potential value of the transaction could reach $86.2 million following the successful completion of milestones. In January 2014, we received $14.5 million of the $17.5 million in anticipated near term payments. We received additional payments of $1.5 M each in June 2014 and October 2014 following achievement of specific program objectives.

Spectrum Pharmaceuticals, Inc. ("Spectrum")

In July 2013, Talon Therapeutics Inc. (formerly Hana Biosciences, Inc.) was acquired by Spectrum. Under a legacy license agreement, Spectrum has an exclusive license to three targeted chemotherapy products originally developed by us. Marqibo® (optisomal vincristine), Alocrest® (optisomal vinorelbine) and Brakiva® (optisomal topotecan). Spectrum will pay us milestones and single-digit royalties and is responsible for all future development and expenses.

We are eligible to receive milestone payments from Spectrum up to $18.0 million upon achievement of further development and regulatory milestones, as well as single-digit royalties based on product sales. If Spectrum sublicenses any of the product candidates, we are eligible to receive a percentage of any upfront fees or milestone payments received by Spectrum. On September 18, 2014, Spectrum announced that they have sublicensed rights to sell Marqibo in the Greater China region to CASI Pharmaceuticals, Inc. ("CASI"). CASI issued a promissory note for $1.5 million as up-front consideration for the sublicense. The promissory note is payable on March 17, 2016 at which time Spectrum will pay a portion to us. Depending on the royalty rates Spectrum receives from its sub-licensees, our royalty rate may be lower on product sales by the sub-licensees. The royalty rate will be reduced to low single digits if there is generic competition.

Marqibo is a novel, sphingomyelin/cholesterol liposome-encapsulated formulation of the FDA-approved anticancer drug vincristine originally developed by Tekmira. In September 2013, we announced that our licensee, Spectrum had launched Marqibo through its existing hematology sales force in the United States. Since then commercial sales have occurred. We are entitled to mid-single digit royalty payments based on Marqibo's commercial sales.

Marina Biotech, Inc. ("Marina") /Arcturus Therapeutics, Inc. ("Arcturus")

In November 2012, we disclosed that we had obtained a worldwide, non-exclusive license to a novel RNAi trigger technology called Unlocked Nucleobase Analog (UNA) from Marina for the development of RNAi therapeutics. UNAs can be incorporated into RNAi drugs and have the potential to improve them by increasing their stability and reducing off-target effects. In August 2013, Marina assigned its UNA technology to Arcturus and the UNA license agreement between Tekmira and Marina was assigned to Arcturus. The terms of the license are otherwise unchanged.

To date, we have paid Marina $0.5 million in license fees and there are milestones of up to $3.2 million plus royalties for each product that we develop using UNA technology licensed from Marina. We announced on January 21, 2015, that we had initiated a Phase I clinical trial with TKM-HBV. As TKM-HBV utilizes UNA technology in-licensed from Arcturus, the initiation of the trial triggered a single milestone payment of $250,000 payable by us to Arcturus.

U.S. National Institutes of Health ("NIH")

In October 2010, we announced that together with collaborators at The University of Texas Medical Branch (UTMB), we were awarded a new NIH grant to support research to develop RNAi therapeutics to treat Ebola and Marburg hemorrhagic fever viral infections using our LNP delivery technology. The grant, worth $2.4 million, is supporting work at Tekmira and at UTMB. In February 2014, we along with UTMB, and other collaborators, were awarded additional funding from the NIH in support of this research. Under this grant, we will receive $3.4 million over a period of five years.

Bristol-Myers Squibb Company ("BMS")

In May 2010, we announced a research collaboration with BMS. Under this agreement, BMS conducted preclinical work to validate the function of certain genes and shared the data with us to potentially develop RNAi therapeutic drugs against therapeutic targets of interest. We formulated the required RNAi trigger molecules enabled by our LNP technology to silence target genes of interest. BMS paid us $3.0 million concurrent with the signing of the agreement. We provided a predetermined number of LNP batches over the four-year agreement. In May 2011, we announced a further expansion of the collaboration to include broader applications of our LNP technology and additional target validation work. In May 2014, the collaboration expired and both parties' obligations ended. Recognition of revenue from agreements with BMS is covered in the Revenue section of this MD&A.

Halo-Bio RNAi Therapeutics, Inc. ("Halo-Bio")

In August 2011, we entered into a license and collaboration agreement with Halo-Bio. Under the agreement, Halo-Bio granted to us an exclusive license to its multivalent ribonucleic acid MV-RNA technology. The agreement was amended on August 8, 2012, to adjust future license fees and other contingent payments. To date, we have recorded $0.5 million in fees under our license from Halo-Bio. We terminated the agreement with Halo-Bio on July 31, 2013. There are no further payments due or contingently payable to Halo-Bio.

Aradigm Corporation ("Aradigm")

In December 2004, we entered into a licensing agreement with Aradigm under which Aradigm exclusively licensed certain of our liposomal intellectual property for the pulmonary delivery of Ciprofloxacin. As amended, this agreement calls for milestone payments totalling $4.5 and $4.75 million, respectively, for the first two disease indications pursued by Aradigm using our technology, and for low- to mid-single-digit royalties on sales revenue from products using our technology. We terminated the Aradigm license agreement in May 2013.

University of British Columbia ("UBC")

Certain early work on lipid nanoparticle delivery systems and related inventions was undertaken at the University of British Columbia (UBC). These inventions are licensed to us by UBC under a license agreement, initially entered in 1998 and as amended in 2001, 2006 and 2007. We have granted sublicenses under the UBC license to Alnylam as well as to Talon. Alnylam has in turn sublicensed back to us under the licensed UBC patents for discovery, development and commercialization of RNAi products. In mid-2009, we and our subsidiary Protiva entered into a supplemental agreement with UBC, Alnylam and Acuitas, in relation to a separate research collaboration to be conducted among UBC, Alnylam and Acuitas to which we have license rights. The settlement agreement signed in late 2012 to resolve the litigation among Alnylam, Acuitas, Tekmira and Protiva provided for the effective termination of all obligations under such supplemental agreement as between and among all litigants.

On November 10, 2014, the University of British Columbia filed a demand for arbitration against Tekmira Pharmaceuticals Corp., BCICAC File No.: DCA-1623. We received UBC's Statement of Claims on January 16, 2015. In its Statement of Claims, UBC alleges that it is entitled to $3.5 million in allegedly unpaid royalties based on publicly available information, and an unspecified amount based on non-public information. UBC also seeks interest and costs, including legal fees. Tekmira disputes UBC's allegation. No dates have been scheduled for this arbitration.

Newly acquired assets as a result of our merger with OnCore

In addition to the newly acquired product candidates discussed above, our merger with OnCore resulted in the acquisition of the following:

Cytos Biotechnology Ltd ("Cytos")

On December 30, 2014, OnCore entered into an exclusive, worldwide, sub-licensable (subject to certain restrictions with respect to licensed viral infections other than hepatitis) license to six different series of compounds. The licensed compounds are Qbeta-derived virus-like particles that encapsulate TLR9, TLR7 or RIG-I agonists and may or may not be conjugated with antigens from hepatitis virus or other licensed viruses. We have an option to expand this license to include additional viral infections other than influenza and Cytos will retain all rights for influenza, all non-viral infections, and all viral infections (other than hepatitis) for which we have not exercised an option.

In partial consideration for this license, upon closing of the Cytos Agreement we will be obligated to pay Cytos up to a total of $67 million for each of the six licensed compound series upon the achievement of specified development and regulatory milestones for hepatitis; and each additional licensed viral infection, up to a total of $110 million upon the achievement of specified sales performance milestones; and tiered royalty payments in the high-single to low-double digits, based upon the proportionate net sales of licensed products in any commercialized combination.

The Baruch S. Blumberg Institute ("Blumberg") and Drexel University ("Drexel")

In February 2014, OnCore entered into a license agreement with Blumberg and Drexel that granted us an exclusive (except as to certain know-how and subject to retained non-commercial research rights), worldwide, sub-licensable license to three different compound series: cccDNA inhibitors, capsid assembly inhibitors and HCC inhibitors.

In partial consideration for this license, OnCore paid a license initiation fee of $150,000 and issued warrants to Blumberg and Drexel. Under this license agreement, OnCore also agreed to pay up to $3.5 million in development and regulatory milestones per licensed compound series, up to $92.5 million in sales performance milestones per licensed product, and royalties in the mid-single digits based upon the proportionate net sales of licensed products in any commercialized combination. We are obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from the sub-licensees, subject to customary exclusions.

In November 2014, OnCore entered into an additional license agreement with Blumberg and Drexel pursuant to which OnCore received an exclusive (subject to retained non-commercial research rights), worldwide, sub-licensable license under specified patents and know-how controlled by Blumberg and Drexel covering epigenetic modifiers of cccDNA and STING agonists. In consideration for these exclusive licenses, OnCore made an upfront payment of $50,000. Under this agreement, we will be required to pay up to $1.0 million for each licensed product upon the achievement of a specified regulatory milestone and a low single digit royalty, based upon the proportionate net sales of compounds covered by this intellectual property in any commercialized combination. We are also obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from its sub-licensees, subject to exclusions.

Acquisition of Enantigen Therapeutics, Inc. ("Enantigen")

In October 2014, OnCore acquired all of the outstanding shares of Enantigen pursuant to a stock purchase agreement. Through this transaction, OnCore acquired a HBV surface antigen secretion inhibitor program and a capsid assembly inhibitor program, each of which are now assets of Tekmira, following the merger with OnCore.

Under the stock purchase agreement, we agreed to pay to Enantigen's selling stockholders up to a total of $21.0 million upon the achievement of specified development and regulatory milestones for the first two products that contain either a capsid compound, or a HBV surface antigen compound that is covered by a patent that acquired under this agreement, or a capsid compound from an agreed upon list of compounds, up to a total of $101.5 million in sales performance milestones in connection with the sale of the first commercialized product of Tekmira for the treatment of HBV, regardless of whether such product is based upon assets acquired under this agreement; and low single digit royalty on net sales of such first commercialized HBV product, up to a maximum royalty payment of $1.0 million that, if paid, would be offset against our milestone payment obligations.

License Agreements between Enantigen and Blumberg and Drexel

Under the stock purchase agreement, we also agreed to that Enantigen would fulfill its obligations under Enantigen's three patent license agreements with Blumberg and Drexel. Pursuant to each patent license agreement, Enantigen is obligated to pay Blumberg and Drexel up to approximately $500,000 in development and regulatory milestones per licensed product, royalties in the low single digits, and a percentage of revenue it receives from its sub-licensees.

Research Collaboration and Funding Agreement with Blumberg

In October 2014, OnCore entered into a research collaboration and funding agreement with Blumberg under which we will provide $1.0 million per year of research funding for three years, renewable at our option for an additional three years, for Blumberg to conduct research projects in HBV and liver cancer pursuant to a research plan to be agreed upon by the parties. Blumberg has exclusivity obligations to Tekmira with respect to HBV research funded under the agreement. In addition, we have the right to match any third party offer to fund HBV research that falls outside the scope of the research being funded under the agreement. Blumberg has granted us the right to obtain an exclusive, royalty bearing, worldwide license to any intellectual property generated by any funded research project. If we elect to exercise our right to obtain such a license, we will have a specified period of time to negotiate and enter into a mutually agreeable license agreement with Blumberg. This license agreement will include the following pre negotiated upfront, milestone and royalty payments: an upfront payment in the amount of $100,000; up to $8.1 million upon the achievement of specified development and regulatory milestones; up to $92.5 million upon the achievement of specified commercialization milestones; and royalties at a low single to mid-single digit rates based upon the proportionate net sales of licensed products from any commercialized combination.

NeuroVive Pharmaceutical AB ("NeuroVive")

In September 2014, OnCore entered into a license agreement with NeuroVive that granted us an exclusive, worldwide, sub-licensable license to develop, manufacture and commercialize, for the treatment of HBV, oral dosage form sanglifehrin based cyclophilin inhibitors (including OCB-030). Under this license agreement we have been granted a non-exclusive, royalty free right and license and right of reference to NeuroVive's relevant regulatory approvals and filings for the sole purpose of developing, manufacturing and commercializing licensed products for the treatment of HBV. Under this license agreement, we have (1) an option to expand our exclusive license to include treatment of viral diseases other than HBV and (2) an option, exercisable upon specified conditions, to expand our exclusive license to include development, manufacture and commercialization of non-oral variations of licensed products for treatment of viral diseases other than HBV. NeuroVive retains all rights with respect to development, manufacture and commercialization of licensed products and non-oral variations of licensed products for all indications (other than HBV) for which we have not exercised our option.

In partial consideration for this license, OnCore paid NeuroVive a license fee of $1 million. We are also obligated to pay up to $47.0 million in clinical development and regulatory milestones per indication and up to $102.5 million in sales performance milestones per licensed product and indication. If we are acquired by a third party in a transaction that meets certain criteria, then we or our acquiror will be obligated to pay all remaining development, regulatory and sales milestone payments, regardless of whether the applicable milestone events have been achieved, for each licensed product that entered clinical development before such acquisition. We agreed to pay NeuroVive tiered royalties in the mid-single to low-double digit range based upon the proportionate gross sales of patented licensed products from any commercialized combination. If we terminate this license agreement in its entirety for convenience prior to the first commercial sale of any licensed product, we will be obligated to pay NeuroVive $2 million.

Patents and Proprietary Rights

Our commercial success depends in part on our ability to obtain and maintain proprietary protection for our drug candidates, novel discoveries, product development technologies and other know-how, to operate without infringing on the proprietary rights of others and to prevent others from infringing our proprietary rights. Our policy is to seek to protect our proprietary position by, among other methods, filing or in licensing U.S. and foreign patents and patent applications related to our proprietary technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trademarks, trade secrets, know how, continuing technological innovation and potential in licensing opportunities to develop and maintain our proprietary position.

In addition to our proprietary expertise, we own a portfolio of patents and patent applications directed to LNP inventions, the formulation and manufacture of LNP-based pharmaceuticals, chemical modification of RNAi molecules, and RNAi drugs and processes directed at particular disease indications. We have filed many patent applications with the US and European Patent Offices that have been granted. In the US our patents might be challenged by interference or opposition proceedings. In Europe, upon grant, a period of nine months is allowed for notification of opposition to such granted patents. If our patents are subjected to interference or opposition proceedings, we would incur significant costs to defend them. Further, our failure to prevail in any such proceedings could limit the patent protection available to our RNAi platform, including our product candidates.

We have a portfolio of approximately 95 patent families, in the U.S. and abroad, that are directed to various aspects of LNPs and LNP formulations. The portfolio includes approximately 72 issued U.S. patents, approximately 71 issued non-U.S. patents, and approximately 229 pending patent applications, including the following patents and applications in the United States and Europe (1) :

Invention Category	Title	Priority Filing Date*	Status**	Expiration Date***
LNP	Lipid Encapsulated Interfering RNA	07/16/2003	U.S. Pat. No.7,982,027; applications pending in the U.S. and Europe	07/16/2024
LNP	Lipid Encapsulated Interfering RNA	06/07/2004	U.S. Pat. No. 7,799,565; European Pat. No.1766035; application pending in the U.S.	06/07/2025
LNP	Novel Lipid Formulations for Nucleic Acid Delivery	04/15/2008	U.S. Pat. Nos. 8,058,069; 8,492,359 and 8,822,668; applications pending in U.S. and Europe.	04/15/2029
LNP	Novel Lipid Formulations for Delivery of Therapeutic Agents to Solid Tumors	07/01/2009	U.S. Pat. No.8,283,333 Applications pending in the U.S. and Europe	06/30/2030
LNP Manufacturing	Liposomal Apparatus and Manufacturing Methods	06/28/2002	U.S. Pat. Nos. 7,901,708 and 8,329,070; European Pat. No. 1519714; application pending in the U.S.; application allowed in Europe	06/30/2023
LNP Manufacturing	Systems and Methods for Manufacturing Liposomes	07/27/2005	Application pending in the U.S. and Europe	07/27/2026
Novel Lipids	Cationic Lipids and Methods of Use	06/07/2004	U.S. Pat. No. 7,745,651; European Pat. No. 1781593; application pending in the U.S.	06/07/2025
Novel Lipids	Polyethyleneglycol-Modified Lipid Compounds and Uses Thereof	09/15/2003	U.S. Pat. No. 7,803,397; European Pat. No. 1664316; application pending in the U.S.	09/15/2024
Chemical Modifications	Modified siRNA Molecules and Uses Thereof	11/02/2005	U.S. Pat. Nos. 8,101,741,8,188,263 and 8,513,403; applications pending in Europe and the U.S.	11/02/2026
Chemical Modifications	Modified siRNA Molecules and Uses Thereof	06/09/2006	U.S. Pat. No. 7,915,399	06/08/2027
Therapeutic Target	siRNA Silencing of Apolipoprotein B	11/17/2004	Application pending in Europe	11/17/2025
Therapeutic Target	Compositions and Methods for Silencing Apolipoprotein B	07/01/2009	U.S. Pat. No. 8,236,943 application pending in Europe	06/30/2030
Therapeutic Target	siRNA Silencing of Filovirus Gene Expression	10/20/2005	U.S. Pat. No. 7,838,658	10/20/2026
Therapeutic Target	Compositions and Methods for Silencing Ebola Virus Gene Expression	07/20/2009	Application allowed in the U.S.	07/20/2030
Therapeutic Target	Silencing of Polo-Like Kinase Expression using Interfering RNA	12/27/2007	Applications pending in the U.S. and Europe	12/23/2028

(1) Patent information current as of January 8, 2015.
* Priority filing dates are based on the filing dates of provisional patent applications. Provisional applications expire unless they are converted to non-provisional applications within one year.
** An "allowed" patent application is an active case that has been found by the patent office to contain patentable subject matter, subject to the payment of issue/grant fees by the applicant.
*** Once issued, the term of a US patent first filed after mid-1995 generally extends until the 20th anniversary of the filing date of the first non-provisional application to which such patent claims priority. It is important to note, however, that the United States Patent & Trademark Office, or USPTO, sometimes requires the filing of a Terminal Disclaimer during prosecution, which may shorten the term of the patent. On the other hand, certain patent term adjustments may be available based on USPTO delays during prosecution. Similarly, in the pharmaceutical area, certain patent term extensions may be available based on the history of the drug in clinical trials. We cannot predict whether or not any such adjustments or extensions will be available or the length of any such adjustments or extensions.

Through our wholly-owned subsidiary, OnCore, we also have licenses to numerous patents and patent applications relating to HBV drug candidates, methods of manufacturing and development, diagnosis, treatment or prevention of hepatitis viruses in humans, among others.

Employees

At December 31, 2014, Tekmira had 103 employees, 75 of whom were engaged in research and development. As a result of our recent merger with OnCore, we are adding 11 additional employees. None of our employees are represented by a labor union or covered by a collective bargaining agreement, nor have we experienced any work stoppages. We believe that relations with our employees are good.

Corporate information

The company is comprised of six entities, Tekmira Pharmaceuticals Corporation ("Tekmira" or "we" or "us") and five wholly owned subsidiaries (Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc., Protiva Biotherapeutics (USA) Inc., OnCore Biopharma, Inc and Enantigen Therapeutics, Inc). Tekmira was incorporated pursuant to the British Columbia Business Corporations Act, or BCBCA, on October 6, 2005 and commenced active business on April 30, 2007 when Tekmira and its parent company, Inex Pharmaceuticals Corporation, or Inex, were reorganized under a statutory plan of arrangement (the Reorganization) completed under the provisions of the BCBCA. The Reorganization saw Inex's entire business transferred to and continued by Tekmira. Protiva Biotherapeutics Inc., is incorporated under the BCBCA and was acquired by Tekmira Pharmaceuticals Corporation on May 30, 2008. Protiva Biotherapeutics (USA) Inc., is incorporated in the State of Delaware and was acquired by Tekmira Pharmaceuticals Corporation on May 30, 2008. Protiva Agricultural Development Company Inc., is incorporated under the BCBCA and was formed on January 9, 2014. On March 4, 2015, we completed a business combination with OnCore Biopharma, Inc., that is intended to create a leading global hepatitis B virus (HBV) company focused on developing a curative regimen for HBV patients by combining multiple therapeutic approaches. OnCore has one subsidiary, Enantigen Therapeutics, Inc.

Tekmira's head office and principal place of business is located at 100—8900 Glenlyon Parkway, Burnaby, British Columbia, Canada, V5J 5J8 (telephone: (604) 419-3200). The Company's registered and records office is located at 700 West Georgia St, 25th Floor, Vancouver, British Columbia, Canada, V7Y 1B3. The address of the Seattle office is 1100 Dexter Ave N. Suite 100, Seattle, WA 98109. OnCore's offices are located at 3805 Old Easton Road, Doylestown, PA 18902.

Investor information

We are a reporting issuer in Canada under the securities laws of each of the Provinces of Canada. On March 3, 2015, Tekmira's common shares were voluntarily delisted from the Toronto Stock Exchange. Since November 15, 2010, Tekmira's common shares have been trading on the NASDAQ Global Market under the symbol "TKMR." Tekmira's common shares will continue to be listed and trade on the NASDAQ under the ticker symbol of "TKMR" and its Canadian shareholders will be able to continue to trade through their brokers on that exchange.

We maintain an internet website at http://www.tekmira.com. The information on our website is not incorporated by reference into this annual report on Form 10-K and should not be considered to be a part of this annual report on Form 10-K. Our website address is included in this annual report on Form 10-K as an inactive technical reference only. Our reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, including our annual reports on Form 10-K (annual reports on Form 20-F up to year-ended December 31, 2012), our quarterly reports on Form 10-Q (quarterly reports on Form 6-K up to quarter-ended September 30, 2013) and our current reports on Form 8-K, and amendments to those reports, are accessible through our website, free of charge, as soon as reasonably practicable after these reports are filed electronically with, or otherwise furnished to, the SEC. We also make available on our website the charters of our audit committee, executive compensation and human resources committee and corporate governance and nominating committee, whistleblower policy, insider trading policy, and majority voting policy, as well as our code of business conduct and ethics for directors, officers and employees. In addition, we intend to disclose on our web site any amendments to, or waivers from, our code of business conduct and ethics that are required to be disclosed pursuant to the SEC rules.

You may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy and information statements, and other information regarding Tekmira and other issuers that file electronically with the SEC. The SEC's Internet website address is http://www.sec.gov.

Item 1A. Risk Factors

Our business is subject to numerous risks. We caution you that the following important factors, among others, could cause our actual results to differ materially from those expressed in forward-looking statements made by us or on our behalf in filings with the SEC, press releases, communications with investors and oral statements. All statements other than statements relating to historical matters should be considered forward-looking statements. When used in this report, the words "believe," "expect," "plan," "anticipate," "estimate," "predict," "may" "could" "should," "intend," "will," "target," "goal" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these words. Any or all of our forward-looking statements in this annual report on Form 10-K and in any other public statements we make may turn out to be wrong. They can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in the discussion below will be important in determining future results. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially from those anticipated in forward-looking statements. We explicitly disclaim any obligation to update any forward-looking statements to reflect events or circumstances that arise after the date hereof. You are advised, however, to consult any further disclosure we make in our reports filed with the SEC.

Risks Related to Our Business

We are in the early stages of our development and because we have a short development history with ribonucleic acid interference (RNAi) and assets relating to HBV, there is a limited amount of information about us upon which you can evaluate our RNAi business and prospects, and our HBV business and prospects.

We have not begun to market or generate revenues from the commercialization of any RNAi products or our HBV products. We have only a limited history upon which one can evaluate our business and prospects as our therapeutic products are still at an early stage of development and thus we have limited experience and have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical area. For example, to execute our business plan, we will need to successfully:

- execute research and development activities using RNAi technology; and technologies involved in the development of HBV therapeutics;
- build, maintain and protect a strong intellectual property portfolio;
- gain acceptance for the development and commercialization of any product we develop;
- develop and maintain successful strategic relationships; and
- manage our spending and cash requirements as our expenses are expected to increase due to research and preclinical work, clinical trials, regulatory approvals, and commercialization and maintaining our intellectual property portfolio

If we are unsuccessful in accomplishing these objectives, we may not be able to develop products, raise capital, expand our business or continue our operations.

The approach we are taking to discover and develop novel drug products is unproven and may never lead to marketable drug products.

We intend to concentrate our internal research and development efforts in the future primarily on the discovery and development of therapeutics targeting chronic hepatitis B to be able to ultimately develop a cure for the disease. Our future success depends in part on the successful development of these therapeutics.

Our approach to the treatment of HBV is unproven, and we do not know whether we will be able to develop any drugs of commercial value.

There is no known cure for HBV. Any compounds that we develop may not effectively address the three key factors driving HBV persistence that we believe should be targeted in order to cure HBV. Even if we are able to develop compounds that address one or more of these key factors, targeting these key factors has not been proven to cure HBV. Further, our focus on the elimination of cccDNA as the critical component of developing a cure for HBV may be misplaced in the event that the elimination of cccDNA does not prove to contribute to a cure for HBV. In addition, we may be unable to develop a drug that successfully eliminates cccDNA. We may be unable to acquire additional drug candidates on terms acceptable to us, or at all. Even if we are able to acquire or develop drug candidates that address one of these mechanisms of action in preclinical studies, we may not succeed in demonstrating safety and efficacy of the drug candidate in human clinical trials. If we are unable to identify suitable compounds for preclinical and clinical development, we will not succeed in realizing our goal of a cure for HBV.

We also intend to continue research and development efforts on RNAi technology and products based on RNAi technology. While RNAi technology is based on a naturally occurring process that takes place inside cells, which can suppress the production of specific proteins, and has the potential to generate therapeutic drugs that take advantage of that process, neither we nor any other company has received regulatory approval to market a therapeutic product based on RNAi technology. The scientific discoveries that form the basis for our efforts to discover and develop new products are relatively new. While there are a number of RNAi therapeutics in development, very few product candidates based on these discoveries have ever been tested in humans and there can be no assurance that any RNAi therapeutic product will be approved for commercial use.

If we are not successful in developing a product with our research and development efforts, we may be required to change the scope and direction of our product development activities. In that case, we may not be able to identify and implement successfully an alternative product development strategy.

We expect to depend in part on our existing collaborators for a significant portion of our revenues and to develop, conduct clinical trials with, obtain regulatory approvals for, and manufacture, market and sell some of our product candidates. If these collaborations are unsuccessful, or anticipated milestone payments are not received, our business could be adversely affected.

We expect that we will depend in part on Alnylam, Spectrum, the DoD, and Monsanto to provide revenue to fund our operations, especially in the near term. The DoD represented 63% of our operating revenue for the year ended December 31, 2014. Furthermore, our strategy is to enter into various additional arrangements with corporate and academic collaborators, licensors, licensees and others for the research, development, clinical testing, manufacturing, marketing and commercialization of our products. We may be unable to continue to establish such collaborations, and any collaborative arrangements we do establish may be unsuccessful, or we may not receive milestone payments as anticipated.

Should any collaborative partner fail to develop or ultimately successfully commercialize any of the products to which it has obtained rights, our business may be adversely affected. In addition, once initiated, there can be no assurance that any of these collaborations will be continued or result in successfully commercialized products. Failure of a collaborative partner to continue funding any particular program could delay or halt the development or commercialization of any products arising out of such program. In addition, there can be no assurance that the collaborative partners will not pursue alternative technologies or develop alternative products either on their own or in collaboration with others, including our competitors, as a means for developing treatments for the diseases targeted by our programs.

We expect to spend substantial amounts to acquire additional drug candidates, to conduct further research and development and preclinical testing and clinical trials of our drug candidates, to seek regulatory approvals for our drug candidates and to launch and commercialize any drug candidates for which we receive regulatory approval. These expenditures will include costs associated with our and our subsidiary's licensing agreements with Blumberg, or Drexel, and NeuroVive and Cytos. Under the terms of these agreements, we are obligated to make significant cash payments upon the achievement of specified development, regulatory and sales performance milestones, as well as royalty payments in connection with the sale of licensed products, to our licensors.

We expect the DoD to fund our TKM-Ebola program through to completion of a Phase 1 human safety clinical trial and possibly beyond that to FDA drug approval. The quantum and timing of funding may not be what we have projected and the DoD could cancel this funding at any time.

We have a contract with the DoD for $43.8 million for our TKM-Ebola program through to the completion of a Phase 1 human safety clinical trial and certain manufacturing objectives. The DoD may later extend the contract to cover the entire TKM-Ebola program through to FDA drug approval.

This is our first DoD contract of any notable size. Our lack of experience in dealing with the DoD brings uncertainty into our cash flow projections and uncertainty into our ability to execute the contract within DoD requirements. Furthermore, there is inherent risk in projecting cash flows years ahead for such a complex program. The quantum and timing of funding for the TKM-Ebola program may not be what we have projected and under the terms of the contract or the proposed modification to the contract and the DoD could cancel or suspend this funding, which is paid through monthly reimbursements, at any time.

We rely on third parties to conduct our clinical trials, and if they fail to fulfill their obligations, our development plans may be adversely affected.

We rely on independent clinical investigators, contract research organizations and other third-party service providers to assist us in managing, monitoring and otherwise carrying out our clinical trials. We have contracted with, and we plan to continue to contract with, certain third parties to provide certain services, including site selection, enrolment, monitoring and data management services. Although we depend heavily on these parties, we do not control them and therefore, we cannot be assured that these third parties will adequately perform all of their contractual obligations to us. If our third-party service providers cannot adequately fulfill their obligations to us on a timely and satisfactory basis or if the quality or accuracy of our clinical trial data is compromised due to failure to adhere to our protocols or regulatory requirements, or if such third parties otherwise fail to meet deadlines, our development plans may be delayed or terminated.

We have no sales, marketing or distribution experience and would have to invest significant financial and management resources to establish these capabilities.

We have no sales, marketing or distribution experience. We currently expect to rely heavily on third parties to launch and market certain of our products, if approved. However, if we elect to develop internal sales, distribution and marketing capabilities, we will need to invest significant financial and management resources. For products where we decide to perform sales, marketing and distribution functions ourselves, we could face a number of additional risks, including:

- we may not be able to attract and build a significant marketing or sales force;
- the cost of establishing a marketing or sales force may not be justifiable in light of the revenues generated by any particular product; and
- our direct sales and marketing efforts may not be successful.

If we are unable to develop our own sales, marketing and distribution capabilities, we will not be able to successfully commercialize our products, if approved, without reliance on third parties.

We will rely on third-party manufacturers to manufacture our products (if approved) in commercial quantities, which could delay, prevent or increase the costs associated with the future commercialization of our products.

Our product candidates have not yet been manufactured for commercial use. If any of our product candidates become approved for commercial sale, in order to supply our or our collaborators' commercial requirements for such an approved product, we will need to establish third-party manufacturing capacity. Any third-party manufacturing partner may be required to fund capital improvements to support the scale-up of manufacturing and related activities. The third-party manufacturer may not be able to establish scaled manufacturing capacity for an approved product in a timely or economic manner, if at all. If a manufacturer is unable to provide commercial quantities of such an approved product, we will have to successfully transfer manufacturing technology to a new manufacturer. Engaging a new manufacturer for such an approved product could require us to conduct comparative studies or utilize other means to determine bioequivalence of the new and prior manufacturers' products, which could delay or prevent our ability to commercialize such an approved product. If any of these manufacturers is unable or unwilling to increase its manufacturing capacity or if we are unable to establish alternative arrangements on a timely basis or on acceptable terms, the development and commercialization of such an approved product may be delayed or there may be a shortage in supply. Any inability to manufacture our products in sufficient quantities when needed would seriously harm our business.

Manufacturers of our approved products, if any, must comply with current good manufacturing practices (cGMP) requirements enforced by the FDA and Health Canada through facilities inspection programs. These requirements include quality control, quality assurance, and the maintenance of records and documentation. Manufacturers of our approved products, if any, may be unable to comply with these cGMP requirements and with other FDA, Health Canada, state, and foreign regulatory requirements. We have little control over our manufacturers' compliance with these regulations and standards. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval. If the safety of any quantities supplied is compromised due to our manufacturer's failure to adhere to applicable laws or for other reasons, we may not be able to obtain regulatory approval for or successfully commercialize our products, which would seriously harm our business.

Risks Related to Our Financial Results and Need for Financing

We will require substantial additional capital to fund our operations. If additional capital is not available, we may need to delay, limit or eliminate our research, development and commercialization processes and may need to undertake a restructuring.

Within the next several years, substantial additional funds will be required to continue with the active development of our pipeline products and technologies. In particular, our funding needs may vary depending on a number of factors including:

- revenues earned from our partners, including Alnylam, Spectrum, Monsanto, and Dicerna;
- revenues earned from our DoD contract to develop TKM-Ebola;
- the extent to which we continue the development of our product candidates or form collaborative relationships to advance our products;
- our decisions to in-license or acquire additional products or technology for development,
- our ability to attract and retain corporate partners, and their effectiveness in carrying out the development and ultimate commercialization of our product candidates;
- whether batches of drugs that we manufacture fail to meet specifications resulting in delays and investigational and remanufacturing costs;
- the decisions, and the timing of decisions, made by health regulatory agencies regarding our technology and products;
- competing technological and market developments; and
- prosecuting and enforcing our patent claims and other intellectual property rights.

We will seek to obtain funding to maintain and advance our business from a variety of sources including public or private equity or debt financing, collaborative arrangements with pharmaceutical and biotechnology companies and government grants and contracts. There can be no assurance that funding will be available at all or on acceptable terms to permit further development of our products especially in light of the current difficult climate for investment in early stage biotechnology companies.

If adequate funding is not available, we may be required to delay, reduce or eliminate one or more of our research or development programs or reduce expenses associated with non-core activities. We may need to obtain funds through arrangements with collaborators or others that may require us to relinquish most or all of our rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise seek if we were better funded. Insufficient financing may also mean failing to prosecute our patents or relinquishing rights to some of our technologies that we would otherwise develop or commercialize.

We have incurred losses in nearly every year since our inception and we anticipate that we will not achieve sustained profits for the foreseeable future. To date, we have had no product revenues.

With the exception of the year ended December 31, 2006 and December 31, 2012, we have incurred losses each fiscal year since inception until December 31, 2014 and have not received any revenues other than from research and development collaborations, license fees and milestone payments. From inception to December 31, 2014, we have an accumulated net deficit of $ 206 million. As we continue our research and development and clinical trials and seek regulatory approval for the sale of our product candidates, we do not expect to attain sustained profitability for the foreseeable future. We do not expect to achieve sustained profits until such time as strategic alliance payments, product sales and royalty payments, if any, generate sufficient revenues to fund our continuing operations. We cannot predict if we will ever achieve profitability and, if we do, we may not be able to remain consistently profitable or increase our profitability.

Risks Related to Managing Our Operations

If we are unable to attract and retain qualified key management, scientific staff, consultants and advisors, our ability to implement our business plan may be adversely affected.

We depend upon our senior executive officers as well as key scientific, management and other personnel. The competition for qualified personnel in the biotechnology field is intense. We rely heavily on our ability to attract and retain qualified managerial, scientific and technical staff. The loss of the service of any of the members of our senior management, including Dr. Mark Murray, our Chief Executive Officer, may adversely affect our ability to develop our technology, add to our pipeline, advance our product candidates and manage our operations.

We may have difficulty managing our growth and expanding our operations successfully as we seek to evolve from a company primarily involved in discovery and preclinical testing into one that develops products through clinical development and commercialization.

As product candidates we develop enter and advance through clinical trials, we will need to expand our development, regulatory, manufacturing, clinical and medical capabilities or contract with other organizations to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various collaborators, suppliers and other organizations. Our ability to manage our operations and growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. We may not be able to implement improvements to our management information and control systems in an efficient or timely manner and may discover deficiencies in existing systems or controls.

We could face liability from our controlled use of hazardous and radioactive materials in our research and development processes.

We use certain radioactive materials, biological materials and chemicals, including organic solvents, acids and gases stored under pressure, in our research and development activities. Our use of radioactive materials is regulated by the Canadian Nuclear Safety Commission for the possession, transfer, import, export, use, storage, handling and disposal of radioactive materials. Our use of biological materials and chemicals, including the use, manufacture, storage, handling and disposal of such materials and certain waste products is regulated by a number of federal, provincial and local laws and regulations. Although we believe that our safety procedures for handling such materials comply with the standards prescribed by such laws and regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources. We are not specifically insured with respect to this liability.

Our business and operations could suffer in the event of information technology system failures.

Despite the implementation of security measures, our internal computer systems and those of our contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war, and telecommunication and electrical failures. Such events could cause interruption of our operations. For example, the loss of pre-clinical trial data or data from completed or ongoing clinical trials for our product candidates could result in delays in our regulatory filings and development efforts and significantly increase our costs. To the extent that any disruption or security breach will result in a loss of or damage to our data, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the development of our product candidates could be delayed.

If, in the future, our internal control over financial reporting is not effective, it could have a material adverse effect on our stock price and our ability to raise capital.

We have completed an independent audit of our internal control over financial reporting for our fiscal year ending December 31, 2014 and no material weaknesses have been identified. If our internal control over financial reporting is determined in the future to not be effective, whether by our management or by our independent auditors, there could be an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements, which could materially adversely affect our stock price and our ability to raise capital necessary to operate our business. In addition, we may be required to incur costs in improving our internal control system and hiring additional personnel.

The failure to integrate successfully the businesses of Tekmira and OnCore in the expected timeframe would adversely affect Tekmira's future results following the completion of the merger.

Tekmira recently closed a merger transaction whereby OnCore became its wholly owned subsidiary. The success of Tekmira will depend, in large part, on the ability of Tekmira to realize the anticipated benefits from this merger, including operating synergies, from combining the businesses of Tekmira and OnCore. To realize these anticipated benefits, Tekmira must successfully integrate the businesses of Tekmira and OnCore. This integration will be complex and time-consuming. Tekmira can offer no assurance that it realize the benefits anticipated to result from the merger.

Potential difficulties that may be encountered in the integration process include the following:

• complexities associated with managing the larger, combined business;
• integrating personnel from the two companies;
• potential unknown liabilities and unforeseen expenses, delays or regulatory conditions associated with the merger;
• performance shortfalls at one or both of the companies as a result of the diversion of management's attention caused by completing the merger and integrating the companies' operations and
• challenges related to the management and monitoring of new operations and associated increased costs and complexity.

Tekmira's success will be dependent on its ability to maintain and renew relationships with pre-existing third party relationships. There can be no assurance that the business of Tekmira will be able to maintain pre-existing business relationships, or enter into or maintain new business relationships, on acceptable terms, if at all. The failure to maintain important pre-existing third party relationships could have a material adverse effect on the business, financial condition or results of operations of Tekmira.

Risks Related to Development, Clinical Testing and Regulatory Approval of Our Product Candidates

The manufacture and sale of human therapeutic products are governed by a variety of statutes and regulations. There can be no assurance that our product candidates will obtain regulatory approval.

To obtain marketing approval, U.S. and Canadian laws require:

- controlled research and human clinical testing;
- establishment of the safety and efficacy of the product for each use sought;
- government review and approval of a submission containing manufacturing, pre-clinical and clinical data;
- adherence to Good Manufacturing Practice Regulations during production and storage; and
- control of marketing activities, including advertising and labelling

The product candidates we currently have under development will require significant development, pre-clinical trial and clinical testing and investment of significant funds before their commercialization. Some of our product candidates, if approved, will require the completion of post-market studies. There can be no assurance that such products will be developed. The process of completing clinical testing and obtaining required approvals is likely to take a number of years and require the use of substantial resources. If we fail to obtain regulatory approvals, our operations will be adversely affected. Further, there can be no assurance that product candidates employing a new technology will be shown to be safe and effective in clinical trials or receive applicable regulatory approvals.

Other markets have regulations and restrictions similar to those in the U.S. and Canada. Investors should be aware of the risks, problems, delays, expenses and difficulties which we may encounter in view of the extensive regulatory environment which affects our business in any jurisdiction where we develop product candidates.

If testing of a particular product candidate does not yield successful results, then we will be unable to commercialize that product candidate.

We must demonstrate our product candidates' safety and efficacy in humans through extensive clinical testing. Our research and development programs are at an early stage of development. We may experience numerous unforeseen events during, or as a result of, the testing process that could delay or prevent commercialization of any products, including the following:

- decreased demand for our product candidates;
- impairment of our business reputation;
- withdrawal of clinical trial participants;
- costs of related litigation;
- substantial monetary awards to patients or other claimants;
- loss of revenues; and
- inability to commercialize our product candidates.

Although we currently have product liability insurance coverage for our clinical trials for expenses or losses, our insurance coverage is limited to $10 million per occurrence, and $10 million in the aggregate, and may not reimburse us or may not be sufficient to reimburse us for any or all expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. On occasion, large judgments have been awarded in class action lawsuits based on products that had unanticipated side effects. A successful product liability claim or series of claims brought against us could cause our stock price to fall and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

The Animal Rule is a new and seldom-used approach to seeking approval of a new drug, and our TKM-Ebola program may not meet the requirements for this path to regulatory approval.

We plan to develop the TKM-Ebola therapeutic product candidate to treat Ebola virus using the "Animal Rule" regulatory mechanism. Pursuant to the Animal Rule, we must demonstrate efficacy in animal models and safety in humans. There is no guarantee that the FDA will agree to this approach for the development of TKM-Ebola, considering that no validated animal model has been established as predicting human outcomes in the prevention or treatment of the Ebola virus. The FDA may decide that our data are insufficient for approval and require additional pre-clinical, clinical, or other studies, or refuse to approve our products, or place restrictions on our ability to commercialize those products. Animal models represent, at best, a rough approximation of efficacy in humans, and, as such, countermeasures developed using animal models will be untested until their use in humans during an emergency.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our drug candidates and affect the prices we may obtain.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or delay marketing approval of our drug candidates, restrict or regulate post approval activities and affect our ability to profitably sell any products for which we obtain marketing approval.

For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care Education Reconciliation Act, or collectively the Affordable Care Act, was enacted to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. Although it is too early to determine the effect of the Affordable Care Act, the new law appears likely to continue the downward pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

Moreover, the recently enacted Drug Supply Chain Security Act imposes new obligations on manufacturers of pharmaceutical products related to product and tracking and tracing. Legislative and regulatory proposals have been made to expand post approval requirements and restrict sales and promotional activities for pharmaceutical products. We are not sure whether additional legislative changes will be enacted, or whether the current regulations, guidance or interpretations will be changed, or what the impact of such changes on our business, if any, may be.

Coverage and adequate reimbursement may not be available for our drug candidates, which could make it difficult for us to sell our products profitably.

Market acceptance and sales of any drug candidates that we develop, will depend in part on the extent to which reimbursement for these products and related treatments will be available from third party payors, including government health administration authorities and private health insurers. Third party payors decide which drugs they will pay for and establish reimbursement levels. Third party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. However, decisions regarding the extent of coverage and amount of reimbursement to be provided for each of our drug candidates will be made on a plan by plan basis. One payors determination to provide coverage for a product does not assure that other payors will also provide coverage, and adequate reimbursement, for the product. Additionally, a third party payors decision to provide coverage for a drug does not imply that an adequate reimbursement rate will be approved. Each plan determines whether or not it will provide coverage for a drug, what amount it will pay the manufacturer for the drug, and on what tier of its formulary the drug will be placed. The position of a drug on a formulary generally determines the copayment that a patient will need to make to obtain the drug and can strongly influence the adoption of a drug by patients and physicians. Patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products.

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Third party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. We cannot be sure that coverage and reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Inadequate coverage and reimbursement may impact the demand for, or the price of, any product for which we obtain marketing approval. If coverage and adequate reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize any drug candidates that we develop.

Additionally, there have been a number of legislative and regulatory proposals to change the healthcare system in the United States and in some foreign jurisdictions that could affect our ability to sell any future drugs profitably. These legislative and regulatory changes may negatively impact the reimbursement for any future drugs, following approval.

Risks Related to Patents, Licenses and Trade Secrets

Other companies or organizations may assert patent rights that prevent us from developing or commercializing our products.

RNA interference is a relatively new scientific field that has generated many different patent applications from organizations and individuals seeking to obtain patents in the field. These applications claim many different methods, compositions and processes relating to the discovery, development and commercialization of RNAi therapeutic products. Because the field is so new, very few of these patent applications have been fully processed by government patent offices around the world, and there is a great deal of uncertainty about which patents will be issued, when, to whom, and with what claims. It is likely that there could be litigation and other proceedings, such as interference and opposition proceedings in various patent offices, relating to patent rights in RNAi.

In addition, there are many issued and pending patents that claim aspects of RNAi trigger chemistry technology that we may need to apply to our product candidates. There are also many issued patents that claim genes or portions of genes that may be relevant for RNAi trigger drug products we wish to develop. Thus, it is possible that one or more organizations will hold patent rights to which we will need a license. If those organizations refuse to grant us a license to such patent rights on reasonable terms, we will not be able to market products or perform research and development or other activities covered by these patents.

Our patents and patent applications may be challenged and may be found to be invalid, which could adversely affect our business.

Certain Canadian, U.S. and international patents and patent applications we own involve complex legal and factual questions for which important legal principles are largely unresolved. For example, no consistent policy has emerged for the breadth of biotechnology patent claims that are granted by the U.S. Patent and Trademark Office or enforced by the U.S. federal courts. In addition, the coverage claimed in a patent application can be significantly reduced before a patent is issued. Also, we face the following intellectual property risks:

- some or all patent applications may not result in the issuance of a patent;
- patents issued may not provide the holder with any competitive advantages;
- patents could be challenged by third parties;
- the patents of others, including Alnylam, could impede our ability to do business;
- competitors may find ways to design around our patents; and
- competitors could independently develop products which duplicate our products.

A number of industry competitors and institutions have developed technologies, filed patent applications or received patents on various technologies that may be related to or affect our business. Some of these technologies, applications or patents may conflict with our technologies or patent applications. Such conflict could limit the scope of the patents, if any, that we may be able to obtain or result in the denial of our patent applications. In addition, if patents that cover our activities are issued to other companies, there can be no assurance that we would be able to obtain licenses to these patents at a reasonable cost or be able to develop or obtain alternative technology. If we do not obtain such licenses, we could encounter delays in the introduction of products, or could find that the development, manufacture or sale of products requiring such licenses is prohibited. In addition, we could incur substantial costs in defending patent infringement suits brought against us or in filing suits against others to have such patents declared invalid. As publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain we or any licensor was the first creator of inventions covered by pending patent applications or that we or such licensor was the first to file patent applications for such inventions. Any future proceedings could result in substantial costs, even if the eventual outcomes are favorable. There can be no assurance that our patents, if issued, will be held valid or enforceable by a court or that a competitor's technology or product would be found to infringe such patents.

Our business depends, in part, on our ability to use RNAi technology that we have licensed or will in the future license from third parties, including Alnylam, and, if these licenses were terminated or if we were unable to license additional technology we may need in the future, our business will be adversely affected.

We currently hold licenses for certain technologies that are or may be applicable to our current and subsequent product candidates. These include a license to patents held or applied for by Alnylam and a license to UNA technology from Arcturus Therapeutics. The licenses are subject to termination in the event of a breach by us of the license, if we fail to cure the breach following notice and the passage of a cure period. The UBC license, which is sublicensed to Alnylam, is subject to termination with respect to one or more particular patents if we and Alnylam were to cease patent prosecution or maintenance activities with respect to such patent(s), or in the event of a breach by us of the license, if we fail to cure the breach following notice and the passage of a cure period. There can be no assurance that these licenses will not be terminated. We may need to acquire additional licenses in the future to technologies developed by others, including Alnylam. For example, Alnylam has granted us a worldwide license for the discovery, development and commercialization of RNAi products directed to thirteen gene targets (three exclusive and ten non-exclusive licenses). Licenses for the five non-exclusive targets and one exclusive target have already been granted. We have rights to select the gene targets for up to two more exclusive licenses and five more nonexclusive licenses from Alnylam, which would be made available to us only if they have not been previously selected by Alnylam or one of its other partners. This will limit the targets available for selection by us, and we may never be able to select gene targets or may be required to make our selection from gene targets that have minimal commercial potential. Furthermore, future license agreements may require us to make substantial milestone payments. We will also be obligated to make royalty payments on the sales, if any, of products resulting from licensed RNAi technology. For some of our licensed RNAi technology, we are responsible for the costs of filing and prosecuting patent applications. The termination of a license or the inability to license future technologies on acceptable terms may adversely affect our ability to develop or sell our products.

Our business depends, in part, on our ability to use the technology that we have licensed or will in the future license from third parties, including Blumberg, NeuroVive and Cytos, and, if these licenses were terminated or if we were unable to license additional technology we may need in the future, our business will be adversely affected.

Through our wholly owned subsidiary, OnCore, we have licensed certain of our intellectual property from Blumberg and NeuroVive and Cytos. Our current technology licenses are critical to our business and we expect to enter into additional licenses in the future. If we fail to comply with our obligations under these agreements or any future license agreements, we are subject to a bankruptcy, or if we grant a sublicense in the future and our sublicense does not comply with our obligations under these agreements or becomes subject to a bankruptcy, the licensor may have the right to terminate the license, in which event we would not be able to develop or market products covered by the license or may face other penalties under the agreements, which would have a materially adverse effect on our business. In addition, applicable laws involving bankruptcy or similar proceeding by licensors in some jurisdictions outside the United States may provide the trustee or receiver in such proceeding with the right to set aside or otherwise terminate or seek to modify the license. Any termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or amended agreements with less favorable terms, or cause us to lose our rights under these agreements, including our rights to important intellectual property and technologies that form the basis of our technology, which may then be in licensed by one or more of our competitors.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights which could have a material adverse effect on our business, financial condition and results of operations and could cause the market value of our Common Shares to decline.

There has been significant litigation in the biotechnology industry over contractual obligations, patents and other proprietary rights, and we may become involved in various types of litigation that arise from time to time. Involvement in litigation could consume a substantial portion of our resources, regardless of the outcome of the litigation. Counterparties in litigation may be better able to sustain the costs of litigation because they have substantially greater resources. If claims against us are successful, in addition to any potential liability for damages, we could be required to obtain a license, grant cross-licenses, and pay substantial milestones or royalties in order to continue to develop, manufacture or market the affected products. Involvement and continuation of involvement in litigation may result in significant and unsustainable expense, and divert management's attention from ongoing business concerns and interfere with our normal operations. Litigation is also inherently uncertain with respect to the time and expenses associated therewith, and involves risks and uncertainties in the litigation process itself, such as discovery of new evidence or acceptance of unanticipated or novel legal theories, changes in interpretation of the law due to decisions in other cases, the inherent difficulty in predicting the decisions of judges and juries and the possibility of appeals. Ultimately we could be prevented from commercializing a product or be forced to cease some aspect of our business operations as a result of claims of patent infringement or violation of other intellectual property rights and the costs associated with litigation, which could have a material adverse effect on our business, financial condition, and operating results and could cause the market value of our Common Shares to decline.

Confidentiality agreements with employees and others, including collaborators, may not adequately prevent disclosure of trade secrets and other proprietary information.

Much of our know-how and technology may constitute trade secrets. There can be no assurance, however, that we will be able to meaningfully protect our trade secrets. In order to protect our proprietary technology and processes, we rely in part on confidentiality agreements with our collaborators, employees, vendors, consultants, outside scientific collaborators and sponsored researchers, and other advisors. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover trade secrets and proprietary information, and in such cases we could not assert any trade secret rights against such party. Costly and time consuming litigation could continue to be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

Risks Related to Competition

The pharmaceutical market is intensely competitive. If we are unable to compete effectively with existing drugs, new treatment methods and new technologies, we may be unable to successfully commercialize any product candidates that we develop.

The pharmaceutical market is intensely competitive and rapidly changing. Many large pharmaceutical and biotechnology companies, academic institutions, governmental agencies and other public and private research organizations are pursuing the development of novel drugs for the same diseases that we are targeting or expect to target. Many of our competitors have:

- much greater financial, technical and human resources than we have at every stage of the discovery, development, manufacture and commercialization process;
- more extensive experience in pre-clinical testing, conducting clinical trials, obtaining regulatory approvals, and in manufacturing, marketing and selling pharmaceutical products;
- product candidates that are based on previously tested or accepted technologies;
- products that have been approved or are in late stages of development; and
- collaborative arrangements in our target markets with leading companies and research institutions.

We will face intense competition from products that have already been approved and accepted by the medical community for the treatment of the conditions for which we are currently developing products. We also expect to face competition from new products that enter the market. We believe a significant number of products are currently under development, and may become commercially available in the future, for the treatment of conditions for which we may try to develop products. These products, or other of our competitors' products, may be more effective, safer, less expensive or marketed and sold more effectively, than any products we develop.

We are aware of several companies that are working to develop drugs that would compete against our drug candidates for HBV treatment. As a significant unmet medical need exists for HBV, there are several large and small pharmaceutical companies focused on delivering therapeutics for treatment of HBV. Further, it is likely that additional drugs will become available in the future for the treatment of HBV. We will face competition from other drugs currently approved or that will be approved in the future for the treatment of chronic hepatitis B.

There are a large number of companies that are developing new agents for use in cancer therapy including RNAi therapeutics, and there are other companies developing small molecule drugs designed to inhibit the PLK1 target, including Onconova Therapeutics and Millennium/Takeda. These agents may be competitive with our product candidate TKM-PLK1.

We anticipate significant competition in the HBV market with several early phase product candidates announced. In addition, there are organizations working on treatments for Ebola virus disease and other hemorrhagic fever viruses. We will also face competition for other product candidates that we expect to develop in the future.

If we successfully develop product candidates, and obtain approval for them, we will face competition based on many different factors, including the following:

- safety and effectiveness of our products
- ease with which our products can be administered and the extent to which patients and physicians accept new routes of administration;
- timing and scope of regulatory approvals for these products;
- availability and cost of manufacturing, marketing and sales capabilities;
- price;
- reimbursement coverage; and
- patent position.

Our competitors may develop or commercialize products with significant advantages over any products we develop based on any of the factors listed above or on other factors. Our competitors may therefore be more successful in commercializing their products than we are which could adversely affect our competitive position and business. Competitive products may make any products we develop obsolete or uncompetitive before we can recover the expenses of developing and commercializing our product candidates. Such competitors could also recruit our employees, which could negatively impact our level of expertise and the ability to execute on our business plan. Furthermore, we also face competition from existing and new treatment methods that reduce or eliminate the need for drugs, such as the use of advanced medical devices. The development of new medical devices or other treatment methods for the diseases we are targeting and may target could make our product candidates non-competitive, obsolete or uneconomical.

We face competition from other companies that are working to develop novel products using technology similar to ours. If these companies develop products more rapidly than we do or their technologies, including delivery technologies, are more effective than ours, then our ability to successfully commercialize products will be adversely affected.

In addition to the competition we face from competing products in general, we also face competition from other companies working to develop novel products using technology that competes more directly with our own. There are multiple companies working in the field of RNAi, including major pharmaceutical companies such as Novartis International AG, Takeda Pharmaceutical Company Limited, and Merck, and biotechnology companies such as Alnylam, Quark Pharmaceuticals, Inc., Silence Therapeutics plc, Arrowhead Research Corporation and its subsidiary, Calando Pharmaceuticals, Inc., Marina, RXi Pharmaceuticals Corporation, Dicerna Pharmaceuticals, Inc., Sylentis S.A., Santaris Pharma A/S, and Benitec Ltd., among others. Any of these companies may develop its RNAi technology more rapidly and more effectively than we do or may develop products against the same target or disease indication that we are pursuing.

We also compete with companies working to develop antisense-based drugs, such as Isis Pharmaceuticals, Inc. and Sarepta. Like RNAi therapeutic products, antisense drugs target messenger RNAs, or mRNAs, in order to suppress the activity of specific genes. Isis is the developer of a currently approved antisense drug and has several antisense product candidates in clinical trials. Isis has also licensed its antisense technology to a number of other companies that are developing antisense-based drugs. The development of antisense drugs is more advanced than that of RNAi therapeutic products, and antisense technology may become the preferred technology for products that target mRNAs to silence specific genes.

In addition to competition with respect to RNAi and with respect to specific products, we face substantial competition to discover and develop safe and effective means to deliver RNAi triggers to the relevant cell and tissue types. Our competitors may develop safer and more effective means to deliver RNAi triggers to the relevant cell and tissue types than our existing lipid nanoparticle delivery technology, and our ability to successfully commercialize our products would be adversely affected. In addition, substantial resources are being expended by third parties in the effort to discover and develop alternative means of delivering RNAi triggers into the relevant cell and tissue types, both in academic laboratories and in the corporate sector. Some of our competitors have substantially greater resources than we do, and if our competitors are able to negotiate exclusive access to those delivery solutions developed by third parties, we may be unable to successfully commercialize our product candidates.

We face significant competition from other biotechnology and pharmaceutical companies targeting HBV.

As a significant unmet medical need exists for HBV, there are several large and small pharmaceutical companies focused on delivering therapeutics for treatment of HBV. Further, it is likely that additional drugs will become available in the future for the treatment of HBV.

We are aware of several companies that are working to develop drugs that would compete against our drug candidates for HBV treatment. Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of drug candidates, as well as in obtaining regulatory approvals of those drug candidates in the United States and in foreign countries. Our current and potential future competitors also have significantly more experience commercializing drugs that have been approved for marketing. Mergers and acquisitions in the pharmaceutical and biotechnology industries could result in even more resources being concentrated among a small number of our competitors.

Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Our competitors may succeed in developing, acquiring or licensing, on an exclusive basis, drug candidates that are more effective or less costly than any drug candidate that we may develop.

We will face competition from other drugs currently approved or that will be approved in the future for the treatment of HBV. Therefore, our ability to compete successfully will depend largely on our ability to:

- discover, develop and commercialize drugs that are superior to other products in the market;
- demonstrate through our clinical trials that our drug candidates are differentiated from existing and future therapies;
- attract qualified scientific, product development and commercial personnel;
- obtain patent or other proprietary protection for our drugs and technologies;

- obtain required regulatory approvals;
- successfully collaborate with pharmaceutical companies in the discovery, development and commercialization of new drugs; and
- negotiate competitive pricing and reimbursement with third party payors.

The availability of our competitors' products could limit the demand, and the price we are able to charge, for any drug candidate we develop. The inability to compete with existing or subsequently introduced drug candidates would have a material adverse impact on our business, financial condition and prospects.

Established pharmaceutical companies may invest heavily to accelerate discovery and development of novel compounds or to in license novel compounds that could make our drug candidates less competitive. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Accordingly, our competitors may succeed in obtaining patent protection, discovering, developing or receiving FDA approval for or commercializing medicines before we do, which would have a material adverse impact on our business.

Risks Related to the Ownership of our Common Shares

If our stock price fluctuates, our investors could incur substantial losses.

The market price of our Common Shares may fluctuate significantly in response to factors that are beyond our control. The stock market in general has recently experienced extreme price and volume fluctuations. The market prices of securities of pharmaceutical and biotechnology companies have been extremely volatile, and have experienced fluctuations that often have been unrelated or disproportionate to the operating performance of these companies. These broad market fluctuations could result in extreme fluctuations in the price of our Common Shares, which could cause our investors to incur substantial losses.

There is no assurance that an active trading market in our Common Shares will be sustained.

Our Common Shares are listed for trading on the NASDAQ exchange. However, there can be no assurances that an active trading market in our Common Shares on these stock exchanges will be sustained.

We are incorporated in Canada and the majority of our assets, and some of our officers reside outside the United States, with the result that it may be difficult for investors to enforce any judgments obtained against us or some of our officers.

Tekmira, and some of its subsidiaries, are incorporated under the laws of the Province of British Columbia and the majority of Tekmira's assets are located outside the United States. While we have appointed National Registered Agents, Inc. as our agent for service of process to effect service of process within the United States upon us, it may not be possible for you to enforce against us or those persons in the United States, judgments obtained in U.S. courts based upon the civil liability provisions of the U.S. federal securities laws or other laws of the United States. In addition, there is doubt as to whether original action could be brought in Canada against us or our directors or officers based solely upon U.S. federal or state securities laws and as to the enforceability in Canadian courts of judgments of U.S. courts obtained in actions based upon the civil liability provisions of U.S. federal or state securities laws.

If we are deemed to be a "passive foreign investment company" for the current or any future taxable year, investors who are subject to United States federal taxation would likely suffer materially adverse U.S. federal income tax consequences.

We generally will be a "passive foreign investment company" under the meaning of Section 1297 of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), (a "PFIC") if (a) 75% or more of our gross income is "passive income" (generally, dividends, interest, rents, royalties, and gains from the disposition of assets producing passive income) in any taxable year, or (b) if at least 50% or more of the quarterly average value of our assets produce, or are held for the production of, passive income in any taxable year. A shareholder who is a U.S. person (as such term is defined under applicable U.S. legislation) should be aware that we believe that we were a PFIC during one or more prior taxable years. We have not yet made a determination as to whether we were a PFIC in respect of our taxable year ended December 31, 2014. If we are a PFIC for any taxable year during which a U.S. person holds our Common Shares, it would likely result in materially adverse U.S. federal income tax consequences for such U.S. person, including, but not limited to, any gain from the sale of our Common Shares would be taxed as ordinary income, as opposed to capital gain, and such gain and certain distributions on our Common Shares would be subject to an interest charge, except in certain circumstances. It may be possible for U.S. persons to fully or partially mitigate such tax consequences by making a "qualifying electing fund election," as defined in the Code (a "QEF Election"), but there is no assurance that we will provide such persons with the information that we are required to provide to them in order to assist them in making a QEF Election. In addition, U.S. persons that hold Common Shares issuable upon exercise of warrants are generally not eligible to make certain elections available under the Code that are intended to mitigate the adverse tax consequences of PFIC rules with respect to such warrant shares unless such holders also elect to make a deemed taxable sale of their warrant shares. The PFIC rules are extremely complex.

Our articles and certain Canadian laws could delay or deter a change of control.

Our preferred shares are available for issuance from time to time at the discretion of our board of directors, without shareholder approval. Our articles allow our board, without shareholder approval, to determine the special rights to be attached to our preferred shares, and such rights may be superior to those of our Common Shares.

In addition, limitations on the ability to acquire and hold our Common Shares may be imposed by the Competition Act in Canada. This legislation permits the Commissioner of Competition of Canada to review any acquisition of a significant interest in us. This legislation grants the Commissioner jurisdiction to challenge such an acquisition before the Canadian Competition Tribunal if the Commissioner believes that it would, or would be likely to, result in a substantial lessening or prevention of competition in any market in Canada. The Investment Canada Act subjects an acquisition of control of a company by a non-Canadian to government review if the value of our assets, as calculated pursuant to the legislation, exceeds a threshold amount. A reviewable acquisition may not proceed unless the relevant minister is satisfied that the investment is likely to result in a net benefit to Canada. Any of the foregoing could prevent or delay a change of control and may deprive or limit strategic opportunities for our shareholders to sell their shares.

The exercise of all or any number of outstanding stock options, the award of any additional options, bonus shares or other stock-based awards or any issuance of shares to raise funds or acquire a business may dilute your Common Shares.

We have in the past and may in the future grant to some or all of our directors, officers and employees options to purchase our Common Shares and other stock-based awards as non-cash incentives to those persons. The issuance of any equity securities could, and the issuance of any additional shares will, cause our existing shareholders to experience dilution of their ownership interests.

Any additional issuance of shares or a decision to acquire other businesses through the sale of equity securities may dilute our investors' interests, and investors may suffer dilution in their net book value per share depending on the price at which such securities are sold. Such issuance may cause a reduction in the proportionate ownership and voting power of all other shareholders. The dilution may result in a decline in the price of our Common Shares or a change in control.

We do not expect to pay dividends for the foreseeable future.

We have not paid any cash dividends to date and we do not intend to declare dividends for the foreseeable future, as we anticipate that we will reinvest future earnings, if any, in the development and growth of our business. Therefore, investors will not receive any funds unless they sell their Common Shares, and shareholders may be unable to sell their shares on favorable terms or at all. We cannot assure you of a positive return on investment or that you will not lose the entire amount of your investment in our Common Shares. Prospective investors seeking or needing dividend income or liquidity should not purchase our Common Shares.

The value of our securities, including our Common Shares, might be affected by matters not related to our operating performance and could subject us to securities litigation.

The value of our Common Shares may be reduced for a number of reasons, many of which are outside our control, including:

- general economic and political conditions in Canada, the United States and globally;
- governmental regulation of the health care and pharmaceutical industries;
- failure to achieve desired drug discovery outcomes by us or our collaborators;
- failure to obtain industry partner and other third party consents and approvals, when required;
- stock market volatility and market valuations;
- competition for, among other things, capital, drug targets and skilled personnel;
- the need to obtain required approvals from regulatory authorities;
- revenue and operating results failing to meet expectations in any particular period;
- investor perception of the health care and pharmaceutical industries;
- limited trading volume of our Common Shares;
- announcements relating to our business or the businesses of our competitors; and
- our ability or inability to raise additional funds.

The concentration of the common shares ownership with insiders will likely limit the ability of the other shareholders to influence corporate matters.

As of March 9, 2015, executive officers, directors, five percent or greater shareholders, and their respective affiliated entities of the Tekmira beneficially own, in the aggregate, approximately 44% of Tekmira's outstanding common shares. As a result, these shareholders, acting together, have significant influence over most matters that require approval by Tekmira's shareholders, including the election of directors and approval of significant corporate transactions. Corporate actions might be taken even if other shareholders oppose them. This concentration of ownership might also have the effect of delaying or preventing a corporate transaction that other shareholders may view as beneficial.

If securities analysts do not publish research or reports about the business of Tekmira, or if they publish negative evaluations, the price of Tekmira's Common Shares could decline.

The trading market for the Tekmira's Common Shares may be impacted by the availability or lack of research and reports that third-party industry or financial analysts publish about Tekmira. There are many large, publicly traded companies active in the biopharmaceutical industry, which may mean it will be less likely that Tekmira receives widespread analyst coverage. Furthermore, if one or more of the analysts who do cover Tekmira downgrade its stock, its stock price would likely decline. If Tekmira does not receive adequate coverage by reputable analysts that have an understanding of Tekmira's business and industry, it could fail to achieve visibility in the market, which in turn could cause its stock price to decline.

Risk Factors Relating to Assets Acquired as a result of the Merger with OnCore

We are required to make deferred payments in connection with OnCore's prior acquisition of Enantigen, and its failure to make these payments may adversely affect Tekmira's ability to progress certain of its drug development programs.

In connection with OnCore's acquisition of Enantigen, OnCore paid $2.0 million in cash to Enantigen's selling stockholders in October 2014 and an additional $1.0 million in cash in December 2014. We are obligated to pay an additional $2.0 million in cash by March 31, 2015. If we do not pay this amount as required, we would be required to return all shares of Enantigen to its former stockholders, which would mean that we would lose our rights to certain HBV surface antigen secretion inhibitor and capsid assembly inhibitor programs.

OnCore has licensed critical portions of its intellectual property from Blumberg, Drexel and NeuroVive, and is subject to significant obligations under those license agreements.

The rights OnCore holds under its license agreements with Blumberg, Drexel and NeuroVive are important to its business. The OnCore discovery and development platform is built, in part, around patents exclusively in licensed from these parties. For example, the elimination of cccDNA is the most critical element in our combination strategy to cure HBV, and the cccDNA formation inhibitor program is in licensed from Blumberg and Drexel.

OnCore has licenses with Blumberg and Drexel, both directly and through its acquisition of Enantigen, that grant it the exclusive (except in some cases as to know how that is not unique or specific to the licensed products or compound series, which are non-exclusive and subject to retained rights for non-commercial research use), worldwide license to make, have made, use, import, offer for sale and sell products incorporating one or more licensed compounds, which include cccDNA inhibitors, capsid assembly inhibitors, inhibitors of secretion of HBV antigens and hepatocellular carcinoma inhibitors, either for general use in humans or for use in the field of HBV research, diagnosis and treatment. OnCore's license with NeuroVive grants OnCore the exclusive, worldwide license under patents and know how controlled by NeuroVive to develop, manufacture and commercialize for the treatment of HBV, oral dosage form products, or licensed products, that incorporate sanglifehrin based cyclophilin inhibitors, including OnCore's drug candidate OCB-030. OnCore's license with Cytos grants OnCore the exclusive, worldwide, sub licensable (subject to certain restrictions with respect to licensed viral infections other than hepatitis) license, under patents and know-how controlled by Cytos, to research, develop, manufacture and commercialize, for the diagnosis, treatment or prevention of hepatitis viruses in humans, licensed products that incorporate Q beta-derived virus-like particles that are filled with TLR9, TLR7 or RIG-I agonists.

Under OnCore's agreements with Blumberg, Drexel, NeuroVive and Cytos, OnCore is subject to significant obligations, including diligence obligations with respect to development and commercialization activities, payment obligations upon achievement of certain milestones and royalties on product sales, as well as other material obligations. Under OnCore's direct agreement with Blumberg and Drexel, OnCore agreed to pay up to $3.5 million in development and regulatory milestones per licensed compound series, up to $92.5 million in sales performance milestones per licensed product, and royalties in the mid-single digits in connection with the sale of licensed products. Under each of the three license agreements that OnCore's subsidiary Enantigen has with Blumberg and Drexel, Enantigen is obligated to pay up to $500,000 in development and regulatory milestones per licensed product and royalties in the low single digits in connection with the sale of licensed products. Under OnCore's agreement with NeuroVive, OnCore agreed to pay up to $47.0 million in clinical development and regulatory milestones per indication, up to $102.5 million in sales performance milestones per licensed product and indication, and tiered royalties in the mid-single to low double digits in connection with the sale of licensed products. Under OnCore's agreement with Cytos, OnCore agreed to pay up to $67 million upon the achievement of specified development and regulatory milestones for hepatitis and each additional licensed viral infection, in each case for each of the six licensed compound series, up to $110 million upon the achievement of specified sales performance milestones, and tiered royalty payments at a royalty rate in the high-single to low double digits, based upon net sales of licensed products. If these payments become due under the terms of the agreements, OnCore may not have sufficient funds available to meet its obligations and we may be negatively affected.

If there is any conflict, dispute, disagreement or issue of non-performance between OnCore and Blumberg, Drexel, NeuroVive or Cytos regarding OnCore's rights or obligations under these license agreements, including any conflict, dispute or disagreement arising from OnCore failure to satisfy diligence or payment obligations under such agreements, Blumberg and Drexel or NeuroVive or Cytos, as applicable, may have a right to terminate the license. The loss of any of these license agreements could materially and adversely affect OnCore's ability to use intellectual property that is critical to our drug discovery and development efforts, as well as its ability to enter into future collaboration, licensing and/or marketing agreements for one or more affected drug candidates or development programs.

OnCore relies on and will incur additional expense in connection with its research collaboration with Blumberg.

In October 2014, OnCore entered into an agreement with Blumberg under which it will provide annual funding for a three year period in the amount of $1.0 million per year and which is renewable for an additional three year period at our option, for Blumberg to conduct research projects in HBV and liver cancer pursuant to a research plan to be agreed upon by the parties. In exchange, OnCore has the right to obtain an exclusive, royalty bearing, worldwide license to intellectual property generated by Blumberg in the course of the funded research and OnCore believes that Blumberg's HBV research platform will continue to be a source of potentially novel hepatitis B targets, drug candidates, assays and other HBV specific technologies. As a result, OnCore is dependent, in part, upon the success of Blumberg in performing its responsibilities under this research collaboration. Blumberg may not cooperate with OnCore or perform its obligations under the agreement. OnCore cannot control the amount and timing of Blumberg's resources that will be devoted to research and development activities related to our research collaboration. Further, development costs associated with OnCore's research projects may be difficult to anticipate and exceed our expectations. If funding is unable to continue to financially support the collaboration, if OnCore does not obtain exclusive licenses from Blumberg to the resulting intellectual property, or if OnCore fails to comply with its obligations under those license agreements, its development efforts may be materially harmed.

Some of OnCore's licensors have retained rights to develop and commercialize certain of its drug candidates to treat diseases other than HBV and, as a result, its development and commercialization efforts may be negatively affected.

OnCore's license agreements provide OnCore with the rights to develop and commercialize our drug candidates for HBV; however, some of OnCore's licensors have retained rights to develop and commercialize certain of its drug candidates to treat diseases other than HBV, and to license those rights to other third parties. For example, NeuroVive has retained rights to the development of sanglifehrin based cyclophilin inhibitors, including those having the same active ingredient as OCB-030, and Cytos has retained all rights with respect to development of the licensed products for influenza, all non-viral infections and certain viral infections other than hepatitis.

NeuroVive is currently performing preclinical studies on an intravenous formulation of one of these drug candidates with the intention of initiating clinical trials in cardiovascular disease and central nervous system conditions. Because NeuroVive's drug candidate has the same active ingredient as OCB-030, OnCore's ability to successfully develop and commercialize OCB-030 could be negatively affected by data, including any adverse events, arising from NeuroVive's clinical trials. If OnCore obtains regulatory approval for OCB-030 or its TLR9 agonist for HBV and NeuroVive or Cytos, as the case may be, obtains regulatory approval for a drug candidate that has the same active ingredient as OCB-030 or our TLR9 agonist for another indication, and if each is available outside of a combination therapy, physicians may prescribe the NeuroVive or Cytos drug, instead of OnCore's drug, to patients with HBV if, for example, the cost of the NeuroVive or Cytos drug is less than our drug. In this case, OnCore would not be receiving any payments on the account of such sales and our revenue would be adversely affected.

Item 1B. Unresolved Staff Comments

There are no unresolved staff comments at the moment.

Item 2. Properties

Our head office and principal place of business is located at 100-8900 Glenlyon Parkway, Burnaby, British Columbia, Canada, V5J 5J8. The Company leases a 51,000 square foot facility. On June 23, 2014, we signed a renewal agreement to the operating lease for its laboratory and office premises. The renewal is effective August 1, 2014 and expires July 31, 2019, but we have the option to extend the lease to 2024, 2029, and 2034. We believe that the total space available to us under our current lease will meet our needs for the foreseeable future and that additional space would be available to us on commercially reasonable terms if required.

Through our wholly owned subsidiary, OnCore, we have approximately 2,600 square feet of leased office space at 3805 Old Easton Road, Doylestown, PA 18902.

Item 3. Legal Proceedings

We are involved with various legal matters arising in the ordinary course of business. We make provisions for liabilities when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Such provisions are reviewed at least quarterly and adjusted to reflect the impact of any settlement negotiations, judicial and administrative rulings, advice of legal counsel, and other information and events pertaining to a particular case. Litigation is inherently unpredictable. Although the ultimate resolution of these various matters cannot be determined at this time, we do not believe that such matters, individually or in the aggregate, will have a material adverse effect on our consolidated results of operations, cash flows, or financial condition.

Alnylam Pharmaceuticals Inc. ("Alnylam")

On June 21, 2013, we transferred manufacturing process technology to Ascletis Pharmaceuticals (Hangzhou) Co., Ltd. ("Ascletis") to enable them to produce ALN-VSP, a product candidate licensed to them by Alnylam. We believe that under a licensing agreement with Alnylam, the technology transfer to Ascletis triggers a $5 million milestone obligation from Alnylam to Tekmira. However, Alnylam has demanded a declaration that we have not yet met our milestone obligations. We dispute Alnylam's position. To remedy this dispute, the parties have commenced arbitration proceedings, as provided for under the agreement. In addition to seeking a declaration that we have met our obligations under the agreement, we have also stated a claim for breach of contract, breach of the implied covenant of good faith and fair dealing, and fraud. The hearing date for this arbitration is currently set for the second week in May, 2015.

University of British Columbia ("UBC")

Certain early work on lipid nanoparticle delivery systems and related inventions was undertaken at the University of British Columbia (UBC). These inventions are licensed to us by UBC under a license agreement, initially entered in 1998 as amended in 2001, 2006 and 2007. We have granted sublicenses under the UBC license to Alnylam as well as to Talon. Alnylam has in turn sublicensed back to us under the licensed UBC patents for discovery, development and commercialization of RNAi products. In mid-2009, we and our subsidiary Protiva entered into a supplemental agreement with UBC, Alnylam and AlCana Technologies, Inc., in relation to a separate research collaboration to be conducted among UBC, Alnylam and AlCana to which we have license rights. The settlement agreement signed in late 2012 to resolve the litigation among Alnylam, AlCana, Tekmira and Protiva provided for the effective termination of all obligations under such supplemental agreement as between and among all litigants.

On November 10, 2014, the University of British Columbia filed a demand for arbitration against Tekmira Pharmaceuticals Corp., BCICAC File No.: DCA-1623. We received UBC's Statement of Claims on January 16, 2015. In its Statement of Claims, UBC alleges that it is entitled to $3.5 million in allegedly unpaid royalties based on publicly available information, and an unspecified amount based on non-public information. UBC also seeks interest and costs, including legal fees. We dispute UBC's allegation. No dates have been scheduled for this arbitration.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

On November 15, 2010, our common shares began to trade on the NASDAQ Global Market under the symbol "TKMR". Our common shares are also traded on the Toronto Stock Exchange in Canada under the symbol "TKM". As at March 9, 2015, there were 126 registered holders of common shares and 46,567,496 common shares issued and outstanding. The following table shows the progression in the high and low trading prices of our common shares on the NASDAQ Global Market and the Toronto Stock Exchange for the periods listed:

	NASDAQ High (US$)	NASDAQ Low (US$)	TSX High (C$)	TSX Low (C$)
Year Ended:				
December 31, 2014	$ 31.48	$ 7.65	$ 34.66	$ 8.14
December 31, 2013	$ 11.42	$ 4.18	$ 11.62	$ 4.31
Quarter Ended:				
December 31, 2014	$ 29.93	$ 12.54	$ 33.69	$ 14.37
September 30, 2014	$ 26.05	$ 8.86	$ 28.56	$ 9.55
June 30, 2014	$ 24.47	$ 10.20	$ 26.99	$ 11.08
March 31, 2014	$ 31.48	$ 7.65	$ 34.66	$ 8.14
December 31, 2013	$ 11.42	$ 6.93	$ 11.62	$ 7.16
September 30, 2013	$ 7.72	$ 4.70	$ 7.90	$ 4.96
June 30, 2013	$ 5.25	$ 4.25	$ 5.34	$ 4.35
March 31, 2013	$ 5.53	$ 4.18	$ 5.45	$ 4.31
Month Ended:				
February 28, 2015	$ 25.49	$ 17.50	$ 33.76	$ 17.05
January 31, 2015	$ 26.73	$ 14.50	$ 32.19	$ 21.90

Material Modifications to the Rights of Security Holders/Use of Proceeds

Not applicable.

Purchase of Equity Securities by the Issuer and Affiliated Purchasers

Not applicable.

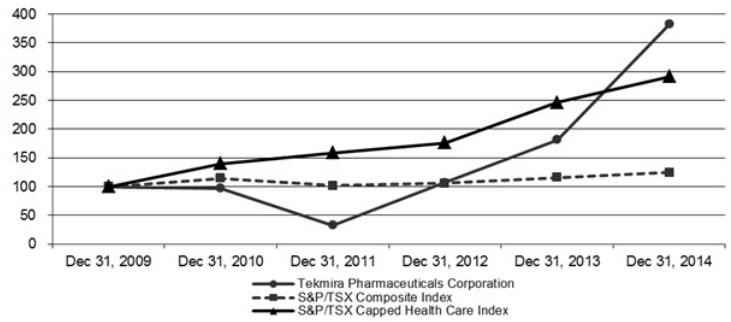
Recent Sales of Unregistered Securities

None.

Stock Performance Graph

The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that we specifically incorporate it by reference into such filing.

The following graph compares the cumulative shareholder return on an investment of C$100 in the Common Shares of the Company on the TSX from December 31, 2009, with a cumulative total shareholder return on the TSX Composite Total Return and TSX Capped Health Care Indices.



Geographic Breakdown of Shareholders

As of March 9, 2015, our shareholder register indicates that our common shares are held as follows:

Location	Number of Shares	Percentage of Total Shares	Number of Registered Shareholders of Record
Canada	15,776,736	33.9%	100
United States	14,776,536	31.7%	22
Other	16,014,224	34.4%	4
Total	46,567,496	100%	126

Our securities are recorded in registered form on the books of our transfer agent, CST Trust Company, located at 1600-1066 West Hastings Street, Vancouver, BC V6E 3X1. However, the majority of such shares are registered in the name of intermediaries such as brokerage houses and clearing houses (on behalf of their respective brokerage clients). We are permitted, upon request to our transfer agent, to obtain a list of our beneficial shareholders who do not object to their identities being disclosed to us. We are not permitted to obtain from our transfer agent a list of our shareholders who have objected to their identities being disclosed to us.

Shares registered in intermediaries were assumed to be held by residents of the same country in which the clearing house was located.

Dividends

We have not declared or paid any dividends on our common shares since the date of our incorporation. We intend to retain our earnings, if any, to finance the growth and development of our business and do not expect to pay dividends or to make any other distributions in the near future. Our board of directors will review this policy from time to time having regard to our financing requirements, financial condition and other factors considered to be relevant.

Item 6. Selected Consolidated Financial Data

The following table presents selected financial data derived from Tekmira's audited consolidated financial statements for each of the five years for the period ending December 31, 2014. You should read this information in conjunction with our financial statements for the periods presented, as well as Item 1 " *Business* " and Item 7 " *Management's Discussion and Analysis of Financial Condition and Results of Operations* " included elsewhere in this Annual Report. Historical results are not necessarily indicative of future results.

Summary Financial Information
Under U.S. GAAP (in thousands of US dollars, except per share amounts)

	Year Ended December 31,				
	2014	2013	2012	2011	2010
	$	$	$	$	$
Operating Data					
Revenue	14,953	15,465	14,105	16,812	20,745
Expenses	47,925	27,617	27,050	27,505	32,900
Loss from operations	(32,972)	(12,152)	(12,945)	(10,694)	(12,155)
Net income (loss)	(38,837)	(14,063)	29,611	(10,083)	(12,058)
Weighted average number of common shares—basic (1)	21,603	15,303	13,728	11,319	10,333
Weighted average number of common shares—diluted (1)	21,603	15,303	14,321	11,319	10,333
Income (loss) per common share—basic	(1.80)	(0.92)	2.16	(0.89)	(1.17)
Income (loss) per common share—diluted	(1.80)	(0.92)	2.07	(0.89)	(1.17)
Balance Sheet Data					
Total current assets	116,418	70,343	51,243	11,594	18,006
Total assets	118,178	71,716	52,595	13,758	21,136
Total liabilities	30,143	12,522	11,676	8,531	10,345
Share capital	316,212	242,045	206,572	200,965	196,393
Total stockholders' equity	88,035	59,194	40,919	5,227	10,791
Number of shares outstanding (1)	22,438	19,049	14,305	12,149	10,339

Notes:

(1) On November 4, 2010, Tekmira completed a consolidation of its common shares whereby five old common shares of Tekmira were exchanged for one new common share of Tekmira. Except as otherwise indicated, all references to common shares, common shares outstanding, average number of common shares outstanding, per share amounts and options in this document have been restated to reflect the common shares consolidation on a retroactive basis.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

OVERVIEW

Following our recent business combination with OnCore Biopharma Inc. ("OnCore") we intend to focus our efforts on discovering, developing and commercializing a cure for patients suffering from chronic HBV infection, a disease of the liver caused by hepatitis B. Our strategy incorporates our heritage and expertise in RNAi combined with the newly acquired assets and expertise through the OnCore merger.

We believe that, as a result of the merger, Tekmira will be well positioned to capitalize on the HBV global market opportunity. Our current HBV pipeline consists of 9 drugs and drug candidates, with eight unique mechanisms of action. Our unique strategy is to target the three pillars we believe are necessary to deliver an HBV cure, including: (i) suppressing HBV viral replication, (ii) restoring host response by suppressing HBsAg or activating/stimulating the host immune system directed at HBV and (iii) eliminating covalently closed circular DNA (cccDNA), the reservoir of viral genomic material. We believe that our chances for success in HBV are increased, and risk is mitigated, by having a portfolio of assets targeting these three strategies. Most importantly, we believe combination therapies are the key to HBV treatment and a potential cure. We believe that clinical development can be accelerated when multiple components of a combination therapy regimen are controlled by the same company and therefore we have retained exclusive worldwide development and commercialization rights to all of our drug candidates and programs in HBV.

Tekmira is a biopharmaceutical company that since inception has focused on developing and advancing novel RNA interference therapeutics, as well as pursuing partnering opportunities for its leading lipid nanoparticle (LNP) delivery technology. RNAi has the potential to generate a broad new class of therapeutics that take advantage of the body's own natural processes to silence genes – or more specifically to eliminate specific gene-products from the cell. With this ability to eliminate disease-causing proteins from cells, RNAi products represent opportunities for therapeutic interventions that have not been achievable with conventional drugs.

Delivery technology is crucial in order to protect RNAi drugs in the bloodstream following administration, allow efficient delivery to the target cells, and facilitate cellular uptake and release into the cytoplasm of the cell. By encapsulating the RNAi trigger molecules in lipid particles, Tekmira's propriety LNP technology enables efficient delivery and uptake into target cells. Tekmira's LNP technology represents the most widely adopted delivery technology in RNAi. To date, it has enabled eight clinical trials and been administered to well over 250 patients. Furthermore, recent results demonstrate that multi-dosing with LNP has been well-tolerated with treatments out to one year.

LNP can also enable a wide variety of nucleic acid triggers, including messenger RNA. As such, we continue to seek new product development and partnering opportunities based on our industry-leading delivery expertise.

Our Product Candidates

As a result of our merger with OnCore our pipeline of assets has expanded beyond therapeutics being developed with RNAi technology. In HBV, we have what we believe is an industry-leading pipeline focused on curing HBV. Our belief is that to achieve an HBV cure, a combination of products that affect the main drivers of HBV need to be utilized. Specifically, this means that to be successful, we believe we need to have products that address HBV persistence — in antiviral replication, immune reactivation and the presence of cccDNA.

Once multiple compounds within the portfolio with sufficient anti HBV activity have been identified, we intend, subject to discussions with regulatory authorities, to conduct a rolling Phase II clinical program. These studies will likely evaluate combinations of two or more drug candidates in small cohorts of patients with chronic HBV infection to identify active combinations and those that do not have sufficient antiviral activity. We also plan to evaluate different treatment durations to determine the optimal duration for a finite duration therapy. We expect to use these results to adaptively design additional treatment regimens for the next cohorts. We plan to continue this iterative process until we select combination therapy regimens and treatment durations to conduct Phase III clinical trials intended to ultimately support regulatory filings for marketing approval.

We intend to continue to expand our HBV pipeline through internal development, acquisitions and in-licenses. We believe that a major engine for internal innovation is the collaboration entered into by OnCore, which is now a wholly owned subsidiary on Tekmira, with Blumberg, one of the leading non-profit research institutes in the world focused on HBV. We believe that this collaboration will provide us with access to cutting-edge research in new target identification, assay development, mechanism of action studies and lead-finding efforts focused on hepatitis B virus. This relationship also provides us with access to research that we believe is equal to, or surpasses that of other biotechnology or pharmaceutical companies, and can add value to our current and future R&D efforts in HBV.

Our RNAi product pipeline is focused on anti-virals, oncology and metabolic product platforms, where there is a significant medical need and commercial opportunity. Our intention is to advance our RNAi product pipeline either ourselves or with partners, with a focus on maximizing the value of these assets.

TKM-HBV

Hepatitis B virus (HBV) causes the most common serious liver infection in the world. The World Health Organization (WHO) estimates that 350 million people worldwide are chronically infected, and other estimates suggest this could include up to 1.4 million people in the United States. Individuals chronically infected with HBV are at an increased risk of developing significant liver disease, including cirrhosis, or permanent scarring of the liver, as well as liver failure and hepatocellular carcinoma (HCC) or liver cancer. According to the Hepatitis B Foundation, HBV is the cause of up to 80% of liver cancers. Individuals with liver cancer typically have a five-year survival rate of only 15%. The WHO estimates that more than 780,000 people die every year due to the consequences of hepatitis B.

Our extensive experience in antiviral drug development has been applied to our TKM-HBV program to develop an RNAi therapeutic for chronic hepatitis B infection. Small molecule nucleotide therapy has been the standard of care for chronic HBV infected patients. However, many of these patients continue to express a viral protein called HBV surface antigen (HBsAg). This protein causes inflammation in the liver leading to cirrhosis and, in some cases, HCC and death.

TKM-HBV is designed to address an unmet medical need and eliminate HBsAg expression in patients chronically infected with HBV. Reducing HBsAg is thought to be a key prerequisite to enable a patient's immune system to raise an adequate antibody response against the virus. The ability of TKM-HBV to inhibit numerous viral elements in addition to HBsAg increases the likelihood of successfully controlling the viral infection.

TKM-HBV is being developed as a multi-component RNAi therapeutic that simultaneously targets three sites on the HBV genome. Targeting three distinct and highly conserved sites on the HBV genome is intended to facilitate potent knockdown of all viral mRNA transcripts and viral antigens across a broad range of HBV genotypes and reduce the risk of developing antiviral resistance. The goal is for TKM-HBV to be administered without prophylactic steroid treatment.

We presented results from our preclinical studies at the 10th Annual Meeting of the Oligonucleotide Therapeutics Society Meeting held in San Diego, California, on October 15, 2014. Among the results reported is the potent and rapid reduction in HBsAg demonstrated by TKM-HBV in several well-validated models. In these models, TKM-HBV treatment resulted in reductions in both intrahepatic and serum HBsAg, as well as reductions in HBV DNA, covalently closed circular DNA (cccDNA), HBeAg and HBcAg. A rapid 1 log reduction in serum HBsAg was achieved with a single 1 mg/kg dose of TKM-HBV in the humanized mouse model, which closely mimics chronic human hepatitis B infection. 1-2 log viral reductions from similar single-dose LNP treatments in two other true-infection animal models were also demonstrated.

Preclinical studies conducted on infected primary human hepatocytes showed that TKM-HBV had robust and consistent activity against different viral strains representing the major clinical genotypes A, B, C and D. Our data shows that inclusion of three RNAi triggers results in a more broadly effective knockdown of hepatitis B viral elements than a single trigger alone. The mode of action of TKM-HBV complements standard of care nucleoside/nucleotide (NUC) therapy, and lack of drug antagonism has been demonstrated with entecavir, lamivudine and tenofovir on infected primary human hepatocytes, making combination therapy a viable option.

Our data supports the utility of TKM-HBV as a potential new therapeutic option for treating patients with chronic HBV infection. In early 2015, we advanced two TKM-HBV product candidates into a Phase I trial. Both product candidates employ the same unique combination of three RNAi trigger molecules. However, they differ in their LNP composition. One formulation employs a third generation LNP, and the other employs a new, fourth generation LNP, which incorporates novel lipid chemistry and demonstrates improved potency. The multi-component RNAi therapeutic is expected to result in broad and effective inhibition of HBV.

The TKM-HBV Phase I clinical trial is a randomized, single-blind, placebo-controlled study, involving single ascending doses of TKM-HBV. The study will assess the safety, tolerability and pharmacokinetics of intravenous administration of two formulations of TKM-HBV in healthy adult subjects. For each formulation, there are five planned cohorts for a total of 20 subjects (40 in total for both formulations). Four subjects will be enrolled per cohort with three subjects receiving TKM-HBV, and one receiving placebo. We expect the results from the Phase I clinical trial in healthy human volunteers to determine which product formulation will advance into chronically infected patients in a multi-dosing trial in the second half of 2015.

Newly Acquired HBV Candidates as a result of our merger with OnCore

Following Tekmira's recent merger with OnCore our product development pipeline will now focus on discovery, acquisition or in-licensing and developing drug candidates that attack multiple targets of the HBV lifecycle, including the aggressive suppression of HBV replication and the formation inhibition and elimination of cccDNA. Although the ultimate curative regimens for HBV are currently unknown, we have assembled a robust portfolio of drug development programs targeting hepatitis B, which we plan to evaluate to determine the best potential combination approaches for patients. These assets include the following:

Cyclophilin Inhibitor — OCB-030

Cyclophilins are proteins that have been shown to play a role in several biological processes, including viral infection. By inhibiting cyclophilin, we believe the ability of HBV to replicate can be impaired and the host immune response toward HBV may be enhanced. We have licensed from NeuroVive Pharmaceutical AB, or NeuroVive, the exclusive rights to develop and commercialize cyclophilin inhibitor drug candidates, including OCB-030, for the treatment of hepatitis B. We are engaged in studies which we expect to be completed in order to file an IND, or equivalent, by year end 2015.

TLR9 Agonist (CYT-003)

Pharmaceutical activation of TLRs is a novel and attractive approach for the treatment of chronic HBV because agonism of these receptors triggers innate immune responses and also stimulates adaptive immunity. It is hoped that immune stimulation by TLR agonists can overcome the multiple immunologic blocks that allows chronic HBV infection, including direct activation of the host's innate antiviral response, hence overcoming the functional weakness in HBV-specific immune cell responses.

Licensed from Cytos, CYT003 is a biological carrier which is filled G10 a toll-like receptor-9 (TLR-9) agonist. CYT-003 has been shown to directly activate B cells and stimulates human pDC to secrete Interferon alpha. CYT-003 also activates other antigen presenting cells indirectly and promotes the development of TH1 type cytokine response. This is thought to be potentially beneficial in promoting anti-HBV T cell immunity. CYT003 has previously been utilised in human trials in other indications and therefore could move quickly into the clinic in HBV infected patients. We anticipate initiating preclinical studies to demonstrate proof of concept 1H 2015. If the preclinical studies show utility in HBV, we could likely progress straight into patients given the existing safety database and the open INDs.

Capsid Assembly Inhibitors

We are developing two capsid assembly inhibitors as oral therapeutics for the treatment of chronic HBV infection. By inhibiting assembly of the viral capsid, the ability of hepatitis B virus to replicate is impaired, which subsequently reduces the amount of new virus produced, and may have an effect on cccDNA. We acquired exclusive, worldwide rights to these drug candidates through an in-license from Blumberg and Drexel University, or Drexel, and through OnCore's recent acquisition of Enantigen Therapeutics, Inc., or Enantigen. We expect to file an IND with the FDA, or an equivalent filing with foreign regulatory authorities, and initiate Phase 1 studies with one of these compounds in 2016.

Surface Antigen Secretion Inhibitors

We are developing multiple small molecule orally bioavailable HBV surface antigen secretion inhibitors. By inhibiting the secretion of HBV surface antigen from infected cells, we expect that the immune response of patients treated with this therapy can reengage and thereby mount a more credible response to a hepatitis B virus infection. We acquired these drug candidates through OnCore's recent acquisition of Enantigen. We expect to file an IND, or its equivalent in another territory, for a lead compound in 2016.

STING Agonists

We are developing STING (stimulator of interferon genes) agonists. By activating interferon genes, we anticipate that the body can produce additional interferon alpha and beta, which have antiviral properties. Our development program, which is currently in the discovery research stage, is based on proof of concept data in mice generated by Blumberg which showed that STING agonists can elicit an antiviral response and inhibit HBV replication in mouse liver cells. In collaboration with Blumberg, our plan is to identify potent, orally active small molecule human STING agonists that possess the desired characteristics to progress into human clinical studies.

cccDNA Formation Inhibitors

We are developing multiple series of cccDNA formation inhibitors. The inhibition of cccDNA formation would reduce the amount of cccDNA in the infected liver cell and could ultimately eliminate the reservoir of HBV genomic material required for continued viral replication. We acquired the exclusive, worldwide rights to this program through an in-license from Blumberg. This program is currently in early optimization and we anticipate filing an IND with the FDA or its equivalent in another territory in 2017.

cccDNA Epigenetic Modifiers

In addition to cccDNA formation inhibitors, we are developing cccDNA epigenetic modifiers. By controlling cccDNA transcription, we anticipate that we may be able to inhibit the formation of new virus and subviral particles from cccDNA. This development program, which is currently in the discovery research stage, is based on proof of concept data generated by Blumberg using known inhibitors of enzymes involved in DNA information processing.

Non-HBV Assets Clinical Programs TKM-PLK1, TKM-Ebola, TKM-Ebola-Guinea *(LNP Enabled)*

We believe there is significant value in our non-HBV assets and remain committed to maximizing this value. We intend to continue our clinical programs to the appropriate point in support of this objective. We also remain interested in advancing our ongoing metabolic and rare disease preclinical programs in an appropriate way toward this value maximization objective and in continuing to leverage our knowledge and expertise in LNP technology.

TKM-PLK1

Our oncology product platform, TKM-PLK1, targets polo-like kinase 1 (PLK1), a protein involved in tumor cell proliferation and a validated oncology target. Inhibition of PLK1 expression prevents the tumor cell from completing cell division, resulting in cell cycle arrest and death of the cancer cell. Evidence that patients with elevated levels of PLK1 in their tumors exhibit poorer prognosis and survival rates has been documented in the medical literature. TKM-PLK1 is being evaluated in oncology indications in which there are limited or ineffective therapies available: Gastrointestinal Neuroendocrine Tumors (GI-NET), Adrenocortical Carcinoma (ACC) and Hepatocellular Carcinoma (HCC).

GI-NET and ACC

GI-NET is the gastrointestinal subset of neuroendocrine tumors. According to a paper by Yao et al. (2008), a historical analysis of the US SEER database reveals the incidence of neuroendocrine tumors has increased faster in the last few decades than any other neoplasm, with a growth rate of greater than 3% expected to continue in the near term. The prevalence of GI-NET in the US is estimated to be approximately 55,000 individuals. Prognosis for advanced or metastatic GI-NET, the target population for TKM-PLK1, is poor with 25-54% of patients surviving less than one year.

ACC is an ultra-rare form of cancer that develops in the adrenal gland, with data from the US National Cancer Institute estimating 500 patients in the US. Survival prognosis for these patients is poor. A large percentage of patients are not good surgical candidates and there is a lack of effective systemic therapies.

We presented updated Phase I TKM-PLK1 data at the 6th Annual NET Conference hosted by the North American Neuroendocrine Tumor Society (NA-NETS) in Charleston, South Carolina on October 4, 2013. This data set included a total of 36 patients in a population of advanced cancer patients with solid tumors. Doses ranged from 0.15 mg/kg to 0.90 mg/kg during the dose escalation portion of the trial, with the maximum tolerated dose (MTD) of 0.75 mg/kg. Serious adverse events (SAEs) were experienced by four subjects in this heavily pre-treated, advanced cancer patient population, with three of four subjects continuing on study. Forty percent (6 out of 15) of patients evaluable for response, treated at a dose equal to or greater than 0.6 mg/kg, showed clinical benefit. Three out of the four ACC patients (75%) treated with TKM-PLK1 achieved stable disease, including one patient who saw a 19.3% reduction in target tumor size after two cycles of treatment and is still on study receiving TKM-PLK1. Of the two GI-NET patients enrolled, both experienced clinical benefit: one patient had a partial response based on Response Evaluation Criteria in Solid Tumors (RECIST) criteria, and the other GI-NET patient achieved stable disease and showed a greater than 50% reduction in Chromogranin-A (CgA) levels, a key biomarker used to predict clinical outcome and tumor response.

Based on encouraging results from the dose escalation portion and expansion cohort from our Phase I TKM-PLK1 clinical trial, we expanded into a Phase I/II clinical trial with TKM-PLK1, which is specifically enrolling patients within two therapeutic indications: advanced GI-NET or ACC. This multi-center, single arm, open label study is designed to measure efficacy using RECIST criteria for GI-NET patients and ACC patients as well as evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1. TKM-PLK1 is administered weekly with each four-week cycle consisting of three once-weekly doses followed by a rest week. In the fall of 2014, we achieved our enrolment target of patients with advanced GI-NET or ACC tumors. These patients will continue treatment and be followed to determine if TKM-PLK1 produces a meaningful clinical benefit.

We provided an update on this Phase I/II clinical study in December 2014. To date, 55 patients, in both the Phase I and Phase I/II studies have been treated at doses of $\geq$ 0.6 mg/kg, which is considered to be in the efficacious dose range based on preclinical studies. Of these, 31 patients comprise the target population of GI-NET or ACC patients. Currently, nine patients (GI-NET and ACC) remain actively on treatment and data collection is ongoing.

While we are still awaiting maturation of data, we continue to see evidence of anti-tumor activity in some treated subjects, including one ACC patient with an almost complete resolution of their disease. We expect to report final data from these studies in the second half of 2015.

HCC

HCC is one of the most common cancers and one of the most deadly, with over 650,000 deaths each year worldwide according to the Globocan 2012 database. US incidence is estimated at 27,000 individuals with annual growth rates greater than 2%. HCC is an aggressive, hard-to-treat disease with one-year survival rates of less than 50% and five-year rates as low as 4% (National Cancer Institute). To date, Nexavar (sorafenib) is the only agent approved to treat HCC with an improvement in overall survival of just two to three months.

In May 2014, we initiated another Phase I/II clinical trial with TKM-PLK1, enrolling patients with advanced HCC. Patient dosing has commenced and we have completed the first treatment in all of our subjects for the first HCC cohort. This Phase I/II clinical trial is a multi-center, single arm, open label dose escalation study designed to evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1 as well as determine the maximum tolerated dose in patients with advanced HCC. It will also include a preliminary assessment of the anti-tumor activity of TKM-PLK1 in this patient population. It is expected that approximately 38 patients with advanced HCC tumors will be enrolled in this Phase I/II clinical trial.

TKM-Ebola

TKM-Ebola, an anti-Ebola RNAi therapeutic, is being developed under a $140 million contract, signed in July 2010, with the U.S. Department of Defense (DoD) Joint Project Manager Medical Countermeasure Systems BioDefense Therapeutics (JPM-MCS-BDTX). Preclinical studies published in the medical journal *The Lancet* in 2010 demonstrated that when RNAi triggers targeting the Ebola virus and delivered by our LNP technology were used to treat previously infected non-human primates, the result was 100 percent protection from an otherwise lethal dose of Zaire Ebola virus (Geisbert et al., *The Lancet,* Vol. 375, May 29, 2010).

In May 2013, our collaboration with the JPM-MCS-BDTX was modified and expanded to include advances in LNP formulation technology. The contract modification increased the first stage of funding from $34.7 million to $41.7 million. In April 2014, we signed a second contract modification to increase this funding by $2.1 million to a total of $43.8 million to compensate Tekmira for unrecovered costs that occurred in 2012 and to provide additional funding should it be required.

TKM-Ebola is being developed under specific U.S. Food and Drug Administration (FDA) regulatory guidelines called the "Animal Rule." This allows, in circumstances where it is unethical or not feasible to conduct human efficacy studies, marketing approval to be granted based on adequate and well-controlled animal studies when the results of those studies establish that the drug is reasonably likely to produce clinical benefit in humans. Demonstration of the product's safety in humans is still required.

We were granted Fast Track designation from the FDA for the development of TKM-Ebola in March 2014. The FDA's Fast Track is a process designed to facilitate the development and expedite the review of drugs in order to get important new therapies to the patient earlier.

In May 2014, we successfully completed the single ascending dose portion of the TKM-Ebola Phase I clinical trial in healthy human volunteers. Results demonstrated that administration of the TKM-Ebola therapeutic, in the absence of any steroid containing pre-medication, was well-tolerated at a dose level of 0.3 mg/kg, determined to be the maximum tolerated dose.

In July 2014, we received notice from the FDA placing the TKM-Ebola Investigational New Drug application (IND) on clinical hold until additional information is supplied, and the multiple ascending dose portion of the trial protocol is modified to ensure the safety of healthy volunteers. The clinical hold was subsequently modified to a partial clinical hold to permit the administration of TKM-Ebola to patients with a suspected or confirmed Ebola virus infection. Under the FDA's expanded access program, several patients with a confirmed or suspected Ebola virus infection were treated with TKM-Ebola. Data is being collected and will be provided to the FDA under our IND. Health Canada also established a similar framework for the potential use of TKM-Ebola in the same group of patients.

With the emergency use of our TKM-Ebola product under expanded access protocols and recent developments, such as the production of a new product candidate for clinical trials in West Africa, the clinical development pathways for our Ebola products are evolving. We may not be able to resolve the partial clinical hold of the healthy volunteer, multiple ascending dose portion of our Phase 1 trial of TKM-Ebola.

In December 2014, the US Congress amended the Rare and Tropical Disease list to include Ebola as a candidate for a potential Accelerated Review Voucher.

TKM-Ebola-Guinea, an Anti-Ebola RNAi Therapeutic Targeting Ebola-Guinea Strain of Ebola Virus

In September 2014, we joined an international consortium led by the International Severe Acute Respiratory and Emerging Infection Consortium (ISARIC) at the University of Oxford, UK, to potentially provide an RNAi based investigational therapeutic for expedited clinical studies in West Africa.

In October 2014, the genomic sequence of the Ebola-Guinea strain, which is the virus responsible for the recent outbreak in West Africa, was determined from several viral isolates and published in the New England Journal of Medicine (Baize S., et al. Emergence of Zaire Ebola Virus Disease in Guinea; *New England Journal of Medicine*, October 9, 2014 Vol. 371 No. 15). We rapidly developed a modified RNAi therapeutic to specifically target Ebola-Guinea. The new product, TKM-Ebola-Guinea, is designed to match the genomic sequence exactly, with two RNAi molecule triggers. Results of preclinical studies with TKM-Ebola-Guinea demonstrated efficacy comparable to those obtained with TKM-Ebola, which demonstrated up to 100% protection from an otherwise lethal dose of the virus.

In December 2014, we entered into a Manufacturing and Clinical Trial Agreement with the University of Oxford to provide the new TKM-Ebola-Guinea therapeutic product for clinical studies in West Africa. ISARIC can conduct clinical studies of TKM-Ebola-Guinea in Ebola virus infected patients, with funding provided by the Wellcome Trust. GMP manufacture of TKM-Ebola-Guinea is now complete and 100 treatment courses are available for the study. A Phase II single arm trial called RAPIDE (Rapid Assessment of Potential Interventions & Drugs for Ebola), was initiated in March 2015 in Sierra Leone. The study is open-label with a concurrent observational study in Ebola, and results are expected in the second half of 2015.

The U.S. Department of Defense JPM-MCS-BDTX has also exercised an option, valued at $7.0 million, in our current contract to manufacture TKM-Ebola-Guinea. We have been awarded the option for scale-up and GMP manufacture of the product for approximately 500 treatment courses.

Non-HBV Preclinical Candidates *(LNP enabled)*

We are currently evaluating several additional preclinical candidates with potential in diverse therapeutic areas. Given the extremely high efficiency of delivery for third and fourth generation liver-centric LNP formulations, we are focused on rare diseases where the molecular target is found in the liver, early clinical proof-of-concept can be achieved and development opportunities may be accelerated. Our research team intends to continue to generate preclinical data to support the advancement of the most promising of these targets.

TKM-Marburg

Like Ebola, Marburg is a member of the filovirus family of hemorrhagic fever viruses. Natural outbreaks with the Marburg-Angola strain have resulted in mortality in approximately 90% of infected individuals. There are currently no approved therapeutics available for the treatment of Marburg infection.

In 2010, along with the University of Texas Medical Branch (UTMB), we were awarded a National Institutes of Health (NIH) grant to support research to develop RNAi therapeutics to treat Ebola and Marburg hemorrhagic fever viral infections. In November 2013, we announced data showing 100% survival in non-human primates infected with the Angola strain of the Marburg virus in two separate studies. These results build upon a study published earlier in the Journal of Infectious Disease showing 100% protection in guinea pig models of infection with Angola, Ci67 and Ravn strains of the Marburg virus using a broad spectrum RNAi therapeutic enabled by Tekmira's LNP.

In February 2014, along with UTMB, and other collaborators, we were awarded additional funding from the NIH in support of this research. Data was published demonstrating complete protection of non-human primates against lethal Marburg-Angola strain, (*Science Translational Medicine*. Thi EP., et al. Marburg virus infection in nonhuman primates: Therapeutic treatment by lipid-encapsulated siRNA. 2014 Aug 20;6 (250))

TKM-HTG

Our metabolic product platform, TKM-HTG, aims to achieve rapid and sustained reductions of triglycerides to address the limitations of existing Hypertriglyceridemia (HTG) treatments. Hypertriglyceridemia is a type of dyslipidemia where there are high blood levels of triglycerides. Patients with severe HTG, (classified as triglyceride levels greater than 1000 mg/dL) are at risk of acute pancreatitis as well as the risk of cardiovascular disease. Approximately one million adults in the US and 18 million worldwide suffer from severe HTG. (NHANES 2003-2004 data).

Another patient group affected by HTG are those with Familial Chylomicronemia Syndrome (FCS), which is a very rare hereditary condition affecting an estimated 1:1,000,000 people (www.fcs.raredr.com). Additionally, 35% of patients with Type 2 Diabetes (T2D) suffer from mixed hyperlipidemia which is a combination of elevated cholesterol and high triglycerides. With underlying T2D, these patients are at considerable risk from cardiovascular disease.

TKM-HTG is being developed as a multi-component RNAi therapeutic that simultaneously targets a combination of genes expressed in the liver, which are known to play a significant role in triglyceride metabolism. High triglyceride levels are medically linked to increased risk of cardiovascular disease, fatty liver disease, insulin resistance and pancreatitis.

We anticipate filing an investigational new drug application, or equivalent document, in the second half of 2015.

TKM-ALDH

TKM-ALDH is designed to knockdown or silence aldehyde dehydrogenase (ALDH) to induce long term acute sensitivity to ethanol, for use in severe alcohol use disorder. Aldehyde dehydrogenase is a key enzyme in ethanol metabolism. Inhibition of ALDH activity, through the silencing of ALDH results in the build-up of acetaldehyde leading to adverse physiological effects. Human proof of concept for ALDH inhibition already exists in the form of the approved drug disulfiram. However, disulfiram's efficacy is compromised by poor compliance because it has to be taken daily. We believe TKM-ALDH will induce prolonged ethanol sensitivity that will enable it to overcome the compliance limitations associated with daily dosing. We are exploring partnering or external funding opportunities to maximize the value of this asset.

Ongoing Advancements in LNP Technology

We plan to continue to develop our proprietary LNP delivery technology and receive clinical validation from LNP-based products currently in clinical trials. The most advanced LNP-enabled therapeutic, which is being developed by Alnylam Pharmaceuticals, Inc., has entered a Phase III clinical trial. We believe our LNP technology can remain an important cornerstone of our business development activities moving forward. We recently announced the latest (fourth) generation of the platform which comprises a rational re-design of the lipid architecture, as well as formulation and process advances. These attributes can be utilized in programs entering the clinic in 2015 and are expected to yield significant increases in potency and therapeutic index.

Because LNP can enable a wide variety of nucleic acid triggers, including messenger RNA (mRNA), we continue to see new product development and partnering opportunities based on what we believe is our industry-leading delivery expertise. In February 2014, we presented new preclinical data at the AsiaTIDES scientific symposium in Tokyo, Japan demonstrating that mRNA can be effectively delivered to target proteins expressed.

Technology, Product Development and Licensing Agreements

In the field of RNAi therapeutics, we have licensed our LNP delivery technology to Alnylam and Merck & Co., Inc. Alnylam has provided royalty bearing access of our LNP delivery technology to some of its partners. We also have a licensing and collaboration agreement with Dicerna Pharmaceuticals, Inc. In addition, we have ongoing research relationships with Monsanto, the United States National Cancer Institute, the US Department of Defense's BioDefense Therapeutics program and other undisclosed pharmaceutical and biotechnology companies. Outside the field of RNAi, we have a legacy licensing agreement with Spectrum Pharmaceuticals, Inc.

We have rights under the RNAi intellectual property of Alnylam to develop 13 RNAi therapeutic products. In addition, we have a broad non-exclusive license to use Unlocked Nucleobase Analogs (UNAs) from Arcturus Therapeutics, Inc. for the development of RNAi therapeutic products directed to any target in any therapeutic indication.

Strategic Alliances

Alnylam Pharmaceuticals, Inc. ("Alnylam")

Alnylam has a license to use our Intellectual Property (IP) to develop and commercialize products and may only grant access to our LNP technology to its partners if it is part of a product sublicense. Alnylam's license rights are limited to patents that we filed, or that claim priority to a patent that was filed, before April 15, 2010. Alnylam does not have rights to our patents filed after April 15, 2010 unless they claim priority to a patent filed before that date. Alnylam will pay us low single digit royalties as Alnylam's LNP-enabled products are commercialized. Alnylam currently has three LNP-based products in clinical development: ALN-TTR02 (patisiran), ALN-VSP, and ALN-PCS02.

In November 2013, Alnylam presented positive results from its Phase II clinical trial with patisiran (ALN-TTR02), an RNAi therapeutic targeting transthyretin (TTR) for the treatment of TTR-mediated amyloidosis (ATTR), which is enabled by our LNP technology. Alnylam also announced the initiation of the APOLLO Phase III trial of patisiran, with the study now open for enrolment to evaluate efficacy and safety of patisiran in ATTR patients with Familial Amyloidotic Polyneuropathy (FAP).

In December 2013, we received a $5 million milestone from Alnylam, triggered by the initiation of the APOLLO Phase III trial of patisiran. We have entered an arbitration proceeding with Alnylam, as provided for under our licensing agreement, to resolve a matter related to a disputed $5 million milestone payment to Tekmira by Alnylam for its ALN-VSP product. We have not recorded any revenue in respect of this milestone.

In April 2014, Alnylam presented positive new data from its Phase II clinical trial with patisiran. These results provide support for Alnylam's Phase III APOLLO trial in which patisiran is being evaluated for its potential efficacy and safety in ATTR patients with FAP. Alnylam has disclosed that it continues to enrol patients in its APOLLO Phase III trial, with over 20 sites in nine countries, which are now open and active. The Phase III trial is intended to demonstrate the efficacy and safety of patisiran in support of marketing authorization in countries around the world.

In October 2014, Alnylam reported positive clinical data for the ongoing patisiran Phase II Open Label Extension (OLE) study in patients with FAP, which is also enabled by Tekmira's LNP technology. The results demonstrated sustained knockdown of serum TTR of up to 90% and a favorable tolerability profile out to one year of treatment.

The patisiran program represents the most clinically advanced application of Tekmira's proprietary LNP delivery technology. Furthermore, Alnylam's results demonstrate that multi-dosing with Tekmira's LNP has been well-tolerated with treatments out to one year.

Our licensing agreement with Alnylam grants us IP rights for the development and commercialization of RNAi therapeutics for specified targets. In consideration for these three exclusive and 10 non-exclusive licenses, we have agreed to pay single-digit royalties to Alnylam on product sales, with milestone obligations of up to $8.5 million on the non-exclusive licenses and no milestone obligations on the three exclusive licenses.

Acuitas Therapeutics Inc. ("Acuitas")

Consistent with the terms of the settlement agreement signed in November 2012, we finalized and entered a cross-license agreement with Acuitas (formerly AlCana Technologies, Inc.) in December 2013. The terms of the cross-license agreement provide Acuitas with access to certain of Tekmira's earlier IP generated prior to April 2010 and provide us with certain access to Acuitas' technology and licenses in the RNAi field, along with a percentage of each milestone and royalty payment with respect to certain products. Acuitas has agreed that it will not compete in the RNAi field for a period of five years.

Spectrum Pharmaceuticals, Inc. ("Spectrum")

In September 2013, we announced that our licensee, Spectrum, had launched Marqibo® through its existing hematology sales force in the United States. Since then commercial sales have occurred. We are entitled to mid-single digit royalty payments based on Marqibo®'s commercial sales. Marqibo, which is a novel sphingomyelin/cholesterol liposome-encapsulated formulation of the FDA-approved anticancer drug vincristine, was originally developed by Tekmira. We out-licensed the product to Talon Therapeutics in 2006 and in July 2013, Talon was acquired by Spectrum. Marqibo's approved indication is for the treatment of adult patients with Philadelphia chromosome-negative acute lymphoblastic leukemia (Ph-ALL) in second or greater relapse or whose disease has progressed following two or more lines of anti-leukemia therapy. Spectrum has ongoing trials evaluating Marqibo in three additional indications, which are: first line use in patients with Ph-ALL, Pediatric ALL and Non-Hodgkin's lymphoma.

Monsanto Company ("Monsanto")

In January 2014, we signed an Option Agreement and a Service Agreement with Monsanto, pursuant to which Monsanto may obtain a license to use our proprietary delivery technology. The transaction supports the application of our proprietary delivery technology and related IP for use in agriculture. The potential value of the transaction could reach $86.2 million following the successful completion of milestones. In January 2014, we received $14.5 million of the $17.5 million in near term payments. We received additional payments of $1.5 M each in June 2014 and October 2014 following achievement of specific program objectives.

Marina Biotech, Inc. ("Marina") / Arcturus Therapeutics, Inc. ("Arcturus")

In November 2012, we disclosed that we had obtained a worldwide, non-exclusive license to a novel RNAi trigger technology called Unlocked Nucleobase Analog (UNA) from Marinaa for the development of RNAi therapeutics. UNAs can be incorporated into RNAi drugs and have the potential to improve them by increasing their stability and reducing off-target effects. In August 2013, Marina assigned its UNA technology to Arcturus and the UNA license agreement between Tekmira and Marina was assigned to Arcturus. The terms of the license are otherwise unchanged.

To date, we have paid Marina $0.5 million in license fees and there are milestones of up to $3.2 million plus royalties for each product that we develop using UNA technology licensed from Marina. We announced on January 21, 2015, that we had initiated a Phase I clinical trial with TKM-HBV. As TKM-HBV utilizes UNA technology in-licensed from Arcturus, the initiation of the trial triggered a single milestone payment of $250,000 payable by us to Arcturus.

Merck & Co., Inc. ("Merck") and Alnylam license agreement

As a result of the business collaboration with Protiva in 2008, we acquired a non-exclusive royalty-bearing world-wide license agreement with Merck. Under the license, Merck will pay up to $17 million in milestones for each product they develop covered by Protiva's IP, except for the first product for which Merck will pay up to $15 million in milestones, and will pay royalties on product sales. Merck's license rights are limited to patents that we filed, or that claim priority to a patent that was filed, before October 9, 2008. Merck does not have rights to our patents filed after October 9, 2008 unless they claim priority to a patent filed before that date. Merck has also granted a license to Tekmira to certain of its patents. On March 6, 2014, Alnylam announced that they acquired all assets and licenses from Merck, which included our license agreement.

Bristol-Myers Squibb Company ("BMS")

In May 2010, we announced a research collaboration with BMS. Under this agreement, BMS conducted preclinical work to validate the function of certain genes and shared the data with us to potentially develop RNAi therapeutic drugs against therapeutic targets of interest. We formulated the required RNAi trigger molecules enabled by our LNP technology to silence target genes of interest. BMS paid us $3 million concurrent with the signing of the agreement. We provided a predetermined number of LNP batches over the four-year agreement. In May 2011, we announced a further expansion of the collaboration to include broader applications of our LNP technology and additional target validation work. In May 2014, the collaboration expired and both parties' obligations ended.

U.S. National Institutes of Health (“NIH”)

On October 13, 2010 we announced that together with collaborators at The University of Texas Medical Branch (“UTMB”), we were awarded a new NIH grant, worth $2.4 million, to support research to develop RNAi therapeutics to treat Ebola and Marburg hemorrhagic fever viral infections using our LNP delivery technology. In February 2014, UTMB and Tekmira, along with other collaborators, were awarded additional funding of $3.4 million over five years from the NIH in support of this research.

Halo-Bio RNAi Therapeutics, Inc. ("Halo-Bio")

In August 2011, we entered into a license and collaboration agreement with Halo-Bio. Under the agreement, Halo-Bio granted to us an exclusive license to its multivalent ribonucleic acid MV-RNA technology. The agreement was amended on August 8, 2012 to adjust future license fees and other contingent payments. To date, we have recorded $0.5 million in fees under our license from Halo-Bio. We terminated the agreement with Halo-Bio in July 2013. There are no further payments due or contingently payable to Halo-Bio.

Dicerna Pharmaceuticals, Inc. (“Dicerna”)

In November 2014, Tekmira signed a licensing agreement and a development and supply agreement with Dicerna to license Tekmira's LNP delivery technology for exclusive use in Dicerna's primary hyperoxaluria type 1 (PH1) development program. Dicerna will use Tekmira's third generation LNP technology for delivery of DCR-PH1, Dicerna's product incorporating its Dicer substrate RNA (DsiRNA) molecule, for the treatment of PH1, a rare, inherited liver disorder that often results in kidney failure and for which there are no approved therapies. Under the agreements, Dicerna paid Tekmira $2.5 million upfront and will potentially make payments of $22 million in aggregate development milestones, plus a mid-single-digit royalty on future PH1 sales. This partnership also includes a supply agreement under which we will provide clinical drug supply and regulatory support for the rapid advancement of this product candidate.

Newly acquired assets as a result of our merger with OnCore

In addition to the newly acquired product candidates discussed above, our merger with OnCore resulted in the acquisition of the following:

Cytos Biotechnology Ltd (“Cytos”)

On December 30, 2014, OnCore entered into an exclusive, worldwide, sub-licensable (subject to certain restrictions with respect to licensed viral infections other than hepatitis) license to six different series of compounds. The licensed compounds are Qbeta-derived virus-like particles that encapsulate TLR9, TLR7 or RIG-I agonists and may or may not be conjugated with antigens from hepatitis virus or other licensed viruses. We have an option to expand this license to include additional viral infections other than influenza and Cytos will retain all rights for influenza, all non-viral infections, and all viral infections (other than hepatitis) for which we have not exercised an option.

In partial consideration for this license, upon closing of the Cytos Agreement we will be obligated to pay Cytos up to a total of $67 million for each of the six licensed compound series upon the achievement of specified development and regulatory milestones; for hepatitis and each additional licensed viral infection, up to a total of $110 million upon the achievement of specified sales performance milestones; and tiered royalty payments in the high-single to low-double digits, based upon the proportionate net sales of licensed products in any commercialized combination.

The Baruch S. Blumberg Institute (“Blumberg”) and Drexel University (“Drexel”)

In February 2014, OnCore entered into a license agreement with Blumberg and Drexel that granted us an exclusive (except as to certain know-how and subject to retained non-commercial research rights), worldwide, sub-licensable license to three different compound series: cccDNA inhibitors, capsid assembly inhibitors and HCC inhibitors.

In partial consideration for this license, OnCore paid a license initiation fee of $150,000 and issued warrants to Blumberg and Drexel. Under this license agreement, OnCore also agreed to pay up to $3.5 million in development and regulatory milestones per licensed compound series, up to $92.5 million in sales performance milestones per licensed product, and royalties in the mid-single digits based upon the proportionate net sales of licensed products in any commercialized combination. We are obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from the sub-licensees, subject to customary exclusions.

In November 2014, OnCore entered into an additional license agreement with Blumberg and Drexel pursuant to which OnCore received an exclusive (subject to retained non-commercial research rights), worldwide, sub-licensable license under specified patents and know-how controlled by Blumberg and Drexel covering epigenetic modifiers of cccDNA and STING agonists. In consideration for these exclusive licenses, OnCore made an upfront payment of $50,000. Under this agreement, we will be required to pay up to $1.0 million for each licensed product upon the achievement of a specified regulatory milestone and a low single digit royalty, based upon the proportionate net sales of compounds covered by this intellectual property in any commercialized combination. We are also obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from its sub-licensees, subject to exclusions.

License Agreements between Enantigen (“Enantigen”) and Blumberg and Drexel

In October 2014, OnCore acquired all of the outstanding shares of Enantigen pursuant to a stock purchase agreement. Through this transaction, OnCore acquired a HBV surface antigen secretion inhibitor program and a capsid assembly inhibitor program, each of which are now assets of Tekmira, following the merger with OnCore.

Under the stock purchase agreement, we agreed to pay up to a total of $21.0 million to Enantigen’s selling stockholders upon the achievement of specified development and regulatory milestones, for the first two products that contain either a capsid compound, or a HBV surface antigen compound that is covered by a patent that acquired under this agreement, or a capsid compound from an agreed upon list of compounds, up to a total of $101.5 million in sales performance milestones in connection with the sale of the first commercialized product of Tekmira for the treatment of HBV, regardless of whether such product is based upon assets acquired under this agreement, and low single digit royalty on net sales of such first commercialized HBV product, up to a maximum royalty payment of $1.0 million that, if paid, would be offset against our milestone payment obligations.

Under the stock purchase agreement, we also agreed that Enantigen would cause Enantigen to fulfill its obligations under Enantigen's three patent license agreements with Blumberg and Drexel. Pursuant to each patent license agreement, Enantigen is obligated to pay Blumberg and Drexel up to approximately $500,000 in development and regulatory milestones per licensed product, royalties in the low single digits, and a percentage of revenue it receives from its sub-licensees.

Research Collaboration and Funding Agreement with Blumberg

In October 2014, OnCore entered into a research collaboration and funding agreement with Blumberg under which we will provide $1.0 million per year of research funding for three years, renewable at our option for an additional three years, for Blumberg to conduct research projects in HBV and liver cancer pursuant to a research plan to be agreed upon by the parties. Blumberg has exclusivity obligations to Tekmira with respect to HBV research funded under the agreement. In addition, we have the right to match any third party offer to fund HBV research that falls outside the scope of the research being funded under the agreement. Blumberg has granted us the right to obtain an exclusive, royalty bearing, worldwide license to any intellectual property generated by any funded research project. If we elect to exercise our right to obtain such a license, we will have a specified period of time to negotiate and enter into a mutually agreeable license agreement with Blumberg. This license agreement will include the following pre negotiated upfront, milestone and royalty payments: an upfront payment in the amount of $100,000; up to $8.1 million upon the achievement of specified development and regulatory milestones; up to $92.5 million upon the achievement of specified commercialization milestones; and royalties at a low single to mid-single digit rates based upon the proportionate net sales of licensed products from any commercialized combination.

NeuroVive Pharmaceutical AB ("NeuroVive")

In September 2014, OnCore entered into a license agreement with NeuroVive that granted us an exclusive, worldwide, sub-licensable license to develop, manufacture and commercialize, for the treatment of HBV, oral dosage form sanglifehrin based cyclophilin inhibitors (including OCB-030). Under this license agreement we have been granted a non-exclusive, royalty free right and license and right of reference to NeuroVive's relevant regulatory approvals and filings for the sole purpose of developing, manufacturing and commercializing licensed products for the treatment of HBV. Under this license agreement, we have (1) an option to expand our exclusive license to include treatment of viral diseases other than HBV and (2) an option, exercisable upon specified conditions, to expand our exclusive license to include development, manufacture and commercialization of non-oral variations of licensed products for treatment of viral diseases other than HBV. NeuroVive retains all rights with respect to development, manufacture and commercialization of licensed products and non-oral variations of licensed products for all indications (other than HBV) for which we have not exercised our option.

In partial consideration for this license, OnCore paid NeuroVive a license fee of $1 million. We are also obligated to pay up to $47.0 million in clinical development and regulatory milestones per indication and up to $102.5 million in sales performance milestones per licensed product and indication. If we are acquired by a third party in a transaction that meets certain criteria, then we or our acquiror will be obligated to pay all remaining development, regulatory and sales milestone payments, regardless of whether the applicable milestone events have been achieved, for each licensed product that entered clinical development before such acquisition. We agreed to pay NeuroVive tiered royalties in the mid-single to low-double digit range based upon the proportionate gross sales of patented licensed products from any commercialized combination. If we terminate this license agreement in its entirety for convenience prior to the first commercial sale of any licensed product, we will be obligated to pay NeuroVive $2 million.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The significant accounting policies that we believe to be most critical in fully understanding and evaluating our financial results are revenue recognition, stock-based compensation, share purchase warrant valuation and financial instrument valuation. These accounting policies require us to make certain estimates and assumptions. We believe that the estimates and assumptions upon which we rely are reasonable, based upon information available to us at the time that these estimates and assumptions are made. Actual results may differ from our estimates. Our critical accounting estimates affect our net income or loss calculation.

Revenue Recognition / Our primary sources of revenue have been derived from research and development collaborations and contracts, and licensing fees comprised of initial fees and milestone payments. Payments received under research and development agreements and contracts, which are non-refundable, are recorded as revenue as services are performed and as the related expenditures are incurred pursuant to the agreement, provided collectability is reasonably assured. Revenue earned under research and development manufacturing collaborations where we bear some or all of the risk of a product manufacture failure is recognized when the purchaser accepts the product and there are no remaining rights of return. Revenue earned under research and development collaborations and contracts where we do not bear any risk of product manufacture failure is recognized in the period the work is performed. Revenue earned under contractual arrangements upon the achievement of substantive milestones is recognized in its entirety in the period the payment has been received. We evaluate whether milestones under research and development arrangements are substantive by considering: whether substantive uncertainty exists upon the execution of the arrangement; the event can only be achieved based in whole or in part on our performance or occurrence of a specific outcome resulting from the our performance; any future performance required and payment is reasonable relative to all deliverables; and, payment terms in the arrangement. Initial fees and non-substantive milestone payments are deferred and amortized into income over the estimated period of our involvement as we fulfill our obligations under our agreements.

The revenue that we recognize is a critical accounting estimate because of the volume and nature of the revenues we receive. Some of the research, development and licensing agreements that we have entered into contain multiple revenue elements that are to be recognized for accounting in accordance with our revenue recognition policy. We need to make estimates as to what period the services will be delivered with respect to up-front licensing fees and milestone payments received because these payments are deferred and amortized into income over the estimated period of our ongoing involvement. The actual period of our ongoing involvement may differ from the estimated period determined at the time the payment is initially received and recorded as deferred revenue. This may result in a different amount of revenue that should have been recorded in the period and a longer or shorter period of revenue amortization. When an estimated period changes we amortize the remaining deferred revenue over the estimated remaining time to completion. The rate at which we recognize revenue from payments received for services to be provided under research and development agreements depends on our estimate of work completed to date and total work to be provided. The actual total services provided to earn such payments may differ from our estimates.

Our DoD contract for TKM-Ebola is based on cost reimbursement plus an incentive fee. At the beginning of our fiscal year we estimate our labor and overhead rates for the year ahead. During the year, we re-estimate our labor and overhead rates and adjust our revenue accordingly. Our actual labor and overhead rates will differ from our estimate based on actual costs incurred and the proportion of our efforts on contracts and internal products versus indirect activities. Within minimum and maximum collars, the amount of incentive fee we can earn under the DoD contract varies based on our costs incurred versus budgeted costs, with the exception of the Ebola-Guinea Amendment, which has a fixed incentive fee. During the contractual period, incentive fee revenue and total costs are impacted by management's estimate and judgments which are continuously reviewed and adjusted, as necessary, using the cumulative catch-up method. At December 31, 2012, we were not able to make a reliable estimate of the final contract costs, and only the minimum incentive fee achievable and earned was recognized. For the years ended December 31, 2013 and 2014, we believe we were able to reliably estimate the final contract costs so have recognized the portion of expected incentive fee which has been earned to date.

Our revenue for 2014 was $15.0 million (2013 - $15.5 million, 2012 - $14.1 million) and deferred revenue at December 31, 2014 was $15.7 million (December 31, 2013 - $3.5 million).

Stock-based compensation / The stock-based compensation that we record is a critical accounting estimate due to the value of compensation recorded, the volume of our stock option activity, and the many assumptions that are required to be made to calculate the compensation expense.

Compensation expense is recorded for stock options issued to employees and directors using the fair value method. We must calculate the fair value of stock options issued and amortize the fair value to stock compensation expense over the vesting period, and adjust the expense for stock option forfeitures and cancellations. We use the Black-Scholes model to calculate the fair value of stock options issued which requires that certain assumptions, including the expected life of the option and expected volatility of the stock, be estimated at the time that the options are issued. This accounting estimate is reasonably likely to change from period to period as further stock options are issued and adjustments are made for stock option forfeitures and cancellations. We make an estimate for stock option forfeitures at the time of grant and revise this estimate in subsequent periods if actual forfeitures differ. The term "forfeitures" is distinct from "cancellations" or "expirations" and represents only the unvested portion of the surrendered stock option. Prior to Q2 2014, for the purpose of calculating the fair value, the expected life of stock options granted was eight years for employees, and ten years for directors and executives. Based on the pattern of increasing exercises of stock options, we have reduced the expected life to five years for employees and eight years for directors and executives for stock options granted after March 31, 2014. The expected life and fair values of stock-options granted prior to this date remain unchanged. The reduction in expected life has the effect of reducing the fair value of stock-options granted. We amortize the fair value of stock options using the straight-line method over the vesting period of the options, generally a period of three years for employees and immediate vesting for directors.

We recorded stock-based compensation expense in 2014 of $3.3 million (2013 - $0.9 million, 2012 - $1.0 million). The impact on the fair value of stock options due to the reduction in expected life is minor, as we would have recorded stock-based compensation expense of $3.4 million in 2014 using the previous expected life assumptions of eight and ten years for employees and directors and executives, respectively.

Share purchase warrant valuation / The valuation of share purchase warrants is a critical accounting estimate due to the value of liabilities recorded and the many assumptions that are required to calculate the liability, resulting in the classification of our warrant liability as a level 3 financial instrument.

We classify warrants in our consolidated balance sheet as liabilities and revalue them at each balance sheet date. Any change in valuation is recorded in our statement of operations. We use the Black-Scholes pricing model to value the warrants. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment. A small change in the estimates used may cause a relatively large change in the estimated valuation. Due to ongoing changes in our business and general stock market conditions, we continuously assess our warrant fair value assumptions. We adjust the estimated expected life as appropriate, based on the pattern of exercises of our warrants. Our expected volatility is calculated based on our historic share price fluctuations over the same period as our estimated expected life of our outstanding warrants. The risk-free interest rate is based on the Government of Canada rate for bonds with a maturity similar to the expected remaining life of the warrants at the valuation date.

We recorded a loss for the change in fair value of warrant liability in 2014 of $10.4 million (2013 – loss of $3.5 million, 2012 – loss of $3.8 million).

Financial instrument valuation / The valuation of our financial instrument, which is Monsanto's option to acquire either the shares or assets of Protiva Agricultural Development Company Inc., is a critical accounting estimate due to the potential value of the liability and the many assumptions we must make to calculate the fair value of the liability.

We classify the financial instrument in our consolidated balance sheet as a liability and revalue it at each balance sheet date. Any change in the valuation is recorded in our statement of operations. We used a discounted cash flow model to value the financial instrument. Determining the appropriate fair value model and calculating the fair value of the financial instrument requires considerable judgment, and changes in assumptions used may cause a relatively large change in the estimated valuation. The initial valuation of the financial instrument was determined to be nil. No change in the fair value of the financial instrument was recorded as at December 31, 2014.

SUMMARY OF QUARTERLY RESULTS

The following table presents our unaudited quarterly results of operations for each of our last eight quarters. These data have been derived from our unaudited condensed consolidated financial statements, which were prepared on the same basis as our annual audited financial statements and, in our opinion, include all adjustments necessary, consisting solely of normal recurring adjustments, for the fair presentation of such information.

(in millions $ except per share data) – unaudited

	Q4 2014	Q3 2014	Q2 2014	Q1 2014	Q4 2013	Q3 2013	Q2 2013	Q1 2013
Revenue								
Collaborations and contracts:								
DoD	$ 2.8	$ 1.5	$ 0.9	$ 3.2	$ 2.6	$ 2.8	$ 2.4	$ 1.9
Monsanto	0.3	0.3	0.2	0.3	—	—	—	—
Dicerna	0.3	0.2	—	—	—	—	—	—
Other	—	1.6	—	0.2	(0.1)	0.1	0.4	0.2
	3.4	3.6	1.1	3.7	2.6	2.9	2.8	2.1
Alnylam milestone payments	—	—	—	0.2	5.0	—	—	—
Monsanto licensing fees and milestone payments	0.9	0.7	0.6	0.5	—	—	—	—
Spectrum milestone and royalty payments	0.1	0.1	0.0	0.0	—	—	—	—
Total revenue	**4.4**	**4.4**	**1.8**	**4.4**	**7.6**	**2.9**	**2.8**	**2.1**
Expenses	(15.1)	(11.2)	(11.2)	(10.4)	(9.9)	(6.6)	(5.9)	(5.1)
Other income (losses)	4.5	(1.8)	3.3	(12.0)	(0.2)	(2.2)	0.1	0.5
Net loss	**(6.2)**	**(8.6)**	**(6.1)**	**(18.0)**	**(2.6)**	**(5.9)**	**(3.0)**	**(2.5)**
Basic net loss per share	**$ (0.27)**	**$ (0.39)**	**$ (0.28)**	**$ (0.91)**	**$ (0.15)**	**$ (0.41)**	**$ (0.21)**	**$ (0.17)**
Diluted net loss per share	**$ (0.27)**	**$ (0.39)**	**$ (0.28)**	**$ (0.91)**	**$ (0.15)**	**$ (0.41)**	**$ (0.21)**	**$ (0.17)**

Quarterly Trends

Revenue / Our revenue is derived from research and development collaborations and contracts, licensing fees, milestone and royalty payments. Over the past two years, our principal source of ongoing revenue has been our contract with the DoD to advance TKM-Ebola which began in July 2010. We expect revenue to continue to fluctuate particularly due to the development stage of the TKM-Ebola contract and the irregular nature of licensing and milestone receipts.

In Q3 2010 we signed a contract with the DoD to develop TKM-Ebola and have since incurred significant program costs related to equipment, materials and preclinical and clinical studies. These costs are included in our research, development, collaborations and contracts expenses. These costs are fully reimbursed by the DoD, and this reimbursement amount is recorded as revenue. DoD revenue from the TKM-Ebola program also compensates us for labor and overheads and provides an incentive fee. As described in our critical accounting policies, we estimate the labor and overhead rates to be charged under our TKM-Ebola contract and update these rate estimates throughout the year. Q1 2013 DoD revenue was lower as certain activities were still building momentum following the stop-work order that occurred in Q3 2012. TKM-Ebola contract revenue increased in Q2, Q3 and Q4 2013 as technology transfer, manufacturing and non-clinical studies were all ongoing. In April 2014, we signed a contract modification to increase the stage one targeted funding by $2.1 million to $43.8 million. The additional funding is to compensate us for unrecovered costs related to the temporary stop-work period that occurred in 2012 and to provide additional overhead funding should it be required. In Q2 2014, we earned $3.2 million in DoD revenue, due partially to an increase in activity as we moved into a Phase I Clinical Trial. Also, as a result of the contract modification, we now expect to complete the initial stage of the contract close to budget, which increases our estimate of total incentive fee to be earned under the contract and the amount we have earned to date. In Q2 2014, we earned $0.9 million in DoD revenue due to lower contract activity as our clinical trial data was with the FDA for review. DoD revenue increased in Q3 2014 with an increase in activity as we prepared a response to the FDA's partial clinical hold on our Phase I Clinical Trial. In October 2014, the DoD exercised a contract option adding $7.0 million to the contract for the scale-up and manufacture of TKM-Ebola-Guinea, our product targeting the Ebola-Guinea strain responsible for the current outbreak in West Africa. DoD revenue increased in Q4 2014 to $2.8 million as we purchased materials for the manufacture of TKM-Ebola-Guinea.

In January 2014, we signed an Option Agreement and a Services Agreement with Monsanto for the use of our proprietary delivery technology and related intellectual property in agriculture. Over the option period, which is expected to be approximately four years, Monsanto will make payments to us to maintain their option rights. In Q1 2014, we received $14.5 million of the $17.5 million near term payments, of which $4.5 million relates to research services and $10.0 million for the use of our technology. In June 2014 and October 2014, we received further payments of $1.5 million each, following the completion of specified program developments. The payments are being recognized as revenue on a straight-line basis over the option period.

In November 2014, we signed a License Agreement and a Development and Supply Agreement with Dicerna for the use of our proprietary delivery technology and related technology intended to develop, manufacture, and commercialize products related to treatment of PH1. In Q4 2014, we received an upfront payment of $2.5 million, which is being recognized over the period over which we provide services to Dicerna, estimated to complete in Q1 2017.

In Q4 2013 we earned a $5.0 million milestone from Alnylam following their initiation of a Phase III trial enabled by our LNP technology.

In Q4 2013, we began to earn royalties from Spectrum with respect to the commercial sales of Marqibo.

Included in "other collaborations and contract revenue" is revenue from a BMS batch formulation agreement. In Q4 2013, we offered to extend the BMS agreement end date from May 2014 to December 2014. Extending the agreement would have given BMS more time to order LNP batches. Revenue recognized in 2013 has been reduced and the balance of deferred revenue as at December 31, 2013 has been increased to account for BMS potentially ordering more batches under the agreement. This agreement is reflected in the $0.1 million of negative "other revenue" in Q4 2013 when the offer was made to extend the agreement and a cumulative revenue adjustment was recorded. In August 2014, we received notification from BMS that the extension would not occur. As such, the collaboration expired and both parties' obligations under the agreement ended. Revenue recognized in Q3 2014 relates to the release of the deferred revenue balance of $1.6 million.

Expenses / Expenses consist primarily of clinical and pre-clinical trial expenses, personnel expenses, consulting and third party expenses, reimbursable collaboration expenses, consumables and materials, patent filing expenses, facilities, stock-based compensation and general corporate costs.

Our expenses have increased in the past eight quarters due to an increase in our research and development activities as we seek to move more products into the clinic. In Q3 2013, we initiated a Phase I/II Clinical Trial for TKM-PLK1 in patients with GI-NET or ACC. In Q1 2014, we dosed the first subject in human clinical trials of TKM-Ebola. In Q2 2014, we initiated a Phase I/II Clinical Trial for TKM-PLK1 in patients with HCC. In Q4 2014, we filed a Canadian Clinical Trial Application (CTA) for TKM-HBV and received clearance to conduct a Phase I Clinical Trial, as well as initiated manufacturing of TKM-Ebola-Guinea for emergency use in West Africa – see overview. We also incurred research and development expenses related to identifying new targets.

Other income (losses) / Other income (losses) consist primarily of changes in the fair value of our warrant liability and foreign exchange differences. Other losses increased in Q3 2013, Q1 2014, and Q3 2014 due primarily to the increase in fair value of our warrant liability. Increases in our share price from the previous reporting date result in an increase in the fair value of our warrant liability, and vice versa. We expect to see future changes in the fair value of our warrant liability and these changes will largely depend on the change in the Company's share price, any change in our assumed rate of share price volatility, our assumptions for the expected lives of the warrants and warrant exercises.

Net loss / Fluctuations in our net loss are explained by changes in revenue, expenses and other income (losses) as discussed above.

Fourth quarter of 2014 / Our Q4 2014 net loss was $6.2 million ($0.27 basic and diluted loss per common share) as compared to a net loss of $2.6 million ($0.15 basic and diluted loss per common share) for Q4 2013.

Revenue was $4.6 million in Q4 2014 as compared to $7.6 million in Q4 2013. The decrease was largely due to the $5.0 million milestone payment from Alnylam received in Q4 2013.

Research, development, collaborations and contracts expenses increased to $11.9 million in Q4 2014 as compared to $7.0 million in Q4 2013. In Q4 2014, we increased research and development activities related to moving TKM-HBV into the clinic, including costs incurred in preparing a CTA, as well as costs incurred to support the ongoing HCC Phase I clinical trial for TKM-PLK1. Further, in Q4 2014, we purchased materials for the manufacture of TKM-Ebola-Guinea for use in West Africa – see overview.

Other losses in Q4 2013 primarily consists of $1.4 million increase in warrant liability due to the increase in our share price, and a foreign exchange gain of $1.1 million on our US dollar funds. Other gains in Q4 2014 primarily consist of a $2.6 million decrease in the fair value of our warrant liability, and a foreign exchange gain of $2.3 million on US dollar funds. We also incurred $0.5 million in acquisition costs related to the merger with OnCore in Q1 2015 – see overview.

RESULTS OF OPERATIONS

The following summarizes the results of our operations for the 2014, 2013, and 2012 fiscal years, in millions of dollars:

	2014	2013	2012
Total revenue	**15.0**	15.5	14.1
Operating expenses	**47.9**	27.6	27.0
Loss from operations	**(33.0)**	(12.2)	(12.9)
Net income (loss)	**(38.8)**	(14.1)	29.6
Basic income (loss) per share	**(1.80)**	(0.92)	2.16
Diluted income (loss) per share	**(1.80)**	(0.92)	2.07
Total assets	**118.2**	71.7	52.6
Total liabilities	**30.1**	12.5	11.7
Total non-current liabilities	**9.9**	0.0	0.7
Deficit	**(205.9)**	(167.0)	(153.0)
Accumulated other comprehensive loss	**(22.3)**	(15.8)	(12.7)
Total stockholders' equity	**88.0**	59.2	40.9

Year ended December 31, 2014 compared to the year ended December 31, 2013

For the fiscal year ended December 31, 2014, our net loss was $38.8 million ($1.80 basic and diluted loss per common share) as compared to a net loss of $14.1 million ($0.92 basic and diluted loss per common share) for 2013.

Revenue / Revenue is summarized in the following table, in millions:

	2014	**% of Total**	2013	% of Total
Collaborations and contracts				
DoD	**8.4**	**56%**	9.8	63%
Monsanto	**1.1**	**7%**	-	-
BMS	**1.7**	**12%**	0.5	3%
Other RNAi collaborators	**0.5**	**3%**	0.1	1%
Total collaborations and contracts	**11.7**	**78%**	10.4	68%
Monsanto licensing fees and milestone payments	**2.7**	**19%**	-	-
Alnylam milestone payments	**0.2**	**1%**	5.0	32%
Dicerna licensing fee	**0.2**	**1%**	-	-
Spectrum milestone and royalty payments	**0.2**	**1%**	0.0	0%
Total revenue	**15.0**		15.5	

DoD revenue

On July 14, 2010, we signed a contract with the United States Government Department of Defense ("DoD") to advance an RNAi therapeutic utilizing our LNP technology to treat Ebola virus infection (see Overview for further discussion). The initial phase of the contract was budgeted at $34.7 million. This stage one funding is for the development of TKM-Ebola, including, completion of preclinical development, filing an IND application with the FDA and completing a Phase I human safety clinical trial. The DoD has the option of extending the contract beyond the initial funding period to support the advancement of TKM-Ebola through to the completion of clinical development and FDA approval. Based on the contract's budget, this would provide the Company with up to $140 million in funding for the entire program.

In November 2012, we submitted a modification request to the existing contract to the DoD in order to integrate recent advancements in LNP formulation and manufacturing technology in the TKM-Ebola development program. The modification was approved and increased the stage one targeted funding from $34.7 million to $41.7 million. In April 2014, we signed a contract modification with the DoD to increase the stage one targeted funding by a further $2.1 million to $43.8 million. The additional funding is to compensate us for unrecovered costs incurred related to the temporary stop-work period that occurred in 2012 and to provide additional overhead funding should it be required. In October 2014, the DoD exercised an option valued at $7.0 million, awarded to us to manufacture TKM-Ebola-Guinea targeting the Ebola-Guinea strain responsible for the current outbreak in West Africa.

Under the contract, we are being reimbursed for costs incurred, including an allocation of overheads, and we are being paid an incentive fee.

DoD revenues and related contract expenses were lower in 2014 as compared to 2013 as we are nearing the end of stage one of the contract so most activities for this stage have already been completed. The reduction in stage one revenue in 2014 was offset by the addition of the $7.0 million award for the manufacture of TKM-Ebola-Guinea towards the end of 2014.

Monsanto revenue

On January 13, 2014, we signed an Option Agreement and a Services Agreement (together, the "Agreements") with Monsanto. Under the Agreements, Monsanto has an option to acquire a license to use our proprietary delivery technology and related intellectual property for use in agriculture. Over the option period, which is expected to be approximately four years, we will provide lipid formulations for Monsanto's research and development activities, and Monsanto will make certain payments to us to maintain their option rights (see Overview for further discussion).

In January 2014, we received $14.5 million, of which $4.5 million relates to research services and $10.0 million for the use of our technology, In June and September 2014, we received payments of $1.5 million each, following the completion of specified program developments. We are recognizing this revenue on a straight-line basis over the option period. For the year-ended December 31, 2014, we have recorded an aggregate of $3.8 million in revenue for the use of our technology and for research activities.

Alnylam and Acuitas revenue

On November 12, 2012, we entered into a new licensing agreement with Alnylam that replaces all earlier licensing, cross-licensing, collaboration, and manufacturing agreements. We also entered into a separate cross license agreement with Acuitas, which includes milestones and royalty payments, and Acuitas has agreed not to compete in the RNAi field for five years.

In November 2013, Alnylam initiated a Phase III trial with ALN-TTR02, also known as patisiran, and an associated $5.0 million development milestone was paid to us in December 2013. In March 2014, we earned a $0.15 milestone payment from Acuitas following their receipt of a milestone from Alnylam with the initiation of the ALN-TTR02 Phase III trial.

On June 21, 2013, we transferred manufacturing process technology to Ascletis to enable them to produce ALN-VSP, a product candidate licensed to them by Alnylam. We believe that under our licensing agreement with Alnylam, the technology transfer to Ascletis triggers a $5.0 million milestone obligation from Alnylam to us. However, Alnylam has demanded a declaration that we have not yet met its milestone obligations. We dispute Alnylam's position. To remedy this dispute, we have commenced arbitration proceedings with Alnylam, as provided for under the agreement. The hearing date for this arbitration is currently set for the second week in May, 2015. We have not recorded any revenue in respect of this milestone.

BMS revenue

In May 2010 we signed a formulation agreement with BMS under which BMS paid us $3.0 million to make a certain number of LNP formulations over the following four year period. Revenue recognized in 2012 and 2013 relate to LNP batches the company produced in proportion to the maximum LNP formulations that may be required under the contract. As at December 31, 2013, we intended to offer BMS an extension to the agreement's end date from May 10, 2014 to December 31, 2014. Extending the agreement would have given BMS more time to order LNP batches. The offer of extension resulted in a cumulative revenue adjustment recorded for the year-ended December 31, 2013. In August 2014, we received notification from BMS that the extension would not occur. Revenue recognized for the year-ended December 31, 2014 relates to the batches shipped to BMS during the period and the release of any remaining deferred revenue balance now that the agreement has expired and no further obligation with either party.

Dicerna revenue

In November 2014, we signed a License Agreement and a Development and Supply Agreement with Dicerna for the use of our proprietary delivery technology and related technology intended to develop, manufacture, and commercialize products related to treatment of PH1. Revenue recognized for the year-ended December 31, 2014 relates to the earned portion of the upfront payment of $2.5 million for the use our of technology, which is being recognized over the period over which we provide services to Dicerna, estimated to complete in March 2017.

Spectrum revenue

In September 2013, Spectrum announced that they had shipped the first commercial orders of Marqibo. For the year-ended December 31, 2014, we earned royalties of $0.2 million on the sales of Marqibo, which uses a license to our technology.

Expenses / Expenses are summarized in the following table, in millions:

		2014	% of Total		2013	% of Total
Research, development, collaborations and contracts	$	**38.7**	**81%**	$	21.5	78%
General and administrative		**8.7**	**17%**		5.5	20%
Depreciation		**0.5**	**1%**		0.6	2%
Total operating expenses	**$**	**47.9**		$	27.6	

Research, development, collaborations and contracts

Research, development, collaborations and contracts expenses consist primarily of clinical and pre-clinical trial expenses, personnel expenses, consulting and third party expenses, consumables and materials, as well as a portion of stock-based compensation and general corporate costs.

In 2013, research and development costs were primarily related to our internal earlier-stage research programs, moving TKM-PLK1 into Phase I/II clinical trial, and new targets identification: TKKM-HBV and TKM-ALDH2. In 2014, our research and development costs increased as we incurred incremental costs related to the progress of moving additional products into the clinic: the initiation of Phase I /II clinical trials in patients with HCC resulting in the expansion in the number of clinical trials sites and patients accrual for TKM-PLK1, significant research and preclinical spending on TKM-HBV to file a CTA to move into the clinic, as well as an increase in manufacturing activities under the DoD contract in response to the current Ebola outbreak in West Africa. In addition, we incurred incremental research and development spending for new partner collaborations we entered into in 2014, as well as spending on new targets identification – see Overview for further details.

Compensation expenses increased in 2014 as compared to 2013. There was an increase in workforce of 38 employees in 2014 to support our expanded portfolio of product candidates. In addition, R&D stock-based compensation expense increased significantly due, in part, to the increase in our share price.

A significant portion of our research, development, collaborations and contracts expenses are not tracked by project as they benefit multiple projects or our technology platform and because our most-advanced programs are not yet in late-stage clinical development. However, our collaboration agreements contain cost-sharing arrangements pursuant to which certain costs incurred under the project are reimbursed. Costs reimbursed under collaborations typically include certain direct external costs and hourly or full-time equivalent labor rates for the actual time worked on the project. In addition, we have been reimbursed under government contracts for certain allowable costs including direct internal and external costs. As a result, although a significant portion of our research, development, collaborations and contracts expenses are not tracked on a project-by-project basis, we do, however, track direct external costs attributable to, and the actual time our employees worked on, our collaborations and government contracts.

General and administrative

General and administrative expenses increased in 2014 due largely to an increase in compensation expenses. Our employee base grew in support of our expanding pipeline and we had a significant increase in stock-based compensation expense due, in part, to the increase in our share price. We incurred incremental spending on legal fees and consultants related to new compliance requirements linked to the growth of the Company.

Other income (losses) / Other income (losses) are summarized in the following table, in millions:

		2014		2013
Interest income	$	**0.9**	$	0.5
Foreign exchange gains		**4.1**		1.1
Increase in fair value of warrant liability		**(10.4)**		(3.5)
Acquisition costs		**(0.5)**		-
Total other income (losses)	**$**	**(5.9)**	$	(1.9)

Increase in fair value of warrant liability

In conjunction with equity and debt financing transactions in 2011 and 2012, we issued warrants to purchase our common share. We are accounting for the warrants under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. At each balance sheet date the warrants are revalued using the Black-Scholes model and the change in value is recorded in the consolidated statement of operations and comprehensive income (loss).

The aggregate increase in value of our common share purchase warrants outstanding at December 31, 2014 was $10.4 million as compared to an increase in the value of common share purchase warrants outstanding at the end of 2013 of $3.5 million. The increases are a result of increases in the Company's share price from the previous reporting dates.

We expect to see future changes in the fair value of our warrant liability and these changes will largely depend on the change in the Company's share price, and, to a lesser extent, any change in our assumed rate of share price volatility, our assumptions for the expected lives of the warrants and warrant exercises.

Year ended December 31, 2013 compared to the year ended December 31, 2012

For the fiscal year ended December 31, 2013, our net loss was $14.1 million ($0.92 basic and diluted loss per common share) as compared to net income of $29.6 million ($2.16 basic income per common share, $2.07 diluted income per common share) for 2012.

Revenue / Revenue is summarized in the following table, in millions:

		2013	**% of Total**		2012	% of Total
Collaborations and contracts						
DoD	$	**9.8**	**63%**	$	11.5	82%
BMS		**0.5**	**3%**		0.4	3%
Other RNAi collaborators		**0.1**	**1%**		0.1	1%
Total collaborations and contracts		**10.4**	**68%**		12.1	86%
Alnylam milestone payments		**5.0**	**32%**		1.0	7%
Spectrum milestone and royalty payments		**0.0**	**0%**		1.0	7%
Total revenue	**$**	**15.5**		$	14.1	

DoD revenue

On July 14, 2010, we signed a contract with the DoD to advance an RNAi therapeutic utilizing our LNP technology to treat Ebola virus infection (see Overview for further discussion). Under the contract, we are being reimbursed for costs incurred, including an allocation of overheads, and we are being paid an incentive fee.

On August 6, 2012, we announced that we had received a temporary stop-work order from the DoD in respect of our TKM-Ebola contract. On October 2, 2012, we announced that the stop-work order had been lifted and we resumed work.

In November 2012, we submitted a modification request to the existing contract to the DoD in order to integrate recent advancements in LNP formulation and manufacturing technology in the TKM-Ebola development program. The modification was approved and increased the stage one targeted funding from $34.7 million to $41.7 million.

Alnylam revenue

In June 2012 we earned a $1.0 million milestone from Alnylam following their initiation of a Phase II human clinical trial for their product candidate ALN-TTR02. ALN-TTR02 utilizes our LNP technology.

In November 2013, Alnylam initiated a Phase III trial with ALN-TTR02, also known as patisiran, and an associated $5.0 million development milestone was paid to us in December 2013.

On June 21, 2013, we transferred manufacturing process technology to Ascletis to enable them to produce ALN-VSP, a product candidate licensed to them by Alnylam. We believe that under our licensing agreement with Alnylam, the technology transfer to Ascletis triggers a $5.0 million milestone obligation from Alnylam to us. However, Alnylam has demanded a declaration that we have not yet met its milestone obligations. We dispute Alnylam's position. To remedy this dispute, we have commenced arbitration proceedings with Alnylam, as provided for under the agreement. In addition to seeking payment of the milestone, we have filed a claim against Alnylam for breach of contract, breach of the implied covenant of good faith and fair dealing, and fraud. The hearing date for this arbitration is currently set for the second week in May, 2015. We have not recorded any revenue in respect of this milestone.

BMS revenue

See discussion in "BMS revenue" section above.

Spectrum revenue

In August 2012, we earned a $1.0 million milestone payment from Talon based on the FDA approval of Marqibo. Talon was acquired by Spectrum in July 2013. The acquisition does not affect the terms of our license with Talon. In September 2013, Spectrum announced that they had shipped the first commercial orders of Marqibo.

Expenses / Expenses are summarized in the following table, in millions:

		2013	**% of Total**		2012	% of Total
Research, development, collaborations and contracts	$	**21.5**	**78%**	$	18.0	67%
General and administrative		**5.5**	**20%**		8.1	30%
Depreciation		**0.6**	**2%**		0.9	3%
Total operating expenses		**27.6**			27.0	

Research, development, collaborations and contracts

Research, development, collaborations and contracts expenses consist primarily of clinical and pre-clinical trial expenses, personnel expenses, consulting and third party expenses, consumables and materials, as well as a portion of stock-based compensation and general corporate costs.

In 2012, spending on our internal earlier-stage research programs was reduced as we focused on TKM-Ebola, TKM-PLK1 and the litigation against Alnylam and Acuitas. In 2013, we resumed research activities and spending on earlier-stage research programs and new target identification, including new 2013 programs TKM-HBV and TKM-ALDH2 – see Overview. In 2013, there was additional spending on the TKM-PLK1 program as we moved into Phase I/II and opened up more clinical trial sites. Compensation expenses are at a similar level in 2013 as compared to 2012. There was an increase in workforce of 19 employees in 2013, but there was a higher bonus payout in 2012 following settlement with Alnylam and Acuitas.

General and administrative

General and administrative expenses were higher in 2012 due to legal fees incurred in respect of our lawsuit with Alnylam and Acuitas.

Other income (losses) / Other income (losses) are summarized in the following table, in millions:

		2013		2012
Interest income	**$**	**0.5**	$	0.1
Licensing settlement payment		**-**		65.0
Licensing settlement legal fees		**-**		(18.7)
Foreign exchange gains		**1.1**		-
Increase in fair value of warrant liability		**(3.5)**		(3.8)
Total other income (losses)	**$**	**(1.9)**	$	42.6

Licensing settlement payment and legal fees

In November 2012 we received $65.0 million in cash from Alnylam as a result of signing a new license agreement. In connection with the licensing settlement payment of $65.0 million, in December 2012, we paid our lead legal counsel $18.7 million in contingent legal fees.

No payments were made or received in 2013 related to the Alnylam settlement as the litigation was settled in 2012.

Increase in fair value of warrant liability

In conjunction with equity and debt financing transactions in 2011 and an equity private placement that closed on February 29, 2012, we have issued warrants to purchase our common share. We are accounting for the warrants under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. At each balance sheet date the warrants are revalued using the Black-Scholes model and the change in value is recorded in the consolidated statement of operations and comprehensive income (loss).

The aggregate increase in value of our common share purchase warrants outstanding at December 31, 2013 was $3.5 million as compared to an increase at the end of 2012 of $3.8 million. The increases are a result of increases in the Company's share price from the previous reporting dates.

We expect to see future changes in the fair value of our warrant liability and these changes will largely depend on the change in the Company's share price and, to a lesser extent, any change in our assumed rate of share price volatility, our assumptions for the expected lives of the warrants and warrant issuances or exercises.

LIQUIDITY AND CAPITAL RESOURCES

The following table summarizes our cash flow activities for the periods indicated, in millions:

	Year ended December 31		
	2014	2013	2012
Net (loss) income for the year	**(38.8)**	(14.1)	29.6
Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities	**9.9**	5.0	5.7
Changes in operating assets and liabilities	**16.6**	2.3	(2.4)
Net cash (used in) provided by operating activities	**(12.3)**	(6.7)	32.9
Net cash used in investing activities	**(43.0)**	(0.7)	(0.0)
Net cash provided by financing activities	**60.7**	32.7	4.5
Effect of foreign exchange rate changes on cash & cash equivalents	**(1.8)**	(3.6)	0.5
Net increase in cash and cash equivalents	**3.5**	21.7	38.0
Cash and cash equivalents, beginning of year	**68.7**	47.0	9.0
Cash and cash equivalents, end of year	**72.2**	68.7	47.0

Since our incorporation, we have financed our operations through the sales of shares, units, debt, revenues from research and development collaborations and licenses with corporate partners, interest income on funds available for investment, and government contracts, grants and tax credits.

At December 31, 2014, we had cash and cash equivalents of $72.2 million and short-term investments of $40.0 million, totalling $112.2 million as compared to cash and cash equivalents of $68.7 million at December 31, 2013.

Operating activities used $12.3 million in cash in 2014 as compared to $6.7 million used in 2013 and $32.9 million of cash provided in 2012. The positive operating cash flow in 2012 was largely the result of the $65.0 million settlement reached with Alnylam which was recorded as "other income". Non-cash items to reconcile net loss used or provided by operating activities primarily consist of changes in fair value of warrant liability.

Investing activities used $43.0 million in 2014 as compared to $0.7 million in 2013 and $0.01 million in 2012. The increase in cash used in 2014 was primarily due to guaranteed investment certificates acquired in the year.

On February 29, 2012, we completed a private placement of 1,848,601 units for gross proceeds of $4.1 million. Each unit, priced at C$2.20, consists of one common share and one half of one common share purchase warrant. Each whole warrant entitles the holder to acquire one common share at a price of C$2.60 for a period of five years from closing.

On October 22, 2013, we completed an underwritten public offering of 3,750,000 common shares, at a price of $8.00 per share, representing gross proceeds of $30.0 million. On November 1, 2013, the offering's underwriter completed the exercise of its over-allotment option to purchase a further 562,500 shares at $8.00 bringing the aggregate financing gross proceeds to $34.5 million. The cost of the financing, including commissions and professional fees, was $2.5 million, resulting in net proceeds of $32.0 million.

On March 18, 2014, we completed an underwritten public offering of 2,125,000 common shares, at a price of $28.50 per share, representing gross proceeds of $60.5 million. We are using these proceeds to develop and advance product candidates through clinical trials, as well as for working capital and general corporate purposes.

Cash requirements / At December 31, 2014 we held $72.2 million in cash and cash equivalents and $40.0 million in short-term investments. On March 18, 2014, we raised gross proceeds of $60.5 million from a public offering. We believe we have sufficient cash resources for at least the next 12 months. In the future, substantial additional funds will be required to continue with the active development of our pipeline products and technologies. In particular, our funding needs may vary depending on a number of factors including:

- the need for additional capital to fund future business development programs, including the merger with OnCore;
- revenues earned form our current collaborative partnership and licensing agreements with Monsanto and Dicerna;
- revenues earned from our DoD contract to develop TKM-Ebola and TKM-Ebola-Guinea;

- revenues earned from our legacy collaborative partnerships and licensing agreements, including milestone payments from Alnylam and royalties from sales of Marqibo from Spectrum;
- the extent to which we continue the development of our product candidates, add new product candidates to our pipeline, or form collaborative relationships to advance our products;
- our decisions to in-license or acquire additional products or technology for development, in particular for our RNAi therapeutics programs;
- our ability to attract and retain corporate partners, and their effectiveness in carrying out the development and ultimate commercialization of our product candidates;
- whether batches of drugs that we manufacture fail to meet specifications resulting in delays and investigational and remanufacturing costs;
- the decisions, and the timing of decisions, made by health regulatory agencies regarding our technology and products;
- competing technological and market developments; and
- costs associated with prosecuting and enforcing our patent claims and other intellectual property rights, including litigation and arbitration arising in the course of our business activities.

We will seek to obtain funding to maintain and advance our business from a variety of sources including public or private equity or debt financing, collaborative arrangements with pharmaceutical companies and government grants and contracts. There can be no assurance that funding will be available at all or on acceptable terms to permit further development of our products especially in light of the current difficult climate for investment in early stage biotechnology companies.

If adequate funding is not available, we may be required to delay, reduce or eliminate one or more of our research or development programs or reduce expenses associated with non-core activities. We may need to obtain funds through arrangements with collaborators or others that may require us to relinquish most or all of our rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise seek if we were better funded. Insufficient financing may also mean failing to prosecute our patents or relinquishing rights to some of our technologies that we would otherwise develop or commercialize.

Material commitments for capital expenditures / As at the date of this discussion we do not have any material commitments for capital expenditure.

OFF-BALANCE SHEET ARRANGEMENTS

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

CONTRACTUAL OBLIGATIONS

Facility lease / On June 23, 2014, we signed an agreement to renew the lease for our Burnaby office and lab facility. The lease term is for five years, commencing August 1, 2014 with three additional renewal terms of five years each.

Product development partnership with the Canadian Government / We entered into a Technology Partnerships Canada ("TPC") agreement with the Canadian Federal Government on November 12, 1999. Under this agreement, TPC agreed to fund 27% of our costs incurred prior to March 31, 2004, in the development of certain oligonucleotide product candidates up to a maximum contribution from TPC of $7.2 million (C$9.3 million). As at December 31, 2014, a cumulative contribution of $3.5 million (C$3.7 million) had been received and we do not expect any further funding under this agreement. In return for the funding provided by TPC, we agreed to pay royalties on the share of future licensing and product revenue, if any that is received by us on certain non-siRNA oligonucleotide product candidates covered by the funding under the agreement. These royalties are payable until a certain cumulative payment amount is achieved or until a pre-specified date. In addition, until a cumulative amount equal to the funding actually received under the agreement has been paid to TPC, we agreed to pay a 2.5% royalty on any royalties we receive for Marqibo.

In September 2013, we began to earn royalties on Marqibo and have accrued $0.01 million in royalties payable to TPC as at December 31, 2014. The remaining contingently payable balance with TPC as of December 31, 2014 was $3.2 million (C$3.7 million).

License agreement with Marina Biotech, Inc. (“Marina”) / On November 29, 2012, we announced a worldwide, non-exclusive license to a novel RNAi payload technology called Unlocked Nucleobase Analog (“UNA”) from Marina for the development of RNAi therapeutics.

UNA technology can be used in the development of RNAi therapeutics, which treat disease by silencing specific disease causing genes. UNAs can be incorporated into RNAi drugs and have the potential to improve them by increasing their stability and reducing off-target effects.

Under the license agreement we paid Marina an upfront fee of $0.3 million in 2012. A further license payment of $0.2 million was paid in 2013 and we will make milestone payments of up to $3.3 million, plus royalties, on each product that we develop that uses Marina’s UNA technology. The upfront fee and license payment were expensed to research, development, collaborations and contracts expense.

Effective August 9, 2013, Marina’s UNA technology was acquired by Arcturus Therapeutics, Inc. (“Arcturus”) and the UNA license agreement between us and Marina was assigned to Arcturus. The terms of the license are otherwise unchanged.

In December 2014, we received clearance from Health Canada to conduct a Phase I Clinical Study with TKM-HBV, which utilizes Arcturus' UNA technology. This triggered the accrual of a $0.3 million payment to Arcturus as at December 31, 2014.

The following table summarizes our contractual obligations as at December 31, 2014, which does not include commitments acquired from OnCore in January 2015:

(in millions $)	Payments Due by Period				
	Total	Less than 1 year	1 – 3 years	3 – 5 years	More than 5 years
Contractual Obligations					
Facility lease	5.1	1.1	2.2	1.8	—
Technology license obligations (1)	0.3	0.3	—	—	—
Total contractual obligations	5.4	1.4	2.2	1.8	—

[1] Relates to our expected fixed payment obligations under in-license agreements.

We in-license technology from a number of sources. Pursuant to these in-license agreements, we will be required to make additional payments if and when we achieve specified development, regulatory, financial and commercialization milestones. To the extent we are unable to reasonably predict the likelihood, timing or amount of such payments; we have excluded them from the table above. Our technology in-licenses are further described in the Overview section of this discussion.

We also have contracts and collaborative arrangements that require us to undertake certain research and development work as further explained elsewhere in this discussion. It is not practicable to estimate the amount of these obligations.

IMPACT OF INFLATION

Inflation has not had a material impact on our operations.

RELATED PARTY TRANSACTIONS

We have not entered into any related party transactions in the periods covered by this discussion.

OUTSTANDING SHARE DATA

At March 9, 2015, we had 46,567,496 common shares issued and outstanding, outstanding options to purchase an additional 1,862,816 common shares and outstanding warrants to purchase an additional 386,750 common shares.

RECENT ACCOUNTING PRONOUNCEMENTS

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (FASB) or other standard setting bodies that we adopt as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued standards that are not yet effective will not have a material impact on our financial position or results of operations upon adoption.

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers (ASC 606). The standard is intended to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP and IFRS by creating a new Topic 606, Revenue from Contracts with Customers. This guidance supersedes the revenue recognition requirements in ASC 605, Revenue Recognition, and supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition – Construction-Type and Production-Type Contracts. The core principle of the accounting standard is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those good or services. The amendments should be applied by either (1) retrospectively to each prior reporting period presented; or (2) retrospectively with the cumulative effect of initially applying this Update recognized at the date of initial application. The update is effective for annual periods and interim periods within those annual periods, beginning after December 15, 2016, which, for us, means January 1, 2017. Early application is not permitted. The extent of the impact of adoption has not yet been determined.

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements – Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern. The update is intended to provide guidance in GAAP about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. Under amendments to GAAP, the assessment period is within one year after the date that the financial statements are issued (or available to be issued). The amendments are effective for the annual period ending after December 15, 2016, which, for us, means January 1, 2017, and for annual periods and interim periods thereafter. Early application is permitted. We do not plan to early adopt this update. The extent of the impact of this adoption has not yet been determined.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk related to changes in interest rates, which could adversely affect the value of our interest rate sensitive assets and liabilities. We do not hold any instruments for trading purposes and investment decisions are governed by a Board approved Investment Policy. As at December 31, 2014, we had cash and cash equivalents of $72.2 million and short-term investments of $40.0 million, as compared to $68.7 million cash and cash equivalents as at December 31, 2013. We invest our cash reserves in high interest saving accounts and guaranteed investment certificates with varying terms to maturity (not exceeding two years) issued by major Canadian banks, selected with regard to the expected timing of expenditures for continuing operations and prevailing interest rates. The fair value of our cash investments as at December 31, 2014 is at least equal to the face value of those investments and the value reported in our balance sheet. Due to the relatively short-term nature of the investments that we hold, we do not believe that the results of operations or cash flows would be affected to any significant degree by a sudden change in market interest rates relative to our investment portfolio. Our debt instrument sensitive to changes in interest rate is our warrant liability with its fair value determined using the Black-Scholes model, which uses interest rate as an input. We have estimated the effects on our warrant liability based on a one percentage point hypothetical adverse change in interest rates as of December 31, 2014 and 2013. We determined the hypothetical fair value using the same Black-Scholes model, and determined that an increase in the interest rates of one percentage point would have had an adverse change to our warrant liability of $0.01 million and $0.04 million as of December 31, 2014 and 2013, respectively.

In addition, we are exposed to market risk related to changes in foreign currency exchange rates. We have not entered into any agreements or purchased any instruments to hedge possible currency risks at this time. We manage our US dollar exchange rate risk by, whenever possible, using cash received from US dollar revenues and financing to pay US dollar expenses. Prior to our financing in October 2013, which was denominated in US dollars, our policy was to convert all but a working capital level of US dollars into Canadian dollars. Given our increasing level of US dollar expenses, our policy is now to maintain US and Canadian dollar cash and investment balances based on long term forecasts of currency needs thereby creating a natural currency hedge. As of December 31, 2014 and 2013, an adverse change of one percentage point in the foreign currency exchange rates of Canadian to US dollars would have resulted in an incremental loss of $0.7 million and $0.4 million, respectively. We recorded foreign exchange gains of $4.1 million and $1.1 million for the fiscal years ended December 31, 2014 and 2013, respectively.

Item 8. Financial Statements and Supplementary Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Tekmira Pharmaceuticals Corporation

We have audited the accompanying consolidated balance sheets of Tekmira Pharmaceuticals Corporation as of December 31, 2014 and December 31, 2013 and the related consolidated statements of operations and comprehensive income (loss), stockholders' equity and cash flows each of the years in the three-year period ended December 31, 2014. These consolidated financial statements are the responsibility of Tekmira Pharmaceuticals Corporation's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Tekmira Pharmaceuticals Corporation as of December 31, 2014 and December 31, 2013, and its consolidated results of operations and its consolidated cash flows each of the years in the three-year period ended December 31, 2014 in conformity with US generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Tekmira Pharmaceuticals Corporation's internal control over financial reporting as of December 31, 2014, based on the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 12, 2015 expressed an unqualified opinion on the effectiveness of Tekmira Pharmaceuticals Corporation's internal control over financial reporting.

/s/ KPMG LLP
Chartered Accountants
March 12, 2015

Vancouver, Canada

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Tekmira Pharmaceuticals Corporation

We have audited Tekmira Pharmaceuticals Corporation's internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Tekmira Pharmaceuticals Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Annual Report on Internal Control over Financial Reporting*. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Tekmira Pharmaceuticals Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) .

We also have audited, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Tekmira Pharmaceuticals Corporation as of December 31, 2014 and 2013, and the related consolidated statements of operations and comprehensive income (loss), stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2014, and our report dated March 12, 2015 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP
Chartered Accountants
March 12, 2015
Vancouver, Canada

TEKMIRA PHARMACEUTICALS CORPORATION

Consolidated Balance Sheets
(Expressed in thousands of US Dollars, except share and per share amounts)
(Prepared in accordance with US GAAP)

	December 31 2014	December 31 2013
Assets		
Current assets:		
Cash and cash equivalents	**$ 72,187**	$ 68,717
Short-term investments (note 2)	**39,974**	-
Accounts receivable	**1,903**	117
Accrued revenue	**538**	212
Deferred expenses	-	173
Investment tax credits receivable	**86**	40
Prepaid expenses and other assets (note 6(a))	**1,730**	1,084
Total current assets	**116,418**	70,343
Property and equipment (note 4)	**12,959**	13,039
Less accumulated depreciation (note 4)	**(11,199)**	(11,666)
Property and equipment, net of accumulated depreciation (note 4)	**1,760**	1,373
Total assets	**$ 118,178**	$ 71,716
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities (note 10)	**$ 9,328**	$ 3,680
Deferred revenue (note 3)	**5,779**	3,463
Warrants (note 2 and 5)	**5,099**	5,379
Total current liabilities	**20,206**	12,522
Deferred revenue, net of current portion (note 3)	**9,937**	-
Total liabilities	**30,143**	12,522
Stockholders' equity:		
Common shares (note 5)		
Authorized - unlimited number with no par value		
Issued and outstanding: 22,438,169 (December 31, 2013 - 19,048,900)	**290,004**	216,702
Additional paid-in capital	**26,208**	25,343
Deficit	**(205,864)**	(167,027)
Accumulated other comprehensive loss	**(22,313)**	(15,824)
Total stockholders' equity	**88,035**	59,194
Total liabilities and stockholders' equity	**$ 118,178**	$ 71,716

Nature of business and future operations (note 1)
Contingencies and commitments (note 7)
Subsequent event (note 8)

See accompanying notes to the consolidated financial statements.

TEKMIRA PHARMACEUTICALS CORPORATION

Consolidated Statements of Operations and Comprehensive Income (Loss)
(Expressed in thousands of US Dollars, except share and per share amounts)
(Prepared in accordance with US GAAP)

	Year ended December 31		
	2014	2013	2012
Revenue (note 3)			
Collaborations and contracts	**$ 11,738**	$ 10,425	$ 12,105
Licensing fees, milestone and royalty payments	**3,215**	5,040	2,000
Total revenue	**14,953**	15,465	14,105
Expenses			
Research, development, collaborations and contracts	**38,713**	21,458	18,043
General and administrative	**8,683**	5,546	8,141
Depreciation of property and equipment	**529**	613	866
Total expenses	**47,925**	27,617	27,050
Loss from operations	**(32,972)**	(12,152)	(12,945)
Other income (losses)			
Interest income	**853**	540	138
Licensing settlement payment (note 3(c))	-	-	65,000
Licensing settlement legal fees (note 3(c))	-	-	(18,738)
Foreign exchange gains	**4,127**	1,079	25
Warrant issuance costs (note 5)	-	-	(47)
Increase in fair value of warrant liability (note 2)	**(10,383)**	(3,530)	(3,822)
Acquisition costs	**(462)**	-	-
Net income (loss)	**$ (38,837)**	$ (14,063)	$ 29,611
Income (loss) per common share			
Basic	**$ (1.80)**	$ (0.92)	$ 2.16
Diluted	**$ (1.80)**	$ (0.92)	$ 2.07
Weighted average number of common shares			
Basic	**21,603,136**	15,302,680	13,727,925
Diluted	**21,603,136**	15,302,680	14,320,814
Comprehensive income (loss)			
Cumulative translation adjustment	**(6,489)**	(3,135)	474
Comprehensive loss	**$ (45,326)**	$ (17,198)	$ 30,085

See accompanying notes to the consolidated financial statements.

TEKMIRA PHARMACEUTICALS CORPORATION

Consolidated Statement of Stockholders' Equity
(Expressed in thousands of US Dollars, except share and per share amounts)
(Prepared in accordance with US GAAP)

	Number of shares	Share capital	Additional paid-in capital	Deficit	Accumulated other comprehensive loss	Total stockholders' equity
Balance, December 31, 2011	12,148,635	$ 177,039	$ 23,927	$ (182,575)	$ (13,163)	$ 5,228
Stock-based compensation	-	-	982	-	-	982
Issuance of common shares pursuant to exercise of options	38,635	194	(123)	-	-	71
Issuance of common shares pursuant to exercise of warrants	269,485	1,513	-	-	-	1,513
Issuance of common shares in conjunction with the private offering, net of issuance costs of $179,000 and net of initial fair value of warrants of $851,000	1,848,601	3,040	-	-	-	3,040
Currency translation adjustment	-	-	-	-	474	474
Net income	-	-	-	29,611	-	29,611
Balance, December 31, 2012	14,305,356	$ 181,786	$ 24,786	$ (152,964)	$ (12,689)	$ 40,919
Stock-based compensation	-	-	903	-	-	903
Issuance of common shares pursuant to exercise of options	125,596	735	(346)	-	-	389
Issuance of common shares pursuant to exercise of warrants	305,448	2,143	-	-	-	2,143
Issuance of common shares in conjunction with the private offering, net of issuance costs of $2,462,000	4,312,500	32,038	-	-	-	32,038
Currency translation adjustment	-	-	-	-	(3,135)	(3,135)
Net loss	-	-	-	(14,063)	-	(14,063)
Balance, December 31, 2013	19,048,900	$ 216,702	$ 25,343	$ (167,027)	$ (15,824)	$ 59,194
Stock-based compensation	-	-	3,283	-	-	3,283
Issuance of common shares pursuant to exercise of options	648,506	5,034	(2,418)	-	-	2,616
Issuance of common shares pursuant to exercise of warrants	615,763	11,791	-	-	-	11,791
Issuance of common shares in conjunction with the private offering, net of issuance costs of $4,085,000	2,125,000	56,477	-	-	-	56,477
Currency translation adjustment	-	-	-	-	(6,489)	(6,489)
Net loss	-	-	-	(38,837)	-	(38,837)
Balance, December 31, 2014	**22,438,169**	**$ 290,004**	**$ 26,208**	**$ (205,864)**	**$ (22,313)**	**$ 88,035**

See accompanying notes to the consolidated financial statements.

TEKMIRA PHARMACEUTICALS CORPORATION

Consolidated Statements of Cash Flow
(Expressed in thousands of US Dollars, except share and per share amounts)
(Prepared in accordance with US GAAP)

	Year ended December 31		
	2014	2013	2012
OPERATING ACTIVITIES			
Net income (loss) for the period	**$ (38,837)**	$ (14,063)	$ 29,611
Items not involving cash:			
Depreciation of property and equipment	**529**	613	866
Gain on sale of property and equipment	**(80)**	-	-
Stock-based compensation - research, development, collaborations and contract expenses	**2,343**	622	772
Stock-based compensation - general and administrative expenses	**940**	281	210
Unrealized foreign exchange (gains) losses	**(4,218)**	(18)	29
Warrant issuance costs		-	47
Change in fair value of warrant liability	**10,383**	3,530	3,822
Net change in non-cash operating items:			
Accounts receivable	**(1,887)**	889	(190)
Accrued revenue	**(360)**	2,008	(2,188)
Deferred expenses	**167**	231	361
Investment tax credits receivable	**(52)**	(31)	323
Prepaid expenses and other assets	**(773)**	(776)	97
Accounts payable and accrued liabilities	**6,253**	130	(197)
Deferred revenue	**13,171**	(153)	(655)
Net cash provided by (used in) operating activities	**(12,421)**	(6,737)	32,908
INVESTING ACTIVITIES			
Acquisition of investments	**(41,982)**	-	-
Proceeds from sale of property and equipment	**80**	-	3
Acquisition of property and equipment	**(1,056)**	(725)	(15)
Net cash used in investing activities	**(42,958)**	(725)	(12)
FINANCING ACTIVITIES			
Proceeds from issuance of common shares, net of issuance costs	**56,477**	32,038	3,844
Issuance of common shares pursuant to exercise of options	**2,616**	389	71
Issuance of common shares pursuant to exercise of warrants	**1,583**	289	632
Net cash provided by financing activities	**60,676**	32,716	4,547
Effect of foreign exchange rate changes on cash and cash equivalents	**(1,827)**	(3,561)	550
Increase (decrease) in cash and cash equivalents	**3,470**	21,693	37,993
Cash and cash equivalents, beginning of period	**68,717**	47,024	9,031
Cash and cash equivalents, end of period	**$ 72,187**	$ 68,717	$ 47,024
Supplemental cash flow information			
Fair value of warrants exercised on a cashless basis	**$ 116**	$ 1,404	$ 211
Investment tax credits received	**$ -**	$ 10	$ 323
Fair value of warrants issued in conjunction with public offering	**$ -**	$ -	$ 851

See accompanying notes to the consolidated financial statements.

1. Nature of business and future operations

Tekmira Pharmaceuticals Corporation (the "Company") is a Canadian biopharmaceutical business focused on advancing novel RNA interference therapeutics and discovering, developing and commercializing a cure for patients suffering from chronic hepatitis B infection, a disease of the liver caused by hepatitis B virus ("HBV").

The success of the Company is dependent on obtaining the necessary regulatory approvals to bring its products to market and achieve profitable operations. The continuation of the research and development activities and the commercialization of its products are dependent on the Company's ability to successfully complete these activities and to obtain adequate financing through a combination of financing activities and operations. It is not possible to predict either the outcome of future research and development programs or the Company's ability to fund these programs in the future.

2. Significant accounting policies

Basis of presentation

Tekmira Pharmaceuticals Corporation was incorporated on October 6, 2005 as an inactive wholly owned subsidiary of Inex Pharmaceuticals Corporation ("Inex"). Pursuant to a "Plan of Arrangement" effective April 30, 2007 the business and substantially all of the assets and liabilities of Inex were transferred to the Company. The consolidated financial statements for all periods presented herein include the consolidated operations of Inex until April 30, 2007 and the operations of the Company thereafter.

The Company has three wholly-owned subsidiaries: Protiva Biotherapeutics Inc. ("Protiva"), Protiva Biotherapeutics (USA) Inc. ("Protiva USA"), and Protiva Agricultural Development Company Inc. ("PADCo"). Protiva and Protiva USA were acquired on May 30, 2008. PADCo was incorporated on January 9, 2014.

These consolidated financial statements include the accounts of the Company and two of its wholly-owned subsidiaries, Protiva and Protiva USA. All intercompany transactions and balances have been eliminated on consolidation.

The Company records its investment in PADCo using the equity method. The Company has determined that PADCo is a variable interest entity ("VIE") of which it is not the primary beneficiary. The Company is not the primary beneficiary as it does not have the power to make decisions that most significantly affect the economic performance of the VIE nor does the Company have the right to receive benefits or the obligation to absorb losses that in either case could potentially be significant to the VIE. PADCo is described further in note 3.

Comparative Information

Certain information has been reclassified to conform with the financial statement presentation adopted for the current year.

Use of estimates

The preparation of the consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions about future events that affect the reported amounts of assets, liabilities, revenue, expenses, contingent assets and contingent liabilities as at the end or during the reporting period. Actual results could significantly differ from those estimates. Significant areas requiring the use of management estimates relate to recognition of revenue, stock-based compensation, valuation of warrant liability and financial instruments, and the amounts recorded as accrued liabilities.

Cash and cash equivalents

Cash and cash equivalents are all highly liquid instruments with an original maturity of three months or less when purchased. Cash equivalents are recorded at cost plus accrued interest. The carrying value of these cash equivalents approximates their fair value.

Short-term investments

The Company acquired guaranteed investment certificates during the year, which are classified as short-term investments on the balance sheet. Short-term investments have original maturities exceeding three months, and have remaining maturities within twelve months. Short-term investments accrue interest daily based on a fixed interest rate for the term. The carrying value of these cash equivalents are recorded at cost plus accrued interest, which approximates their fair value.

Fair value of financial instruments

We measure certain financial instruments and other items at fair value.

To determine the fair value, we use the fair value hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use to value an asset or liability and are developed based on market data obtained from independent sources. Unobservable inputs are inputs based on assumptions about the factors market participants would use to value an asset or liability. The three levels of inputs that may be used to measure fair value are as follows:

- Level 1 inputs are quoted market prices for identical instruments available in active markets.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly. If the asset or liability has a contractual term, the input must be observable for substantially the full term. An example includes quoted market prices for similar assets or liabilities in active markets.

- Level 3 inputs are unobservable inputs for the asset or liability and will reflect management's assumptions about market assumptions that would be used to price the asset or liability.

Assets and liabilities are classified based on the lowest level of input that is significant to the fair value measurements. Changes in the observability of valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy.

The Company's financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities, warrants and financial instruments.

The carrying values of cash and cash equivalents, short-term investments, accounts receivable and accounts payable and accrued liabilities approximate their fair values due to the immediate or short-term maturity of these financial instruments.

As quoted prices for the warrants are not readily available, the Company has used a Black-Scholes pricing model, as described in note 5, to estimate fair value. These are level 3 inputs as defined above.

The Company used a discounted cash flow model to determine the fair value of the financial instrument related to Monsanto's call option to acquire the equity or all of the assets of PADCo, as described in note 3. The fair value was determined at the date of recognition, and at each reporting date. The initial fair value of the financial instrument was nil, and there has been no change to its fair value as at December 31, 2014. These are level 3 inputs as defined above.

The following tables present information about the Company's assets and liabilities that are measured at fair value on a recurring basis, and indicates the fair value hierarchy of the valuation techniques used to determine such fair value:

	Level 1	Level 2	Level 3	December 31, 2014
Assets				
Cash and cash equivalents	$ 72,187	-	-	$ 72,187
Guaranteed investment certificates	39,974	-	-	39,974
Total	$ 112,161	-	-	$ 112,161
Liabilities				
Warrants	-	-	$ 5,099	$ 5,099
Financial instrument	-	-	-	-
Total	-	-	$ 5,099	$ 5,099

	Level 1	Level 2	Level 3	December 31, 2013
Assets				
Cash and cash equivalents	$ 68,717	-	-	$ 68,717
Liabilities				
Warrants	-	-	$ 5,379	$ 5,379

The following table presents the changes in fair value of the Company's warrants:

	Liability at beginning of the period	Opening liability of warrants issued in the period	Fair value of warrants exercised in the period	Increase in fair value of warrants	Foreign exchange (gain) loss	Liability at end of the period
Year ended December 31, 2012	$ 202	$ 851	$ (881)	$ 3,822	$ 21	$ 4,015
Year ended December 31, 2013	$ 4,015	-	$ (1,854)	$ 3,530	$ (312)	$ 5,379
Year ended December 31, 2014	$ 5,379	-	$ (10,208)	$ 10,383	$ (455)	$ 5,099

Inventory

Inventory includes materials assigned for the manufacture of products for collaborative partners and manufacturing costs for products awaiting acceptance by collaborative partners. Inventory is carried at the lower of cost and net realizable value and measured using first-in-first-out method. The cost of inventories includes all costs of purchase, costs of manufacturing and other costs incurred in bringing the inventories to their present location and condition.

Materials purchased for the Company's own research and development products are not recorded as inventory but are expensed as incurred.

Property and equipment

Property and equipment is recorded at cost less impairment losses, accumulated depreciation, related government grants and investment tax credits. The Company records depreciation using the straight-line method over the estimated useful lives of the capital assets as follows:

	Rate
Laboratory equipment (years)	5
Computer and office equipment (years)	2 - 5
Furniture and fixtures (years)	5

Leasehold improvements are depreciated over their estimated useful lives but in no case longer than the lease term, except where lease renewal is reasonably assured. Assets held under capital leases that do not allow for ownership to pass to the Company are depreciated using the straight-line method over their useful life, not exceeding the lease term. Assets under construction are not depreciated until usage has begun.

Intangible assets

The costs incurred in establishing and maintaining patents for intellectual property developed internally are expensed in the period incurred.

Impairment of long-lived assets

If there is a major event indicating that the carrying value of property and equipment may be impaired then management will perform an impairment test and if the recoverable value, based on undiscounted future cash flows, exceeds carrying value then such assets are written down to their fair values.

Revenue recognition

The Company earns revenue from research and development collaboration and contract services, licensing fees, milestone and royalty payments. Revenues associated with multiple element arrangements are attributed to the various elements based on their relative fair values or are recognized as a single unit of accounting when relative fair values are not determinable. Non-refundable payments received under collaborative research and development agreements are recorded as revenue as services are performed and related expenditures are incurred. Non-refundable upfront license fees from collaborative licensing and development arrangements are recognized as the Company fulfills its obligations related to the various elements within the agreements, in accordance with the contractual arrangements with third parties and the term over which the underlying benefit is being conferred. The Company evaluates new arrangements for any substantive milestones by considering: whether substantive uncertainty exists upon execution of the arrangement; if the event can only be achieved based in whole or in part on the Company's performance, or occurrence of a specific outcome resulting from the Company's performance; any future performance required, and payment is reasonable relative to all deliverables; and, the payment terms in the arrangement. Payments received upon the achievement of substantive milestones are recognized as revenue in their entirety. Payments received upon the occurrence of milestones that are non-substantive are deferred and recognized as revenue over the estimated period of performance applicable to the associated collaborative agreement.

Revenue earned under research and development manufacturing collaborations where the Company bears some or all of the risk of a product manufacturing failure is recognized when the purchaser accepts the product and there are no remaining rights of return.

Revenue earned under research and development collaborations where the Company does not bear any risk of product manufacturing failure is recognized in the period the work is performed. For contracts where the manufacturing amount is specified, revenue is recognized as product is manufactured in proportion to the total amount specified under the contract.

Revenue and expenses under the contract with the United States Government Department of Defense ("DoD") are being recorded using the percentage-of-completion method. Contract progress is based on costs incurred to date. Expenses under the contract are recorded in the Company's consolidated statement of operations and comprehensive income (loss) as they are incurred. Government contract revenues related to expenses incurred under the contract are recorded in the same period as those expenses. Expenses accrued under the contract but not yet invoiced are recorded in the Company's balance sheet as accrued liabilities and accrued revenues. Equipment purchased under the contract is recorded on the Company's balance sheet as deferred expense and deferred revenue and amortized, on a straight-line basis, over the life of the contract.

Cash or other compensation received in advance of meeting the revenue recognition criteria is recorded on the balance sheet as deferred revenue. Revenue meeting recognition criteria but not yet received or receivable is recorded on the balance sheet as accrued revenue.

Leases and lease inducements

Leases entered into are classified as either capital or operating leases. Leases which substantially transfer all benefits and risks of ownership of property to the Company are accounted for as capital leases. At the time a capital lease is entered into, an asset is recorded together with its related long-term obligation to reflect the purchase and financing.

All other leases are accounted for as operating leases wherein rental payments are expensed as incurred.

Lease inducements represent leasehold improvement allowances and reduced or free rent periods and are amortized on a straight-line basis over the term of the lease and are recorded as a reduction of rent expense.

Research and development costs

Research and development costs, including acquired in-process research and development expenses for which there is no alternative future use, are charged as an expense in the period in which they are incurred.

Income or loss per share

Income or loss per share is calculated based on the weighted average number of common shares outstanding. Diluted loss per share does not differ from basic loss per share for the years ended December 31, 2014 and 2013, since the effect of the Company's stock options and warrants is anti-dilutive. Diluted income per share is calculated using the treasury stock method which uses the weighted average number of common shares outstanding during the period and also includes the dilutive effect of potentially issuable common shares from outstanding, in-the-money stock options and warrants.

The following table sets out the computation of basic and diluted net income (loss) per common share:

	For the year ended December 31		
	2014	2013	2012
Numerator:			
Net income (loss)	**$ (38,837)**	$ (14,063)	$ 29,611
Denominator:			
Weighted average number of common shares	**21,603,136**	15,302,680	13,727,925
Effect of dilutive securities:			
Warrants	**-**	-	177,374
Options	**-**	-	415,515
Diluted weighted average number of common shares	**21,603,136**	15,302,680	14,320,814
Basic income (loss) per common share	**$ (1.80)**	$ (0.92)	$ 2.16
Diluted income (loss) per common share	**$ (1.80)**	$ (0.92)	$ 2.07

For the year ended December 31, 2014, potential common shares of 2,221,233 were excluded from the calculation of income per common share because their inclusion would be anti-dilutive (December 31, 2013 – 3,064,767; December 31, 2012 – 1,085,503).

Government grants and refundable investment tax credits

Government grants and tax credits provided for current expenses is included in the determination of income or loss for the year, as a reduction of the expenses to which it relates. Government grants and tax credits towards the acquisition of property and equipment is deducted from the cost of the related property and equipment.

Foreign currency translation and change in reporting currency

The functional currency of the Company is the Canadian dollar. For the Company and its integrated subsidiaries (Protiva and Protiva USA), foreign currency monetary assets and liabilities are translated into Canadian dollars at the rate of exchange prevailing at the balance sheet date. Non-monetary assets and liabilities are translated at historical exchange rates. The previous month's closing rate of exchange is used to translate revenue and expense transactions. Exchange gains and losses are included in income or loss for the period.

The Company is using United States dollars as its reporting currency. All assets and liabilities are translated using the exchange rate at the balance sheet date. Revenues, expenses and other income (losses) are translated using the average rate for the period, except for large transactions, for which the exchange rate on the date of the transaction is used. Equity accounts are translated using the historical rate. As the translation differences from the Company's functional currency of Canadian dollars to the Company's reporting currency of US dollars are unrealized gains and losses, the differences are recorded in other comprehensive income (loss), and do not impact the calculation of Loss/Earnings per Share.

Deferred income taxes

Income taxes are accounted for using the asset and liability method of accounting. Deferred income taxes are recognized for the future income tax consequences attributable to differences between the carrying values of assets and liabilities and their respective income tax bases and for loss carry-forwards. Deferred income tax assets and liabilities are measured using enacted income tax rates expected to apply to taxable income in the periods in which temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities of a change in tax laws or rates is included in earnings in the period that includes the enactment date. When realization of deferred income tax assets does not meet the more-likely-than-not criterion for recognition, a valuation allowance is provided.

Stock-based compensation

The Company grants stock options to employees and directors pursuant to a share incentive plan described in note 5. Compensation expense is recorded for issued stock options using the fair value method with a corresponding increase in additional paid-in capital. Any consideration received on the exercise of stock options is credited to share capital.

The fair value of stock options is measured at the grant date and amortized on a straight-line basis over the vesting period.

Warrants

The Company accounts for the warrants under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. The Company classifies warrants in its consolidated balance sheet as a liability which is revalued at each balance sheet date subsequent to the initial issuance. The Company uses the Black-Scholes pricing model to value the warrants. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment. A small change in the estimates used may cause a relatively large change in the estimated valuation. The estimated volatility of the Company's common stock at the date of issuance, and at each subsequent reporting period, is based on historic fluctuations in the Company's stock price. The risk-free interest rate is based on the Government of Canada rate for bonds with a maturity similar to the expected remaining life of the warrants at the valuation date. The expected life of the warrants is based on the historical pattern of exercises of warrants.

Segment information

The Company operates in a single reporting segment. Substantially all of the Company's revenues to date were earned from customers or collaborators based in the United States. Substantially all of the Company's premises, property and equipment are located in Canada.

Recent accounting pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (FASB) or other standard setting bodies that are adopted by the Company as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued standards that are not yet effective will not have a material impact on our financial position or results of operations upon adoption.

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers (ASC 606). The standard is intended to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP and IFRS by creating a new Topic 606, Revenue from Contracts with Customers. This guidance supersedes the revenue recognition requirements in ASC 605, Revenue Recognition, and supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition – Construction-Type and Production-Type Contracts. The core principle of the accounting standard is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those good or services. The amendments should be applied by either (1) retrospectively to each prior reporting period presented; or (2) retrospectively with the cumulative effect of initially applying this ASU recognized at the date of initial application. The update is effective for annual periods and interim periods within those annual periods, beginning after December 15, 2016, which for the Company means January 1, 2017. Early application is not permitted. The extent of the impact of adoption has not yet been determined.

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements – Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern. The update is intended to provide guidance in GAAP about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. Under amendments to GAAP, the assessment period is within one year after the date that the financial statements are issued (or available to be issued). The amendments are effective for the annual period ending after December 15, 2016, which for the Company means January 1, 2017, and for annual periods and interim periods thereafter. Early application is permitted. The Company does not plan to early adopt this update. The extent on the impact of this adoption has not yet been determined.

3. Collaborations, contracts and licensing agreements

The following tables set forth revenue recognized under collaborations, contracts and licensing agreements:

	Year ended December 31		
	2014	2013	2012
Collaborations and contracts			
DoD (a)	**$ 8,407**	$ 9,806	$ 11,536
Monsanto (b)	**1,080**	-	-
Alnylam (c)	**-**	-	10
BMS (d)	**1,741**	526	440
Dicerna (e)	**510**	-	-
Other RNAi collaborators (g)	**-**	93	119
Total research and development collaborations and contracts	**11,738**	10,425	12,105
Licensing fees, milestone and royalty payments			
Monsanto licensing fees and milestone payments (b)	**2,744**	-	-
Alnylam milestone payments (c)	**150**	5,000	1,000
Dicerna licensing fee (e)	**131**	-	-
Spectrum royalty payments (f)	**190**	40	1,000
Total licensing fees, milestone and royalty payments	**3,215**	5,040	2,000
Total revenue	**$ 14,953**	$ 15,465	$ 14,105

The following table sets forth deferred collaborations and contracts revenue:

	December 31, 2014	December 31, 2013
DoD (a)	**$ 313**	$ 1,655
Monsanto current portion (b)	**4,245**	-
BMS current portion (d)	**-**	1,808
Dicerna current portion (e)	**1,221**	
Deferred revenue, current portion	**5,779**	3,463
Monsanto long-term portion (b)	**8,666**	-
Dicerna long-term portion (e)	**1,271**	-
Total deferred revenue	**$ 15,716**	$ 3,463

(a) Contract with United States Government's Department of Defense ("DoD") to develop TKM-Ebola

On July 14, 2010, the Company signed a contract with the DoD to advance TKM-Ebola, an RNAi therapeutic utilizing the Company's lipid nanoparticle technology to treat Ebola virus infection.

In the initial phase of the contract, funded as part of the Transformational Medical Technologies program, the Company was eligible to receive up to $34,700,000. This initial funding is for the development of TKM-Ebola including completion of preclinical development, filing an Investigational New Drug application with the United States Food and Drug Administration ("FDA") and completing a Phase 1 human safety clinical trial. On May 8, 2013, the Company announced that the contract had been modified to support development plans that integrate recent advancements in lipid nanoparticle ("LNP") formulation and manufacturing technologies. The contract modification increased the stage one targeted funding by an additional $6,970,000. On April 22, 2014, the Company and the DoD signed a contract modification to further increase the stage one targeted funding by $2,100,000 to $43,819,000. The additional funding is to compensate the Company for unrecovered overheads related to the temporary stop-work period that occurred in 2012 and to provide additional overhead funding should it be required.

The DoD has the option of extending the contract beyond the initial funding period to support the advancement of TKM-Ebola through to the completion of clinical development and FDA approval. Based on the contract's budget this would provide the Company with up to $140,000,000 in funding for the entire program. In December 2014, the DoD exercised an option valued at $7,000,000 to manufacture TKM-Ebola-Guinea, developed by the Company targeting the Ebola-Guinea strain responsible for the current outbreak in West Africa.

Under the contract, the Company is reimbursed for costs incurred, including an allocation of overhead costs, and is paid an incentive fee. At the beginning of the fiscal year the Company estimates its labour and overhead rates for the year ahead. At the end of the year the actual labour and overhead rates are calculated and revenue is adjusted accordingly. The Company's actual labour and overhead rates will differ from its estimated rates based on actual costs incurred and the proportion of the Company's efforts on contracts and internal products versus indirect activities. Within minimum and maximum collars, the amount of incentive fee the Company can earn under the contract varies based on costs incurred versus budgeted costs. During the contractual period, incentive fee revenue and total costs are impacted by management's estimate and judgments which are continuously reviewed and adjusted as necessary using the cumulative catch-up method. At December 31, 2012, the Company was not able to make a reliable estimate of the final contract costs, and only the minimum incentive fee achievable and earned was recognized. In August 2014, Public Works and Government Services Canada, on behalf of the DoD, completed the audit of the Company's labour and overhead rates for 2011 and 2012, and no significant differences were adjusted from management's estimate of the rates. For the years ended December 31, 2013 and 2014, the Company believes it can reliably estimate the final contract costs so has recognized the portion of expected incentive fee which has been earned to date.

(b) Option and Services Agreements with Monsanto Company ("Monsanto")

On January 13, 2014, the Company and Monsanto signed an Option Agreement and a Services Agreement (together, the "Agreements"). Under the Agreements, Monsanto has an option to obtain a license to use the Company's proprietary delivery technology and related intellectual property for use in agriculture. Over the option period, which is expected to be approximately four years, the Company will provide lipid formulations for Monsanto's research and development activities, and Monsanto will make certain payments to the Company to maintain its option rights. The maximum potential value of the transaction is $86,200,000 following the successful completion of milestones. As at December 31, 2014, the Company had received $17,500,000 in near term payments as outlined in the terms of the Agreements. The amounts received relate to research services and use of the Company's technology over the option period, and are recognized as revenue on a straight-line basis over the option period.

Under the Agreements, the Company has established a wholly-owned subsidiary, PADCo. The Company has determined that PADCo is a variable interest entity ("VIE"); however, Monsanto is the primary beneficiary of the arrangement. PADCo was established to perform research and development activities, which have been funded by Monsanto in return for a call option to acquire the equity or all of the assets of PADCo. At any time during the option period, Monsanto may choose to exercise its option, in which case Monsanto would pay the Company an option exercise fee and would receive a worldwide, exclusive right to use the Company's proprietary delivery technology in the field of agriculture. Monsanto may elect to terminate this option at their discretion. The Company retains all rights to therapeutics uses of all current intellectual property and intellectual property developed under the Agreements. The Company's initial investment is not significant, and the Company has no implied or unfunded commitments and the maximum exposure to loss is limited to the amount of investment in the entity. The Company has included its investment in PADCo in other assets. There were no significant assets or liabilities for PADCo as at December 31, 2014. There was no equity income or loss with respect to PADCo recorded for the period ended December 31, 2014.

(c) License and collaboration with Alnylam Pharmaceuticals, Inc. ("Alnylam")

License and Collaboration Agreement with Alnylam through Tekmira

On January 8, 2007, the Company entered into a licensing and collaboration agreement with Alnylam ("Alnylam License and Collaboration"), which was amended and restated in May 2008, giving them an exclusive license to certain of the Company's historical lipid nanoparticle intellectual property for the discovery, development, and commercialization of ribonucleic acid interference ("RNAi") therapeutics.

The Alnylam License and Collaboration was replaced by a new license agreement as part of the settlement, which is discussed below.

Cross-License with Alnylam acquired through Protiva

As a result of the acquisition of Protiva on May 30, 2008, the Company acquired a Cross-License Agreement between Protiva and Alnylam (the "Alnylam Cross-License"). Alnylam was granted a non-exclusive license to the Protiva intellectual property.

The Alnylam Cross-License was replaced by a new license agreement as part of the settlement, which is discussed below.

Manufacturing agreement with Alnylam

Under a manufacturing agreement with Alnylam (the "Alnylam Manufacturing Agreement") effective January 1, 2009, the Company was the exclusive manufacturer of any products required by Alnylam through to the end of Phase 2 clinical trials that utilize the Company's technology. Alnylam was paying the Company for the provision of staff and for external costs incurred. Time charged to Alnylam was at a fixed rate and under the Alnylam Manufacturing Agreement there was a contractual minimum for the provision of staff of $11,200,000 over the three year period ending December 31, 2011.

The Alnylam Manufacturing Agreement was terminated as part of the settlement which is discussed below.

Settlement of litigation with Alnylam and Acuitas Therapeutics Inc. ("Acuitas", formerly AlCana Technologies Inc.)

On March 16, 2011 the Company filed a complaint against Alnylam. On November 12, 2012, the Company entered into an agreement to settle all litigation between the Company and Alnylam and Acuitas (the "Settlement") and also entered into a new licensing agreement with Alnylam that replaces all earlier licensing, cross-licensing, collaboration, and manufacturing agreements. The Company entered into a separate cross license agreement with Acuitas which includes milestone and royalty payments and Acuitas has agreed not to compete in the RNAi field for five years. In conjunction with the Settlement, the Company paid Acuitas $300,000. The Company paid a further $1,500,000 upon the execution of the cross license agreement with Acuitas, in the year ended December 31, 2013.

As a result of the new Alnylam license agreement, on November 26, 2012, the Company received $65,000,000 in cash from Alnylam. This includes $30,000,000 associated with the termination of the manufacturing agreement and $35,000,000 associated with the termination of the previous license agreements, as well as a modification of the milestone and royalty schedules associated with Alnylam's ALN-VSP, ALN-PCS, and ALN-TTR programs. Under the settlement, Alnylam received license rights to the Company's patents that were filed, or that claim priority to a patent that was filed, before April 15, 2010. Alnylam does not have rights to the Company's patents filed after April 15, 2010 unless they claim priority to a patent filed before that date. In addition, Alnylam has transferred all agreed upon patents and patent applications related to lipid nanoparticle ("LNP") technology for the systemic delivery of RNAi therapeutic products, including the MC3 lipid family, to the Company, who will own and control prosecution of this intellectual property portfolio. The Company is the only entity able to sublicense its LNP intellectual property in future platform-type relationships. Alnylam has a license to use the Company's intellectual property to develop and commercialize products and may only grant access to the Company's LNP technology to its partners if it is part of a product sublicense. Alnylam will pay the Company milestones and royalties as Alnylam's LNP-enabled products are developed and commercialized.

The new licensing agreement with Alnylam also grants the Company intellectual property rights to develop its own proprietary RNAi therapeutics. Alnylam has granted the Company a worldwide license for the discovery, development and commercialization of RNAi products directed to thirteen gene targets – three exclusive and ten non-exclusive licenses – provided that they have not been committed by Alnylam to a third party or are not otherwise unavailable as a result of the exercise of a right of first refusal held by a third party or are part of an ongoing or planned development program of Alnylam. Licenses for five of the ten non-exclusive targets – ApoB, PLK1, Ebola, WEE1, and CSN5 – have already been granted, along with an additional license for ALDH2, which has been granted on an exclusive basis. In consideration for this license, the Company has agreed to pay single-digit royalties to Alnylam on product sales and have milestone obligations of up to $8,500,000 on the non-exclusive licenses (with the exception of TKM-Ebola, which has no milestone obligations). Alnylam no longer has "opt-in" rights to the Company's lead oncology product, TKM-PLK1, so the Company now holds all development and commercialization rights related TKM-PLK1. The Company will have no milestone obligations on the three exclusive licenses. As a result of the settlement of the litigation between the Company and Alnylam, $18,737,966 in a contingent obligation payment to Orrick, Herrington and Sutcliffe LLP ("Orrick"), lead legal counsel for the lawsuit against Alnylam and Acuitas, was paid out on December 10, 2012.

Milestone receipts and payments

In June 2012 the Company earned a $1,000,000 milestone from Alnylam in respect of the initiation of Alnylam's ALN-TTR02 Phase 2 human clinical trial.

In November 2013, Alnylam initiated a Phase III trial with ALN-TTR02, also known as patisiran, and the associated $5,000,000 development milestone was paid to the Company in December 2013.

In November 2013, the Company initiated Phase I/II clinical trial for TKM-PLK1, resulting in a milestone payment of $375,000 to Alnylam.

Arbitration with Alnylam and Ascletis Pharmaceuticals (Hangzhou) Co. Ltd. ("Ascletis")

On June 21, 2013, the Company transferred manufacturing process technology to Ascletis to enable them to produce ALN-VSP, a product candidate licensed to them by Alnylam. The Company believes that under its licensing agreement with Alnylam, the technology transfer to Ascletis triggers a $5,000,000 milestone obligation from Alnylam to the Company. However, Alnylam has demanded a declaration that the Company has not yet met its milestone obligations. The Company disputes Alnylam's position. To remedy this dispute, the Company and Alnylam have commenced arbitration proceedings as provided for under the agreement. The hearing date for this arbitration is currently set for the second week in May, 2015. The Company has not recorded any revenue in respect of this milestone.

(d) Bristol-Myers Squibb ("BMS") collaboration

On May 10, 2010 the Company announced the expansion of its research collaboration with BMS. Under the new agreement, BMS uses small interfering RNA ("siRNA") molecules formulated by the Company in LNP technology to silence target genes of interest. BMS is conducting the preclinical work to validate the function of certain genes and share the data with the Company. The Company can use the preclinical data to develop RNAi therapeutic drugs against the therapeutic targets of interest. The Company received $3,000,000 from BMS concurrent with the signing of the agreement and recorded the amount as deferred revenue. The Company is required to provide a pre-determined number of LNP batches over the four-year agreement. BMS has a first right to negotiate a licensing agreement on certain RNAi products developed by the Company that evolve from BMS validated gene targets.

Revenue from the May 10, 2010 agreement with BMS is being recognized as the Company produces the related LNP batches.

As at December 31, 2013, the Company and BMS intended to extend the agreement's end date from May 10, 2014 to December 31, 2014. Extending the agreement would have given BMS more time to order LNP batches. The offer of an extension in December 2013 resulted in a cumulative revenue adjustment recorded for the year ended December 31, 2013. In August 2014, the Company received notification that the extension would not occur. As such, the agreement expired and both companies' obligations under the agreement ended. Revenue earned for the year-ended December 31, 2014 relates to batches shipped to BMS during the period and the release of any remaining deferred revenue balance resulting from the expiration of the agreement.

(e) License and Development and Supply Agreement with Dicerna Pharmaceuticals, Inc. ("Dicerna")

On November 16, 2014, the Company signed a License Agreement and a Development and Supply Agreement (together, the "Agreements") with Dicerna to development, manufacture, and commercialization of products directed to treatment of Primary Hyperoxaluria 1 ("PH1"), In consideration for the rights granted under the Agreements, Dicerna paid the Company an upfront cash payment of $2,500,000. The Company is also entitled to receive payments from Dicerna on the manufacturing and services provided, as well as further payments with the achievement of development and regulatory milestones of $22,000,000 in aggregate, and potential commercial royalties. Further, under the Agreements, a joint development committee has been established to provide guidance and direction on the progression of the collaboration.

The Company determined the deliverables under the Agreements included the rights granted, participation in the joint development committee, materials manufactured and other services provided, as directed under the joint development committee. The Company has determined that manufacturing services and other services provided have standalone value, as a separate statement of work is executed and invoiced for each manufacturing or service work order. The relative fair values are determined as a batch price or fee is estimated upon the execution of each work order, with actual expenditures charged at comparable market rates with embedded margins on each work order. Manufacturing work orders are invoiced at the time of execution of the work order, at the initiation of manufacture, and at the release of materials. The Company has deferred the recognition of revenue on all cash payments received for manufacturing work orders. Revenue from service work orders is recognized as the services are performed. The license and participation in the joint development committee have been determined by the Company to not have standalone value due to the uniqueness of the subject matter under the Agreements. Therefore, these deliverables are treated as one unit of accounting and recognized as revenue over the performance period, which the Company has estimated to be approximately 28 months as at December 31, 2014.

The Company believes the development and regulatory milestones are substantive, due to the existence of substantive uncertainty upon the execution of the arrangement, and that the achievement of the development and regulatory events are based in part on the Company's performance and the occurrence of a specific outcome resulting from performance. The Company has not received any milestone payments to date.

(f) Agreements with Spectrum Pharmaceuticals, Inc. ("Spectrum")

On May 6, 2006, the Company signed a number of agreements with Talon Therapeutics, Inc. ("Talon", formerly Hana Biosciences, Inc.) including the grant of worldwide licenses (the "Talon License Agreement") for three of the Company's chemotherapy products, Marqibo®, Alocrest TM (Optisomal Vinorelbine) and Brakiva TM (Optisomal Topotecan).

On August 9, 2012, the Company announced that Talon had received accelerated approval for Marqibo from the FDA for the treatment of adult patients with Philadelphia chromosome negative acute lymphoblastic leukemia in second or greater relapse or whose disease has progressed following two or more anti-leukemia therapies. Marqibo is a liposomal formulation of the chemotherapy drug vincristine. In the year ended December 31, 2012, the Company received a milestone of $1,000,000 based on the FDA's approval of Marqibo and will receive royalty payments based on Marqibo's commercial sales. There are no further milestones related to Marqibo but the Company is eligible to receive total milestone payments of up to $18,000,000 on Alocrest and Brakiva.

Talon was acquired by Spectrum in July 2013. The acquisition did not affect the terms of the license between Talon and the Company.

On September 3, 2013, Spectrum announced that they had shipped the first commercial orders of Marqibo. In the year ended December 31, 2014, the Company recorded $190,000 in Marqibo royalty revenue (2013 - $40,000, 2012 - $nil). In the year ended December 31, 2014, the Company accrued $5,000 in royalties due to TPC in respect of the Marqibo royalty earned by the Company (see note 8).

(g) Other RNAi collaborators

The Company had active research agreements with a number of other RNAi collaborators.

4. Property and equipment

December 31, 2014		Cost	Accumulated depreciation		Net book value
Lab equipment	$	5,021	(4,451)	$	570
Leashold improvements		5,281	(4,796)		485
Computer hardware and software		2,293	(1,588)		705
Furniture and fixtures		364	(364)		-
	$	12,959	(11,199)	$	1,760

December 31, 2013	Cost	Accumulated depreciation	Net book value
Lab equipment	$ 4,886	(4,679)	$ 207
Leashold improvements	5,592	(5,001)	591
Computer hardware and software	1,992	(1,590)	402
Furniture and fixtures	396	(396)	-
Assets under construction	173	-	173
	$ 13,039	(11,666)	$ 1,373

As at December 31, 2014, all of the Company's property and equipment are currently in use and no impairment has been recorded.

5. Share capital

(a) Financing

On February 29, 2012, the Company completed a private placement offering of 1,848,601 units at a price of $2.20 (C$2.20) each for total gross proceeds, before expenses, of $4,070,000. Each unit consists of one common share and one half of one common share purchase warrant. Each whole warrant entitles the holder to acquire one common share at a price of C$2.60. The warrants expire on February 28, 2017. After paying brokerage fees and other unit issue costs, the offering generated net cash of $3,844,000. The total unit issuance cost of $226,000 has been allocated, on a pro-rata basis, as $179,000 to the shares and $47,000 to the warrants and recorded, respectively, to share capital and warrant issuance costs in the consolidated statement of operations and comprehensive income (loss).

On the date of issuance, the Black-Scholes aggregate value of the 924,302 warrants was $851,000 based on an assumed risk-free interest rate of 1.44%, volatility of 40%, a zero dividend yield and an expected life of 5 years. The fair value of the warrants at issuance was initially recorded as a liability with the residual amount of proceeds from the private placement being allocated to share capital.

On October 22, 2013, the Company completed an underwritten public offering of 3,750,000 common shares, at a price of $8.00 per share, representing gross proceeds of $30,000,000. On November 1, 2013, the offering's underwriter completed the exercise of its over-allotment option to purchase a further 562,500 shares at $8.00 bringing the aggregate financing gross proceeds to $34,500,000. The cost of the financing, including commissions and professional fees, was $2,462,000, resulting in net proceeds of $32,038,000.

On March 26, 2014, the Company completed an underwritten public offering of 2,125,000 common shares, at a price of $28.50 per share, representing gross proceeds of $60,562,000. The Company also granted the underwriters a 30-day option to purchase an additional 318,750 shares for an additional $9,084,000 to cover any over-allotments. The underwriters did not exercise the option. The cost of financing, including commissions and professional fees, was $4,085,000, resulting in net proceeds of $56,477,000.

(b) Authorized share capital

The Company's authorized share capital consists of an unlimited number of common and preferred shares without par value.

(c) Warrants to purchase common shares

During the year ended December 31, 2014, there were 610,478 warrants exercised for $1,583,000 in cash (December 31, 2013 – 105,683 warrants for $289,000) and 6,000 warrants exercised using the cashless exercise provision in return for 5,285 common shares (December 31, 2013 – 468,000 warrants for 199,765 common shares).

The following table summarizes the Company's warrant activity for the years ended December 31, 2014 and 2013:

	Common shares purchasable upon exercise of warrants	Weighted average exercise price (C$)	Weighted average exercise price (US$)	Range of exercise prices (C$)	Range of exercise prices (US$)	Weighted average remaining contractual life (years)	Aggregate intrinsic value (C$)	Aggregate intrinsic value (US$)
Balance, December 31, 2012	1,588,411	$ 3.00	$ 3.02	$2.50 - $3.35	$2.51 - $3.37	3.8	$ 3,141	$ 3,157
Exercised	(573,683)	$ 3.19	$ 3.00	$2.60 - $3.35	$2.44 - $3.15			
Balance, December 31, 2013	1,014,728	$ 2.90	$ 2.72	$2.60 - $3.35	$2.44 - $3.15	2.7	$ 5,635	$ 5,298
Exercised	(616,478)	$ 3.09	$ 2.80	$2.60 - $3.35	$2.35 - $3.03			
Balance, December 31, 2014	398,250	$ 2.95	$ 2.67	$2.60 - $3.35	$2.35 - $3.03	1.8	$ 5,902	$ 5,343

The aggregate intrinsic value in the table above is calculated based on the difference between the exercise price of the warrants and the quoted price of the Company's common stock as of the reporting date.

All of the Company's warrants were exercisable as of December 31, 2014.

The weighted average Black-Scholes option-pricing assumptions and the resultant fair values are as follows for warrants outstanding at December 31, 2014 and 2013 are as follows:

	Year ended December 31	
	2014	2013
Dividend yield	**0.00%**	0.00%
Expected volatility	**85.22%**	47.03%
Risk-free interest rate	**1.00%**	1.13%
Expected average term (years)	**0.5**	1.6
Fair value of warrants outstanding	**$ 12.80**	$ 5.30
Aggregate fair value of warrants outstanding	**$ 5,099**	$ 5,379
Number of warrants outstanding	**398,250**	1,014,728

The value of the Company's warrants is particularly sensitive to changes in the Company's share price and the estimated rate of share price volatility.

(e) Stock-based compensation

The Company has five share-based compensation plans; the "2007 Plan", the "2011 Plan", two "Designated Plans" (together, the "Tekmira Plans"), and the "Protiva Option Plan".

On June 22, 2011, the shareholders of the Company approved an omnibus stock-based compensation plan (the "2011 Plan") and a 273,889 increase in the number of stock-based compensation awards that the Company is permitted to issue. The Company's pre-existing 2007 Plan was limited to the granting of stock options as equity incentive awards whereas the 2011 Plan also allows for the issuance of tandem stock appreciation rights, restricted stock units and deferred stock units (collectively, and including options, referred to as "Awards"). The 2011 Plan replaces the 2007 Plan. The 2007 Plan will continue to govern the options granted thereunder. No further options will be granted under the Company's 2007 Plan.

Under the Company's 2007 Plan the Board of Directors granted options to employees, directors and consultants of the Company. The exercise price of the options was determined by the Company's Board of Directors but was always at least equal to the closing market price of the common shares on the day preceding the date of grant and the term of options granted did not exceed 10 years. The options granted generally vested over three years for employees and immediately for directors.

Under the Company's 2011 Plan the Board of Directors may grant options, and other types of Awards, to employees, directors and consultants of the Company. The exercise price of the options is determined by the Company's Board of Directors but will be at least equal to the closing market price of the common shares on the day preceding the date of grant and the term may not exceed 10 years. Options granted generally vest over three years for employees and immediately for directors.

Additionally, the Company granted a total of 200,000 options in 2013 to two executive officers in conjunction with their new appointments as executive officers. These options were granted in accordance with the policies of the Toronto Stock Exchange and pursuant to newly designated share compensation plans (the "Designated Plans"). The Designated Plans are governed by substantially the same terms as the 2011 Plan. Hereafter, information on options governed by the 2007 Plan, the 2011 Plan, and the Designated Plans is presented on a consolidated basis as the terms of the four plans are similar. Information on the Protiva Option Plan is presented separately.

At the Company's annual general and special meeting of shareholders on June 20, 2012 and May 8, 2014, the shareholders of the Company approved respectively, a 550,726 and a 800,000 increase in the number of stock-based compensation awards that the Company is permitted to issue.

Stock option activity for the Tekmira Plans

	Number of optioned common shares	Weighted average exercise price (C$)	Weighted average exercise price (US$)	Aggregate intrinsic value (C$)	Aggregate intrinsic value (US$)
Balance, December 31, 2011	1,413,318	$ 5.32	$ 5.38	$ 2	$ 2
Options granted	326,300	$ 4.16	$ 4.16		
Options exercised	(28,417)	$ 2.34	$ 2.34	$ 82	$ 82
Options forfeited, cancelled or expired	(62,355)	$ 21.27	$ 21.29		
Balance, December 31, 2012	1,648,846	$ 4.54	$ 4.54	$ 2,300	$ 2,301
Options granted	270,250	$ 7.52	$ 7.30		
Options exercised	(124,246)	$ 3.22	$ 3.13	$ 551	$ 535
Options forfeited, cancelled or expired	(64,085)	$ 21.87	$ 21.23		
Balance, December 31, 2013	1,730,765	$ 4.45	$ 4.32	$ 7,030	$ 6,826
Options granted	431,125	$ 13.63	$ 12.34		
Options exercised	(622,752)	$ 4.62	$ 4.18	$ 7,650	$ 6,926
Options forfeited, cancelled or expired	(9,000)	$ 8.20	$ 7.42		
Balance, December 31, 2014	1,530,138	$ 6.95	$ 6.29	$ 16,573	$ 15,004

Options under the Tekmira Plans expire at various dates from July 25, 2015 to December 14, 2024.

The following table summarizes information pertaining to stock options outstanding at December 31, 2014 under the Tekmira Plans:

	Options outstanding December 31, 2014				Options exercisable December 31, 2014		
Range of Exercise prices	Number of options outstanding	Weighted average remaining contractual life (years)	Weighted average exercise price (C$)	Weighted average exercise price (US$)	Number of options exercisable	Weighted average exercise price (C$)	Weighted average exercise price (US$)
$1.50 to $1.90	184,325	5.9	$ 1.71	$ 1.55	184,325	$ 1.71	$ 1.55
$2.10 to $2.60	189,299	6.7	$ 2.32	$ 2.10	169,404	$ 2.35	$ 2.13
$3.00 to $3.85	160,650	3.8	$ 3.57	$ 3.23	160,450	$ 3.57	$ 3.23
$4.49 to $6.50	411,356	6.4	$ 5.21	$ 4.72	323,052	$ 5.20	$ 4.71
$7.05 to $10.40	252,923	8.6	$ 8.78	$ 7.95	117,548	$ 8.81	$ 7.98
$11.60 to $13.26	156,085	9.1	$ 12.89	$ 11.67	76,879	$ 12.68	$ 11.48
$14.80 to $18.54	175,500	9.2	$ 16.67	$ 15.09	57,250	$ 16.45	$ 14.89
$1.50 to $18.54	1,530,138	7.1	$ 6.95	$ 6.29	1,088,908	$ 5.43	$ 4.92

At December 31, 2014, there were 1,088,908 options exercisable (December 31, 2013 – 1,377,091; December 31, 2012 - 1,315,155) with a weighted average exercise price of $4.92 (C$5.43). The weighted average remaining contractual life of exercisable options as at December 31, 2014 was 6.38 years. The aggregate intrinsic value of in-the-money options exercisable at December 31, 2014 was $11,578,000.

A summary of the Company's non-vested stock option activity and related information for the year ended December 31, 2014 is as follows:

	Number of optioned common shares	Weighted average fair value (C$)	Weighted average fair value (US$)
Non-vested at December 31, 2013	353,675	$ 5.44	$ 5.28
Options granted	431,125	$ 13.63	12.34
Options vested	(334,994)	$ 8.35	7.56
Non-vested options forfeited	(8,576)	$ 6.89	6.24
Non-vested at December 31, 2014	441,230	$ 9.30	$ 8.42

The weighted average remaining contractual life for options expected to vest at December 31, 2014 was 8.8 years and the weighted average exercise price for these options was $9.67 (C$10.68) per share.

The aggregate intrinsic value of options expected to vest as at December 31, 2014 was $2,626,000 (December 31, 2013 - $943,000; December 31, 2012 - $451,000).

The total fair value of options that vested during the year ended December 31, 2014 was $2,505,000 (2013 - $955,000; 2012 - $1,071,000).

Valuation assumptions for the Tekmira Plans

The fair value of stock options at date of grant, based on the following assumptions, was estimated using the Black-Scholes option-pricing model. Assumptions on the dividend yield are based on the fact that the Company has never paid cash dividends and has no present intention to pay cash dividends. Assumptions about the Company's expected stock-price volatility are based on the historical volatility of the Company's publicly traded stock. The risk-free interest rate used for each grant is equal to the zero coupon rate for instruments with a similar expected life. Expected life assumptions are based on the Company's historical data. The Company currently expects, based on an analysis of its historical forfeitures, approximately 97% of its options issued will ultimately vest, and has applied a forfeiture rate of 3% to all unvested options held as of December 31, 2014 (December 31, 2013 – 2%; December 31, 2012 – 2%). The Company will record additional expense if the actual forfeitures are lower than estimated and will record a recovery of prior expense if the actual forfeitures are higher than estimated. The weighted average option pricing assumptions and the resultant fair values are as follows:

	Year ended December 31		
	2014	2013	2012
Dividend yield	**0.00%**	0.00%	0.00%
Expected volatility	**101.08%**	111.61%	120.40%
Risk-free interest rate	**2.25%**	2.39%	1.56%
Expected average option term (years)	**8.8**	9.6	8.2
Fair value of options granted (C$)	**$ 11.68**	$ 6.96	$ 3.83

Stock-based compensation expense for the Tekmira Plans

An expense for stock-based compensation for options awarded to employees and calculated in accordance with the fair value method has been recorded in the consolidated statement of operations and comprehensive income (loss) as follows:

	Year ended December 31		
	2014	2013	2012
Research, development, collaborations and contracts expenses	**$ 2,343**	$ 622	$ 772
General and administrative expenses	**940**	281	210
Total	**$ 3,283**	$ 903	$ 982

At December 31, 2014, there remains $2,533,000 of unearned compensation expense related to unvested employee stock options to be recognized as expense over a weighted-average period of approximately 18 months.

Protiva Option Plan

On May 30, 2008, as a condition of the acquisition of Protiva Biotherapeutics Inc., a total of 350,457 common shares of the Company were reserved for the exercise of 519,073 Protiva share options ("Protiva Options"). The Protiva Options have an exercise price of C$0.30, were fully vested and exercisable as of May 30, 2008. As at December 31, 2014, the outstanding options expire at various dates from September 12, 2015 to March 1, 2018 and upon exercise each option will be converted into approximately 0.6752 shares of the Company (the same ratio at which Protiva common shares were exchanged for Company common shares at completion of the acquisition of Protiva). The Protiva Options are not part of the Tekmira Plans and the Company is not permitted to grant any further Protiva Options.

The following table sets forth outstanding options under the Protiva Option Plan:

	Number of Protiva Options	Equivalent number of Company common shares	Weighted average exercise price (C$)	Weighted average exercise price (US$)
Balance, December 31, 2011	491,020	331,517	$ 0.30	0.30
Options exercised	(15,135)	(10,218)	0.30	0.30
Options forfeited, cancelled or expired	-	-	-	-
Balance, December 31, 2012	475,885	321,299	$ 0.30	$ 0.30
Options exercised	(2,000)	(1,350)	0.30	0.29
Options forfeited, cancelled or expired	(1,000)	(675)	0.30	$ 0.29
Balance, December 31, 2013	472,885	319,274	$ 0.30	$ 0.29
Options exercised	(38,145)	(25,754)	0.30	0.27
Options forfeited, cancelled or expired	(1,000)	(675)	0.30	0.27
Balance, December 31, 2014	433,740	292,845	$ 0.30	0.27

The weighted average remaining contractual life of exercisable Protiva Options as at December 31, 2014 was 1.0 years.

The aggregate intrinsic value of Protiva Options outstanding at December 31, 2014 was $4,374,000. The intrinsic value of Protiva Options exercised in the year ended December 31, 2014 was $378,000 (2013 - $8,000; 2012 - $19,000).

Awards outstanding and available for issuance

Combining all of the Company's share-based compensation plans, at December 31, 2014, the Company has 1,822,983 options outstanding and a further 785,398 Awards available for issuance.

6. Government grants and refundable investment tax credits

Government grants and refundable investment tax credits have been recorded as a reduction in research and development expenses. Materials manufactured but not yet accepted by the third party

(a) Government grants

On December 22, 2014, the Company entered into a Manufacturing and Clinical Trial Agreement with the University of Oxford to provide the new TKM-Ebola-Guinea therapeutic product for clinical studies in West Africa. The University of Oxford is the representative of the International Severe Acute Respiratory and Emerging Infection Consortium (ISARIC), who will be conducting clinical studies of TKM-Ebola-Guinea in Ebola virus infected patients, with funding provided by the Wellcome Trust. Manufacture of TKM-Ebola-Guinea has been completed and the manufacturing costs are included in other assets as at December 31, 2014. In January 2015, the Company received $1,098,000 from ISARIC, and is close to finalization of a suitable clinical protocol for the studies to commence.

Government grants for the year ended December 31, 2014 include $172,000 in funding from the U.S. National Institutes of Health (2013 - $69,000).

(b) Refundable investment tax credits

The Company's estimated claim for refundable Scientific Research and Experimental Development investment tax credits for the year ended December 31, 2014 is $52,000 (2013 - $43,000).

7. Income taxes

Income tax (recovery) expense varies from the amounts that would be computed by applying the combined Canadian federal and provincial income tax rate of 17.8% (year ended December 2013 – 17.8%; year ended December 31, 2012 – 17.5%) to the loss before income taxes as shown in the following tables:

	Year ended December 31		
	2014	2013	2012
Computed taxes (recoveries) at Canadian federal and provincial tax rates	**$ (6,893)**	$ (2,380)	$ 7,486
Differences due to change in enacted tax rates	**-**	(6)	781
Difference due to change in tax rate on opening deferred taxes	**-**	-	2,720
Permanent and other differences	**1,342**	1,150	(1,195)
Change in valuation allowance - other	**5,551**	1,236	798
Change in valuation allowance - utilization of investment tax credits	**-**	-	(10,590)
Income tax (recovery) expense	**$ -**	**$ -**	$ -

As at December 31, 2014, the Company has investment tax credits available to reduce Canadian federal income taxes of $7,866,000 (December 31, 2013 - $6,859,000) and provincial income taxes of $3,401,000 (December 31, 2013 - $2,432,000) and expiring between 2015 and 2034.

At December 31, 2014, the Company has scientific research and experimental development expenditures of $49,906,852 (December 31, 2013 - $49,907,000) available for indefinite carry-forward and $25,301,000 (December 31, 2013 - $24,527,000) of net operating losses due to expire between 2028 and 2033 and which can be used to offset future taxable income in Canada.

On November 23, 2011, the Company was registered as a corporation under the Business Activity Act in the province of British Columbia. Under this program, provincial corporation tax charged on foreign income earned from the Company's patents will be eligible for a 75% tax refund up to a maximum of C$8,000,000. Significant components of the Company's deferred tax assets are shown below:

	Year ended December 31	
	2014	**2013**
Deferred tax assets:		
Non-capital loss carryforwards	**$ 4,491**	$ 4,354
Research and development deductions	**9,562**	8,859
Book amortization in excess of tax	**1,874**	2,171
Share issue costs	**815**	(136)
Revenue recognized for tax purposes in excess of revenue recognized for accounting purposes	**2,790**	668
Tax value in excess of accounting value in lease inducements	**45**	(3)
Federal investment tax credits	**6,470**	5,539
Provincial investment tax credits	**3,347**	2,391
Total deferred tax assets	**29,394**	23,843
Valuation allowance	**(29,394)**	(23,843)
Net deferred tax assets	**$ -**	$ -

Certain comparative figures in the above deferred tax assets table have been recast to increase the Canadian federal investment tax credits by $5,539,000, the provincial investment tax credits by $1,999,000, and the valuation allowance by $7,538,000 as at December 31, 2013. The comparative figures in the income tax expense reconciliation table have also been recast to reflect these changes. These adjustments have no impact on the consolidated financial position, consolidated results of operations or the consolidated cash flows.

8. Contingencies and commitments

Property lease

On June 23, 2014, the Company signed a renewal agreement to the operating lease for its laboratory and office premises. The renewal is effective August 1, 2014 and expires July 31, 2019, but the Company has the option to extend the lease to 2024, 2029, and 2034. The renewal agreement includes lease inducements, which are amortized on a straight-line basis over the term of the lease, in accordance with the Company's accounting policy.

Following the lease renewal, the minimum rent and estimated operating cost commitment, net of lease inducements, is as follows:

Year ended December 31, 2015	$ 1,119,000
Year ended December 31, 2016	1,119,000
Year ended December 31, 2017	1,119,000
Year ended December 31, 2018	1,119,000
Year ended December 31, 2019	653,000
	$ 5,129,000

The Company's lease expense, for the year ended December 31, 2014 of $1,133,000 has been recorded in the consolidated statements of operations and comprehensive income (loss) (2013 - $1,225,000; 2012 - $937,000).

Product development partnership with the Canadian Government

The Company entered into a Technology Partnerships Canada ("TPC") agreement with the Canadian Federal Government on November 12, 1999. Under this agreement, TPC agreed to fund 27% of the costs incurred by the Company, prior to March 31, 2004, in the development of certain oligonucleotide product candidates up to a maximum contribution from TPC of $7,179,000 (C$9,330,000). As at December 31, 2014, a cumulative contribution of $3,191,000 (C$3,702,000) had been received and the Company does not expect any further funding under this agreement. In return for the funding provided by TPC, the Company agreed to pay royalties on the share of future licensing and product revenue, if any, that is received by the Company on certain non-siRNA oligonucleotide product candidates covered by the funding under the agreement. These royalties are payable until a certain cumulative payment amount is achieved or until a pre-specified date. In addition, until a cumulative amount equal to the funding actually received under the agreement has been paid to TPC, the Company agreed to pay 2.5% royalties on any royalties the Company receives for Marqibo. For the year-ended December 31, 2014, the Company earned royalties on Marqibo sales in the amount of $190,000 (see note 3(f)), resulting in $5,000 recorded by the Company as royalty payable to TPC (2013 - $1,000, 2012 - $nil). The cumulative amount paid or accrued up to December 31, 2014 was $6,000, resulting in the contingent amount due to TPC being $3,185,000 (C$3,695,000).

License agreement with Marina Biotech, Inc. (“Marina”)

On November 29, 2012 the Company announced a worldwide, non-exclusive license to a novel RNAi payload technology called Unlocked Nucleobase Analog (“UNA”) from Marina for the development of RNAi therapeutics.

UNA technology can be used in the development of RNAi therapeutics, which treat disease by silencing specific disease causing genes. UNAs can be incorporated into RNAi drugs and have the potential to improve them by increasing their stability and reducing off-target effects.

Under the license agreement the Company paid Marina an upfront fee of $300,000. A further license payment of $200,000 was paid in 2013 and the Company will make milestone payments of up to $3,250,000 and royalties on each product developed by the Company that uses Marina’s UNA technology. The payments to Marina are expensed to research, development, collaborations and contracts expense.

Effective August 9, 2013, Marina’s UNA technology was acquired by Arcturus Therapeutics, Inc. (“Arcturus”) and the UNA license agreement between the Company and Marina was assigned to Arcturus. The terms of the license are otherwise unchanged. On December 22, 2014, the Company received clearance from Health Canada to conduct a Phase I Clinical Study with TKM-HBV, which utilizes Arcturus’ UNA technology. This triggered the accrual of a $150,000 as at December 31, 2014 related to the milestone payment to Arcturus upon the dosing of first subject in a Phase I clinical trial of TKM-HBV, which occurred on January 21, 2015.

Arbitration with the University of British Columbia (“UBC”)

Certain early work on lipid nanoparticle delivery systems and related inventions was undertaken at UBC. These inventions are licensed to the Company by UBC under a license agreement, initially entered in 1998 as amended in 2001, 2006 and 2007. The Company has granted sublicenses under the UBC license to Alnylam as well as to Talon. Alnylam has in turn sublicensed back to the Company under the licensed UBC patents for discovery, development and commercialization of RNAi products. In 2009, the Company entered into a supplemental agreement with UBC, Alnylam and AlCana, in relation to a separate research collaboration to be conducted among UBC, Alnylam and AlCana to which the Company has license rights. The settlement agreement signed in late 2012 to resolve the litigation among the Company, Alnylam, and AlCana, provided for the effective termination of all obligations under such supplemental agreement as between and among all litigants (see note 3(c)).

On November 10, 2014, UBC filed a notice of arbitration against the Company and on January 16, 2015, filed a Statement of Claim, which alleges entitlement to $3,500,000 in allegedly unpaid royalties based on publicly available information, and an unspecified amount based on non-public information. UBC also seeks interest and costs, including legal fees. The Company is currently disputing UBC’s allegations, and no dates have been scheduled for this arbitration. However, the Company notes that arbitration is subject to inherent uncertainty and an arbitrator could rule against the Company. The Company has not recorded an estimate of the possible loss associated with this arbitration, due to the uncertainties related to both the likelihood and amount of any possible loss or range of loss. However, the defense of arbitration and related matters are costly and may divert the attention of the Company’s management and other resources that would otherwise be engaged in other activities. Costs related to the arbitration have been recorded by the Company as incurred.

9. Concentrations of business risk

Credit risk

Credit risk is defined by the Company as an unexpected loss in cash and earnings if a collaborative partner is unable to pay its obligations in due time. The Company’s main source of credit risk is related to its accounts receivable balance which principally represents temporary financing provided to collaborative partners in the normal course of operations.

The Company does not currently maintain a provision for bad debts as the majority of accounts receivable is from collaborative partners or government agencies and are considered low risk.

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at December 31, 2014 was the accounts receivable balance of $1,903,000 (December 31, 2013 - $117,000).

All accounts receivable balances were current as at December 31, 2014 and December 31, 2013.

Significant collaborators and customers risk

We depend on a small number of collaborators and customers for a significant portion of our revenues (see note 3).

Liquidity Risk

Liquidity risk results from the Company’s potential inability to meet its financial liabilities, for example payments to suppliers. The Company ensures sufficient liquidity through the management of net working capital and cash balances.

The Company’s liquidity risk is primarily attributable to its cash and cash equivalents, and short-term investments. The Company limits exposure to liquidity risk on its liquid assets through maintaining its cash and cash equivalent, and short-term investments with high-credit quality financial institutions. Due to the nature of these investments, the funds are available on demand to provide optimal financial flexibility.

The Company believes that its current sources of liquidity are sufficient to cover its likely applicable short term cash obligations. The Company’s financial obligations include accounts payable and accrued liabilities which generally fall due within 45 days.

The net liquidity of the Company is considered to be the cash and cash equivalents and short-term investments less accounts payable and accrued liabilities.

	December 31, 2014	December 31, 2013
Cash, cash equivalents and short-term investments	**$ 112,161**	$ 68,717
Less: Accounts payable and accrued liabilties	**(9,328)**	(3,680)
	$ 102,833	$ 65,037

Foreign currency risk

The results of the Company's operations are subject to currency transaction and translation risk as the Company's revenues and expenses are denominated in both Canadian and US dollars. The fluctuation of the US dollar in relation to the Canadian dollar will consequently have an impact upon the Company's reported income or loss and may also affect the value of the Company's assets, liabilities, and the amount of shareholders' equity both as recorded in the Company's financial statements, in the Canadian functional currency, and as reported, for presentation purposes, in the US dollar.

The Company manages its US dollar exchange rate risk by, whenever possible, using cash received from US dollar revenues and financing to pay US dollar expenses. Prior to the financing in October 2013 (note 5(a)), which was denominated in US dollars, the Company's policy was to convert all but a working capital level of US dollars into Canadian dollars. Given the Company's increasing level of US dollar expenses, its policy is now to maintain US and Canadian dollar cash and investment and short-term investment balances based on long term forecasts of currency needs thereby creating a natural currency hedge.

The Company has not entered into any agreements or purchased any instruments to hedge possible currency risks. The Company's exposure to US dollar currency expressed in Canadian dollars was as follows:

(in C$)	December 31, 2014	December 31, 2013
Cash and cash equivalents and short-term investments	**$ 75,224**	$ 38,901
Accounts receivable	**1,942**	11
Accrued revenue	**624**	226
Accounts payable and accrued liabilities	**(4,494)**	(1,889)
	$ 73,296	$ 37,248

An analysis of the Company's sensitivity to foreign currency exchange rate movements is not provided in these financial statements as the Company's US dollar cash holdings and expected US dollar revenues are sufficient to cover US dollar expenses for the foreseeable future.

10. Supplementary information

Accounts payable and accrued liabilities is comprised of the following:

	December 31, 2014	December 31, 2013
Trade accounts payable	**$ 2,044**	$ 1,217
Research and development accruals	**2,391**	669
License fee accruals	**250**	-
Professional fee accruals	**1,294**	247
Deferred lease inducements	**250**	16
Payroll accruals	**2,873**	1,224
Other accrued liabilities	**226**	307
	$ 9,328	$ 3,680

11. Interim financial data (unaudited)

	2014				
	Q1	Q2	Q3	Q4	**Total**
Revenue	4,430	1,811	4,362	4,350	**14,953**
Loss from operations	(5,958)	(9,423)	(6,844)	(10,747)	**(32,972)**
Net loss	(17,984)	(6,081)	(8,604)	(6,168)	**(38,837)**
Basic and diluted net loss per share	$ (0.91)	$ (0.28)	$ (0.39)	$ (0.27)	**$ (1.80)**

	2013				
	Q1	Q2	Q3	Q4	**Total**
Revenue	2,132	2,844	2,963	7,52	**15,465**
Loss from operations	(2,994)	(3,071)	(3,652)	(2,435)	**(12,152)**
Net loss	(2,546)	(3,015)	(5,906)	(2,596)	**(14,063)**
Basic and diluted net loss per share	$ (0.18)	$ (0.21)	$ (0.41)	$ (0.15)	**$ (0.92)**

12. Subsequent events

Merger with OnCore Biopharma, Inc. (“OnCore”)

On January 11, 2015, the Company entered into a Merger Agreement to acquire 100% of the outstanding shares of OnCore, a privately owned US company focused on discovery, development and commercialization of an all-oral cure regimen for patients with HBV. The merger was approved by the Company’s shareholders on March 3, 2015 and consummated on March 4, 2015 by issuing 23,973,317 common shares of the Company. The results from the acquisition of the merger will be included in the statement of operations commencing March 4, 2015.

The transaction will be accounted for using the acquisition method based on ASC 805, Business Combinations, on the basis that Tekmira is the acquirer, which is based on managements’ analysis and the number of shares to be issued. Under the acquisition method, the consideration transferred is measured at the market price as at the acquisition date. The excess of the purchase price over the preliminary value assigned to the net assets acquired will be recorded as goodwill. Due to the timing of the acquisition of OnCore, the initial accounting for the business acquisition is incomplete as of the date of this report. The aggregate fair value of the consideration, assets acquired and liabilities assumed are our best estimates that are based upon certain valuations and analyses that have yet to be finalized and are subject to adjustments once the detailed analyses are completed. Certain of the common shares issued in consideration of the merger are subject to repurchase by the Company in specified circumstances under employment agreements with the holders.

The fair value of consideration to be transferred to acquire OnCore’s outstanding shares has been estimated to be approximately $381,942,000, and has been attributed to the preliminary valuation of assets acquired and liabilities assumed are as follows:

Consideration paid:	
Common shares issued without subjects	$ 371,553
Common shares issued subject to repurchase provision	9,262
Common shares issuable for OnCore stock options	1,127
	$ 381,942
Identifiable assets acquired and liabilities assumed:	
Cash	$ 325
Prepaid expenses and other assets	125
Accounts receivable	7
Property and equipment	149
Acquired intangible assets from combined OnCore	393,192
Accounts payable and accrued liabilities	(3,182)
Other noncurrent liabilities	(8,674)
Total purchase price allocation	$ 381,942

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

As of the end of our fiscal year ended December 31, 2014, an evaluation of the effectiveness of our "disclosure controls and procedures" (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) was carried out by our management, with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO). Based upon that evaluation, the CEO and CFO have concluded that as of the end of that fiscal year, our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission (the "Commission") rules and forms and (ii) accumulated and communicated to the management of the registrant, including the CEO and CFO, to allow timely decisions regarding required disclosure.

It should be noted that while the CEO and CFO believe that our disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect that our disclosure controls and procedures or internal control over financial reporting will prevent all errors and fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

Management's Annual Report on internal control over financial reporting

Management is responsible for establishing and maintaining adequate internal control over our financial reporting, as such term is defined in Rule 13a-15(f) of the Securities Exchange Act of 1934. Our internal control system was designed to provide reasonable assurance that all transactions are accurately recorded, that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our assets are safeguarded.

Management has assessed the effectiveness of our internal control over financial reporting as at December 31, 2014. In making its assessment, management used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework in Internal Control – Integrated Framework (2013) to evaluate the effectiveness of our internal control over financial reporting. Based on this assessment, management has concluded that our internal control over financial reporting was effective as of December 31, 2014.

Attestation report of the registered public accounting firm

The Company is an "accelerated filer" within the meaning of Rule 12b-2 under the Exchange Act. The independent registered public accounting firm's report on the effectiveness of our internal control over financial reporting are included in Item 8 of this annual report on Form 10-K and are incorporated herein by reference.

Changes in internal control over financial reporting

There have been no changes in our internal control over financial reporting during the period covered by the annual report, being the fiscal year ended December 31, 2014, that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting and disclosure controls and procedures.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item is incorporated herein by reference to the information contained under the sections captioned "Proposal One — Election of Directors," "Section 16(a) Beneficial Ownership Reporting Compliance" and "Corporate Governance" of the Proxy Statement. The information required by this item relating to executive officers is included in Part I, Item 1, "— Business-Executive Officers of the Registrant," of this annual report on Form 10-K.

Item 11. Executive Compensation

The information required by this item is incorporated herein by reference to the information contained under the sections captioned "Information about Executive Officer and Director Compensation," "Compensation Committee Interlocks and Insider Participation," "Employment Arrangements" and "Compensation Committee Report" of the Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is incorporated herein by reference to the information contained under the sections captioned "Security Ownership of Certain Beneficial Owners and Management," "Information about Executive Officer and Director Compensation" and "Securities Authorized for Issuance Under Equity Compensation Plans" of the Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated herein by reference to the information contained under the sections captioned "Corporate Governance," "Employment Arrangements" and "Certain Relationships and Related Transactions" of the Proxy Statement.

Item 14. Principal Accountant Fees and Services

The information required by this item is incorporated herein by reference to the information contained under the sections captioned "Corporate Governance," "Principal Accountant Fees and Services" and "Pre-Approval Policies and Procedures" of the Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules

Financial Statements

See Index to Consolidated Financial Statements under Item 8 of Part II.

Financial Statement Schedules

None

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on March 13, 2015.

TEKMIRA PHARMACEUTICALS CORPORATION

By: /s/ Mark Murray
Mark Murray
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated on March 13, 2015.

Signatures	Capacity in Which Signed
/s/ Vivek Ramaswamy Vivek Ramaswamy	Director (Chairman)
/s/ Mark Murray Mark Murray	President and Chief Executive Officer and Director (Principal Executive Officer)
/s/ Bruce Cousins Bruce Cousins	Executive Vice President, Finance and Chief Financial Officer (Principal Financial Officer and Accounting Officer)
/s/ Herbert J. Conrad Herbert J. Conrad	Director
/s/ Richard C. Henriques Richard C. Henriques	Director
/s/ Frank Karbe Frank Karbe	Director
/s/ Keith Manchester Keith Manchester	Director
/s/ William T. Symonds William T. Symonds	Chief Development Officer

Exhibit Number	Description
2.1*	Subscription Agreement, between the Company and Alnylam Pharmaceuticals, Inc., dated March 28, 2008 (incorporated herein by reference to Exhibit 2.1 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
2.2*	Subscription Agreement, between the Company and Roche Finance Ltd., dated March 31, 2008 (incorporated herein by reference to Exhibit 2.2 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
2.3*	Agreement and Plan of Merger and Reorganization, dated January 11, 2015, by and among Tekmira Pharmaceuticals Corporation, TKM Acquisition Corporation and OnCore Biopharma, Inc. (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
3.1*	Notice of Articles and Articles of the Company (incorporated herein by reference to Exhibit 1.1 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
3.2*	Amendment to the Articles of the Company dated May 14, 2013 (incorporated herein by reference to Exhibit 3.2 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
3.3*	Governance Amendment to the Articles of the Company dated March 4, 2015, (incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on March 4, 2015).
3.4*	Approval of Quorum Policy of the Company, adopted January 31, 2015 (incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 5, 2015).
4.1*	Governance Agreement between the Company and Roivant Sciences Ltd., a Bermuda exempted company, dated January 11, 2015 (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.1†*	Amendment No. 1 to the Amended and Restated Agreement, between the Company (formerly Inex Pharmaceuticals Corporation) and Hana Biosciences, Inc., effective as of May 27, 2009 (incorporated herein by reference to Exhibit 4.1 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.2†*	Amended and Restated License Agreement, between Inex Pharmaceuticals Corporation and Hana Biosciences, Inc., dated April 30, 2007 (incorporated herein by reference to Exhibit 4.2 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.3†*	Sublicense Agreement, between Inex Pharmaceuticals Corporation and Alnylam Pharmaceuticals, Inc., dated January 8, 2007 (incorporated herein by reference to Exhibit 4.3 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.4†*	Amended and Restated License and Collaboration Agreement, between the Company and Alnylam Pharmaceuticals, Inc., effective as of May 30, 2008 (incorporated herein by reference to Exhibit 4.4 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.5†*	Amended and Restated Cross-License Agreement, between Alnylam Pharmaceuticals, Inc. and Protiva Biotherapeutics Inc., dated May 30, 2008 (incorporated herein by reference to Exhibit 4.5 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.6†*	License Agreement, between Inex Pharmaceuticals and Aradigm Corporation, dated December 8, 2004 (incorporated herein by reference to Exhibit 4.6 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.7†*	Settlement Agreement, between Sirna Therapeutics, Inc. and Merck & Co., Inc. and Protiva Biotherapeutics Inc. and Protiva Biotherapeutics (USA), Inc., effective as of October 9, 2007 (incorporated herein by reference to Exhibit 4.7 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.8†*	Development, Manufacturing and Supply Agreement, between the Company and Alnylam Pharmaceuticals, Inc., dated January 2, 2009 (incorporated herein by reference to Exhibit 4.8 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).

10.9†*#	Executive Employment Agreement with Ian Mortimer, dated March 26, 2008 (incorporated herein by reference to Exhibit 4.9 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.10*#	Executive Employment Agreement with Ian MacLachlan, dated May 30, 2008 (incorporated herein by reference to Exhibit 4.10 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.11*#	Executive Employment Agreement with Mark Murray, dated May 30, 2008 (incorporated herein by reference to Exhibit 4.11 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.12*#	Executive Employment Agreement with Peter Lutwyche, dated January 1, 2009 (incorporated herein by reference to Exhibit 4.12 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.13*#	Share Option Plan amended through May 12, 2009 (including form stock option agreements) (incorporated herein by reference to Exhibit 4.13 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.14*	Lease Agreement with Canada Lands Company CLC Limited dated December 15, 1997, as amended (incorporated herein by reference to Exhibit 4.14 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.15*#	Form of Indemnity Agreement (incorporated herein by reference to Exhibit 4.15 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.16*	Award Contract with USASMDC/ARSTRAT effective date July 14, 2010 (incorporated herein by reference to Exhibit 4.16 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.17†*	License Agreement between the University of British Columbia and Inex Pharmaceuticals Corporation executed on July 30, 2001 (incorporated herein by reference to Exhibit 4.17 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.18†*	Amendment Agreement between the University of British Columbia and Inex Pharmaceuticals Corporation dated July 11, 2006 (incorporated herein by reference to Exhibit 4.18 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.19†*	Second Amendment Agreement between the University of British Columbia and Inex Pharmaceuticals Corporation dated January 8, 2007 (incorporated herein by reference to Exhibit 4.19 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.20†*	Consent Agreement of the University of British Columbia to Inex/Alnylam Sublicense Agreement dated January 8, 2007 (incorporated herein by reference to Exhibit 4.20 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.21†*	Amendment No. 2 to the Amended and Restated Agreement, between the Company (formerly Inex Pharmaceuticals Corporation) and Hana Biosciences, Inc., effective as of September 20, 2010 (incorporated herein by reference to Exhibit 4.21 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.22†*	License and Collaboration Agreement between the Company and Halo-Bio RNAi Therapeutics, Inc. as of August 24, 2011 (incorporated herein by reference to Exhibit 4.22 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2011 filed with the SEC on March 27, 2012).
10.23*	Loan Agreement with Silicon Valley Bank dated as of December 21, 2011 (incorporated herein by reference to Exhibit 4.23 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2011 filed with the SEC on March 27, 2012).
10.24*#	Employment Agreement with Paul Brennan dated August 24, 2010 (incorporated herein by reference to Exhibit 4.24 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2011 filed with the SEC on March 27, 2012).
10.25*#	Tekmira 2011 Omnibus Share Compensation Plan approved by shareholders on June 22, 2011 (incorporated herein by reference to Exhibit 4.25 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2011 filed with the SEC on March 27, 2012).

10.26†*	Settlement Agreement and General Release, by and among Tekmira Pharmaceuticals Corporation, Protiva Biotherapeutics Inc., Alnylam Pharmaceuticals, Inc., and AlCana Technologies, Inc., dated November 12, 2012 (incorporated herein by reference to Exhibit 4.26 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012 filed with the SEC on March 27, 2013).
10.27†*	Cross-License Agreement by and among Alnylam Pharmaceuticals, Inc., Tekmira Pharmaceuticals Corporation and Protiva Biotherapeutics Inc., dated November 12, 2012(incorporated herein by reference to Exhibit 4.27 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012 filed with the SEC on March 27, 2013).
10.28†*	License Agreement by and among Protiva Biotherapeutics Inc. and Marina Biotech, Inc. dated November 28, 2012 (incorporated herein by reference to Exhibit 4.28 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012 filed with the SEC on March 27, 2013).
10.29*#	Employment Agreement with Diane Gardiner dated March 1, 2013 (incorporated herein by reference to Exhibit 4.29 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012 filed with the SEC on March 27, 2013).
10.30*#	Employment Agreement with Mark Kowalski dated August 12, 2013 (incorporated herein by reference to Exhibit 10.30 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.31*#	Employment Agreement with Bruce Cousins dated October 7, 2013 (incorporated herein by reference to Exhibit 10.31 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.32†*	Services Agreement by and among Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Company dated January 12, 2014 (incorporated herein by reference to Exhibit 10.32 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.33†*	Option Agreement by and among Tekmira Pharmaceuticals Corporation, Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Canada Inc. dated January 12, 2014 (incorporated herein by reference to Exhibit 10.33 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.34†*	License and Services Agreement by and among Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Tekmira Pharmaceuticals Corporation dated January 12, 2014 (incorporated herein by reference to Exhibit 10.34 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.35*	Forms of Lock-Up Agreement (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.36*	Form of Registration Rights Agreement (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.37*	Form of Standstill Agreement (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.38*	Form of Representation Letter (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).

10.39**#	Executive Employment Agreement with Michael Abrams, dated November 14, 2013
10.40**#	Executive Employment Agreement with Kirk Rosemark, dated December 8, 2014
10.41**††	License Agreement, between Tekmira Pharmaceuticals and Protiva Biotherapeutics and Dicerna Pharmaceuticals dated November 16, 2014
10.42**††	Manufacturing and Clinical Trial Agreement between Tekmira Pharmaceuticals and Protiva Biotherapeutics and the Chancellor Masters and Scholars of the University of Oxford, dated December 18, 2014
10.43**	Modification Contract P0001, dated July 19, 2010, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.44**	Modification Contract P0002, dated April 15, 2011, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.45**	Modification Contract P0003, dated June 13, 2011, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.46**††	Modification Contract P0004, dated October 3, 2011, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.47**	Modification Contract P0005, dated December 2, 2011, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.48**	Modification Contract P0006, dated January 25, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.49**††	Modification Contract P0007, dated March 5, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.50**	Modification Contract P0008, dated April 23, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.51**	Modification Contract P0009, dated June 29, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.52**	Modification Contract P00010, dated July 16, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.53**	Modification Contract P00011, dated July 25, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.54**††	Modification Contract P00012, dated August 2, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.55**	Modification Contract P00013, dated August 27, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.56 **	Modification Contract P00014, dated August 31, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.57**	Modification Contract P00015, dated October 1, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.58**	Modification Contract P00016, dated October 2, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.59**	Modification Contract P00017, dated October 19, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.60**	Modification Contract P00018, dated December 31, 2012, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.61**	Modification Contract P00019, dated January 23, 2013, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.62 **	Modification Contract P00020, dated February 19, 2013, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.63 **	Modification Contract P00021, dated March 29, 2013, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.64**††	Modification Contract P00022, dated April 30, 2013, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.65**††	Modification Contract P00023, dated May 21, 2013, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.66 **	Modification Contract P00024, dated June 19, 2013, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.67**††	Modification Contract P00025, dated April 22, 2014, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.68**††	Modification Contract P00026, dated July 25, 2014, to Award Contract, dated July 14, 2010 (Exhibit 10.16)

10.69**	Modification Contract P00027, dated July 25, 2014, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.70 **††	Modification Contract P00028, dated September 5, 2014, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.71 **	Modification Contract P00029, dated September 30, 2014, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.72**††	Modification Contract P00030, dated October 31, 2014, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.73**	Modification Contract P00031, dated November 17, 2014, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.74**††	Modification Contract P00032, dated March 4, 2015, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.75**††	Modification Contract P00033, dated March 4, 2015, to Award Contract, dated July 14, 2010 (Exhibit 10.16)
10.76**	Underwriting Agreement for 3,750,000 Common Shares with Stifel, Nicolaus & Company, dated October 17, 2013
10.77**	Underwriting Agreement for 2,125,000 Common Shares with Leerink Partners LLC, dated March 14, 2014
21.1**	List of Subsidiaries
23.1**	Consent of KPMG LLP, an Independent Registered Public Accounting Firm
31.1**	Certification of Chief Executive Officer pursuant to Rule 13a-14 or 15d-14 of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2**	Certification of Chief Financial Officer pursuant to Rule 13a-14 or 15d-14 of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS**	XBRL Instance Document
101.SCH**	XBRL Taxonomy Extension Schema Document
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document

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*	Previously filed
**	Filed herewith
†	Confidential treatment granted as to portions of this exhibit.
††	Confidential treatment has been requested as to portions of this exhibit.
#	Management Contract

EMPLOYMENT AGREEMENT

THIS AGREEMENT made this 14 day of November, 2013

BETWEEN:

TEKMIRA PHARMACEUTICALS CORPORATION, a company incorporated under the laws of British Columbia (the **"Company"),** with offices at 100 - 8900 Glenlyon Parkway, Burnaby, British Columbia fax: (604) 419-3201

AND:

MICHAEL ABRAMS (the **"Executive"),** of Custer, Washington, USA

WHEREAS:

A. The Company is in the business of acquiring, inventing, developing, discovering, adapting and commercializing inventions, methods, processes and products in the fields of chemistry, biochemistry, biotechnology and pharmaceuticals;

B. The Executive has the expertise, qualifications and required certifications to perform the services contemplated by this Agreement; and

C. The Company wishes to employ the Executive to perform the services, on the terms and conditions herein set forth, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged.

NOW THISEFORE THIS AGREEMENT WITNESSES that the parties hereto agree as follows:

1. EMPLOYMENT

(a) The Executive will be employed by and will serve the Company as its **Executive Vice President and Chief Discovery Officer.** The Executive will report directly to the **President and Chief Executive Officer** of the Company and will from time to time by the Chief Executive Officer. The Executive will comply with all lawful instructions given by the Chief Executive Officer of the Company.

(b) The terms and conditions of this Agreement will have effect as and from January 2, 2014 and the Executive's employment as **Executive Vice President and Chief Discovery Officer** will continue until tem1inated as provided for in this Agreement.

(c) The Executive acknowledges and agrees that in addition to the tenns and conditions of this Agreement, his employment with the Company is subject to and governed by the Company's policies as established from time to time. The Executive agrees to comply with the terms of such policies so long as they are not inconsistent with any provisions of the Agreement. The Executive will inform himself of the details of such policies and amendments thereto established from time to time.

(d) The Executive agrees that, as a high technology professional as defined in the Regulations to the *Employment Standards Act* of British Columbia, and an executive, his hours of work will vary and may be irregular and will be those hours required to meet the objectives of his employment. The Executive agrees that the compensation described in Section 2 of this Agreement compensates him in full for all hours worked.

(e) The Executive will devote 80% of his time to the Company's business and will not be employed or engaged in any capacity in any other business without the prior permission of the Company, such permission not to be unreasonably witl

(f) Concurrently with the execution and delivery of this Agreement and in consideration of his employment by the Company, the Executive and the Company will enter into a "Confidentiality and Assignment of Inventions Agreement" in the form attached hereto as Appendix A.

2. REMUNERATION AND BENEFITS

(a) The Company will pay the Executive an annual salary of $270,000 (Canadian funds), less required deductions (the "Base Salary"). The Base Salary will be payable semi-monthly.

(b) The Base Salary will be reviewed on an annual basis. This review will not result in a decrease in the Base Salary nor will it necessarily result in an increase to the Base Salary.

(c) The Executive will be eligible for an annual cash bonus of up to 40 percent of the Base Salary, if the Chief Executive Officer and the Board of Directors in their absolute discretion determine that the Executive has achieved the performance objectives agreed to between the Executive and the Chief Executive Officer. Any bonus payable during the first year of the Executive's employment will be pro rated. Payment of a bonus in any one year will not indicate the payment of a bonus in any other year.

(d) The
Company will facilitate the Executive's enrolment in the Company's insurance benefits plans, as amended from time to time. In all cases, eligibility to participate in the plans and to receive benefits under the plans will be subject to the te

The Company is not responsible for the payment of benefits in any circumstance. Further, the Company reserves the right to change any of the insurance benefit plans or providers, however, if the Company is unable to maintain similar coverage as to the insurance benefits plans or the providers, then the Executive will be provided with compensation to assist in securing his own coverage, such compensation to be determined by the Company.

(e) The Executive will be eligible for participation in the Company's share incentive plan, subject to the terms of the plan.

(f) The Company will reimburse the Executive for all reasonable expenses actually and properly incurred by the Executive in connection with the performance of his duties. The Executive will provide the Company with receipts supporting his claims for reimbursement.

3. VACATION

The Executive will be entitled to an annual paid vacation of twenty (20) days, to be scheduled at times that are mutually acceptable to the Executive and the Company.

4. NON-COMPETITION AND NON-SOLICITATION

(a) The biotechnology industry is highly competitive and employees leaving the employ of the Company have the ability to cause significant damage to the Company's interests if they join a competing business immediately upon leaving th

(b) Definitions:

(i) **"Business" or "Business of the Company"** means:

(A) the researching, developing, production and marketing of RNA interference drugs and delivery technology , as such business grows and evolves during this Agreement ; and
(B) any other material business carried on from time to time by the Company or any subsidiary or affiliate of the Company.

(ii) **"Competing Business"** means any endeavour, activity or business which is competitive in any material way with the Business of the Company worldwide.

(iii) **"Customer"** means any entity that is a customer of the Company that the Executive has been directly or indirectly, through his reports, involved in servicing on behalf of the Company.

(iv) **"Prospective Customer"** means any entity during the course of his employment that was solicited by the Executive on behalf of the Company

for the purposes of becoming a customer of the Company or whom he knows was solicited by the Company for the purpose of becoming a customer of the Company.

(c) The Executive shall not, during the term of this Agreement and for the Restricted Period (as defined below) following the termination of his employment for any reason, on his own behalf or on behalf of any entity, whether directly or indirectly, in any capacity whatsoever, alone, through or in connection with any entity, carry on or be employed by or engaged in or have any financial or other interest in or be otherwise commercially involved in a Competing Business. In this Agreement, **"Restricted Period"** means: (i) in the event that the Executive is terminated pursuant to Section 6(b) of this Employment Agreement , a period equivalent to the amount of notice that the Executive is entitled pursuant to Section 6(b)(ii); or (ii) in the event that the Executive 's employment is terminated pursuant to a Change of Control (as defined below), a period of twelve (12) months.

(d) The Executive shall, however, not be in default of Section 4(c) by virtue of the Executive:

(i) following the termination of employment, holding, strictly for portfolio purposes and as a passive investor, no more than five percent (5%) of the issued and outstanding shares of, or any other interest in, any corporation or other entity that is a Competing Business; or

(ii) during the course of employment, holding, strictly for portfolio purposes and as a passive investor, no more than five percent (5%) of the issued and outstanding shares of, or any other interest in, any corporation or other entity, the business of which corporation or other entity is in the same Business as the Company, and provided further that the Executive first obtains the Company's written consent, which consent will not be unreasonably withheld.

(e) If the Executive holds issued and outstanding shares or any other interest in a corporation or other entity pursuant to Section 4(d)(ii) and following the acquisition of such shares or other interest the business of the corporation or other entity becomes a Competing Business, the Executive will promptly dispose of his shares or other interest in such corporation or other entity.

(f) The Executive shall not, during this Agreement and for the Restricted Period following the termination of his employment, for whatever reason, on his own behalf or on behalf of or in connection with any other entity, without the prior written and informed consent of the Company, directly or indirectly, m any capacity whatsoever, alone, through or in connection with any entity:

(i) canvass or solicit the business of (or procure or assist the canvassing or soliciting of the business of) any Customer or Prospective Customer of the Company, or otherwise solicit, induce or encourage any Customer or

Prospective Customer of the Company to cease to engage the services of the Company, for any purpose which is competitive with the Business; or

(ii) accept (or procure or assist the acceptance of) any business from any Customer or Prospective Customer of the Company which business is competitive with the Business; or

(iii) supply (or procure or assist the supply of) any goods or services to any Customer or Prospective Customer of the Company for any purpose which is competitive with the Business; or

(iv) employ, engage, offer employment or engagement to or solicit the employment or engagement of or otherwise entice away from or solicit, induce or encourage to leave the employment or engagement of the Company, any individual wl not such individual would commit any breach of his contract or terms of employment or engagement by leaving the employ or the engagement of the Company; or

(v) procure or assist any entity to employ, engage, offer employment or engagement or solicit the employment or engagement of any individual who is employed or engaged by the Company or otherwise entice away from the employment or engagement of the Company any such individual. Notwithstanding the foregoing, the Executive shall, be permitted to, solely in a personal capacity, provide letters of reference for individuals who are employed by the Company.

(g) The Executive expressly recognizes and acknowledges that it is the intent of the parties that his activities following the termination of his employment with the Company be restricted in the manner described in this Agreement, and acknowledges that good, valuable, and sufficient consideration has been provided in exchange for such restrictions.

5. INJUNCTIVE RELIEF

(a) The Executive understands and agrees that the Company has a material interest in preserving the relationships it has developed with its executives, customers and suppliers against impairment by competitive activities of a former executive. Accordingly, the Executive agrees that the restrictions and covenants contained in Section 4 are reasonably required for the protection of the Company and its goodwill and that the Executive's agreement to those restrictions and covenants by the execution of this Agreement , are of the essence to this Agreement and constitute a material inducement to the Company to enter into this Agreement and to employ the Executive, and that the Company would not enter into this Agreement absent such an inducement.

(b) The Executive understands and acknowledges that if the Executive breaches Section 4, that breach will give rise to irreparable injury to the Company for which damages are an inadequate remedy, and the Company may pursue injunctive relief for such breach in a court of competent jurisdiction.

6. TERMINATION

(a) The Executive may terminate his employment by giving at least three (3) months' advance notice in writing to the Company of the effective date of the resignation. The Company may waive such notice, in whole or in part, and if it does so, the Executive's resignation will become effective and his employment will cease on the date set by the Company in the notice of waiver.

(b) The Company may terminate the Executive's employment:

(i) without notice or payment in lieu thereof, for just cause, which for the purposes of this Agreement will be defined to include but not be limited to the Executive's willful and continued failure to perform his duties hereunder and the Executive's willful engagement in conduct that is injurious to the Company, monetarily or otherwise; or

(ii) at the Company's sole discretion for any reason, without cause, upon providing to the Executive:

(A) an amount equal to twelve (12) months' Base Salary; plus

(B) a bonus payment equal to the average of the actual bonus payments, if any, made to the Executive from the previous three (3) calendar years preceding the date of termination of employment, pro-rated for the then current calendar year up to and including the day of termination; (collectively, the "Severance Amount"). The Company may pay the Severance Amount by way of one or more lump sum payments, by way of salary continuance or by a combination of both. The Severance Amount is inclusive of any entitlement to minimum standard severance under the *B.C. Employment Standards Act.*

(c) In this Agreement, "Change of Control" means the first occurrence of any one of:

(i) the acquisition or continuing ownership by any person or persons acting jointly or in concert (as such phrase is defined in the *Securities Act* (British Columbia)), directly or indirectly, of common shares or of convertible securities, which, when added to all other securities of the Company at the time held by such person or persons, or persons associated or affiliated with such person or persons within the meaning of the

Business Corporations Act (British Columbia) (collectively, the **"Acquirors"),** and assuming the conversion, exchange or exercise of convertible securities beneficially owned by the Acquirors, results in the Acqui cast more than 50% of the votes attaching to all shares in the capital of the Company that may be cast to elect directors;

(ii) the sale, lease or exchange or other disposition of all or substantially all of the Company's assets;

(iii) an amalgamation, merger, arrangement or other business combination (a **"Business Combination")** involving the Company that results in the security holders of the parties to the Business Combination, other than the Company, owning, directly or indirectly, shares of the continuing entity that entitle the holders thereof to cast more than 50% of the votes attaching to all shares in the capital of the continuing entity that may be cast to elect directors; or

(iv) the Company's Board of Directors, by resolution, determines that a Change of Control of the Company has occurred ."

(d) If a Change of Control occurs and within twelve (12) months after the occurrence of a Change of Control, the Executive resigns his employment for Good Reason upon giving the Company not less than three (3) months' prior written notice of resignation; or at the Company's sole discretion, the Executive is terminated without cause within twelve (12) months after a Change of Control, the Executive will be entitled to receive the Change of Control Severance Amount (as defined below), which, in the case of termination , shall be instead of the Severance Amount. In this Agreement, **"Good Reason"** means one or more of the following events occurring without the Executive's written consent:

(i) a fundamental change in the Executive's status, position , remuneration, authority or responsibilities that does not represent a promotion from or represents an adverse change from the status, position, authority or responsibilities in effect

(ii) a fundamental reduction in the Base Salary or retirement plans, health benefits, bonus potential or other compensation plans, practices, policies or programs provided to the Executive immediately prior to the Change of Control;

(iii) relocation of the Executive's principal place of employment to a place outside of Metro Vancouver;

(iv) any request by the Company that the Executive participate in an unlawful act pursuant to the laws of British Columbia or Canada; or

(v) any failure to secure the agreement of any successor company or other entity to the Company to fully assume the Company's obligations under this Agreement.

(e) In this Agreement, the "Change of Control Severance Amount" means an amount calculated as follows:

(i) an amount equal to:

(A) twelve (12) months' Base Salary, in the event of tennination on or before January 2, 2016, or

(B) eighteen (18) months' Base Salary, in the event of termination after January 2, 2016; plus

(ii) a bonus payment equal to the average of the actual bonus payments, if any, made to the Executive from the previous three (3) calendar years preceding the date of termination of employment, pro-rated for the then current calendar year up to and including the day of termination.

The Company may pay the Change of Control Severance Amount by way of one or more lump sum payments, by way of salary continuance or by a combination of both. The Change of Control Severance Amount is inclu
Employment Standards Act.

(f) No matter how the Executive's employment is terminated, the Executive will be entitled to any wages and bonus payable for service up to and including the day of termination.

7. RETURN OF MATERIALS UPON TERMINATION OF EMPLOYMENT

The Executive will return to the Company all Company documents, files, manuals, books, software, equipment, keys, equipment, identification or credit cards, and all other property belonging to Company upon the termination of his employment with the Company for any reason.

8. GENERAL PROVISIONS

(a) Non-
Waiver. Failure on the part of either party to complain of any act or failure to act of the other of them or to declare the other party in default of this Agreement, irrespective of how long such failure continues, will not constitute a waiver b subsequently declare a default.

(b) **Severability.** In the event that any prov1s10n or part of this Agreement is determined to be void or unenforceable in whole or in part, the remammg provision s, or parts thereof, will be and remain in full force and effect.

(c) **Entire Agreement.** This Agreement constitutes the entire agreement between the parties with respect to the employment of the Executive and supersedes any and all agreements, understandings, warranties or representations of any kind, written or oral, express or implied, including any relating to the nature of the position or its duration, and each of the parties releases and forever discharges the other of and from all manner of actions, causes of action, claim or demands whatsoever under or in respect of any agreement.

(d) **Survival.** The provisions of Sections I (f), 4 and 8(f) will survive the termination of this Agreement.

(e) **Modification of Agreement .** Any modification of this Agreement must be in writing and signed by both the Company and the Executive or it will have no effect and will be void.

(f) **Disputes.** Except for disputes arising in respect of Section **4,** all disputes arising out of or in connection with this Agreement and the employment relationship between the parties, are to be referred to and finally resolved by arbitration administered by the British Columbia International Commercial Arbitration Centre, pursuant to its Rules. The place of arbitration will be Vancouver, British Columbia.

(g) **Governing Law.** This Agreement will be governed by and construed according to the laws of the Province of British Columbia, Canada.

(h) **Reimbursement of Legal Fees.** The Company will reimburse the Executive for all reasonable and receipted legal fees incurred by the Executive in the negotiation, drafting, and completion of this Agreement.

(i) **Independent Legal Advice.** The Executive agrees that the contents, terms and effect of this Agreement have been explained to his by a lawyer and are fully understood. The Executive further agrees that the consideration described aforesaid is accepted voluntarily for the purpose of employment with the Company under the terms and conditions described above.

IN WITNESS WHEREOF this Agreement has been executed by the parties hereto as of the date and year first above written.

SIGNED, SEALED AND DELIVERED
by Michael Abrams in the presence of:

Witness:
Address:

Occupation:

/s/ Michael Abrams
Michael Abrams

TEKMIRA PHARMACEUTICALS CORPORATION

Per: /s/ Mark J. Murray
Mark J. Murray

EXECUTIVE EMPLOYMENTAGREEMENT

THIS AGREEMENT made this 8th day of December, 2014

BETWEEN:

PROTIVA BIOTHERAPEUTICS (USA) Inc.
("Protiva Biotherapeutics" or the "Company"), a Washington corporation

AND:

KIRK ROSEMARK (the "Executive"), of Livermore, California, USA

WHEREAS:

A. The Company is in the business of acquiring, inventing, developing, discovering, adapting and commercializing inventions, methods, processes and products in the fields of chemistry, biochemistry, biotechnology and pharmaceuticals;

B. The Executive has the expertise, qualifications and required certifications to perform the services contemplated by this Agreement; and

C. The Company wishes to employ the Executive to perform the services, on the terms and conditions herein set forth, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged;

NOW THISEFORE THIS AGREEMENT WITNESSES that the parties hereto agree as follows:

1. EMPLOYMENT

(a) The Executive will be employed by and will serve the Company as its Senior Vice President, Regulatory Affairs and Quality Assurance. The Executive will report directly to the President and Chief Executive Officer of the Company and will perform the duties and responsibilities assigned to him from time to time by the Chief Executive Officer. The Executive will comply with all lawful instructions given by the Chief Executive Officer of the Company.

(b) The terms and conditions of this Agreement will have effect as and from January 5,2015 and the Executive's employment as Senior Vice President, Regulatory Affairs & Quality will continue until terminated as provided for in this Agreement.

(c) The Executive acknowledges and agrees that in addition to the terms and conditions of this Agreement, his employment with the Company is subject to and governed by the Company's policies as established from time to time. The Executive agrees to comply with the terms of such policies so long as they are not inconsistent with any provisions of the Agreement. The Executive will inform himself of the details of such policies and amendments thereto established from time to time.

(d) The Executive will devote 100% of his time to the Company's business and will not be employed or engaged in any capacity in any other business without the prior permission of the Company, such permission not to be unreasonably withheld.

(e) Concurrently with the execution and delivery of this Agreement and in consideration of his employment by the Company, the Executive and the Company will enter into a "Confidentiality and Assignment of Inventions Agreement" in the form attached hereto as Appendix A.

(f) Notwithstanding anything to the contrary in this Agreement, the Executive acknowledges and agrees that he may be seconded, at any time, in the Company' sole discretion, to Tekmira Pharmaceuticals Corporation or Protiva Biotherapeutics Inc., both affiliates of the Company. For the avoidance of doubt, any such secondment shall not be considered a termination, constructive or outright, of employment with the Company.

2. REMUNERATION AND BENEFITS

(a) The Company will pay the Executive an annual base salary of S300,000, subject to withholdings and deductions as required or permitted by law (the "Base Salary"). The Base Salary will be paid in semi-monthly installments, in arrears. This is an exempt position and the Executive will not receive overtime compensation.

(b) The Base Salary will be reviewed on an annual basis. This review will not result in a decrease in the Base Salary unless a material adverse change in the financial condition or operations of the Company has occurred or unless the Executive's responsibilities are altered to reflect less responsibility.

(c) The Executive will be eligible for an annual cash bonus of up to 35 percent of the Base Salary, if the Chief Executive Officer and the Board of Directors in their absolute discretion determine that the Executive has achieved the performance objectives agreed to between the Executive and the Chief Executive Officer. Any bonus payable during the first year of the Executive's employment will be pro rated. Payment of a bonus in any one year will not indicate the payment of a bonus in any other year.

(d) The Company will facilitate the Executive's enrolment in the Company's insurance benefits plans, as amended from time to time by the Company or the insurance carrier. In all cases, eligibility to participate in the plans and to receive benefits under the plans will be subject to the terms and requirements of the applicable insurance carrier in accordance with the formal benefits plan documents and policies. Any issues with respect to entitlement to or payment of benefits under the benefits package will be governed by the terms of such documents and policies. The Company is not responsible for the payment of benefits in any circumstance. Further, the Company reserves the right, in its sole discretion, to change any of the insurance benefit plans or providers, however, if the Company is unable to maintain similar coverage as to the insurance benefits plans or the providers, then the Executive will be provided with compensation to assist in securing his own coverage, such compensation to be determined by the Company.

(e) The Executive will be eligible for participation in the Company's share incentive plan, subject to the terms of the plan.

(f) The Company will reimburse the Executive for all reasonable expenses actually and properly incurred by the Executive in connection with the performance of his duties. The Executive will provide the Company with receipts supporting his claims for reimbursement.

(g) By accepting this Agreement, the Executive agrees that the Company may deduct and set-off from any amounts the Company owes the Executive from time to time (including amounts owed to the Executive as wages or other compensation, fringe benefits or vacation pay, as well as any other amounts owed to the Executive by the Company), any amounts the Executive owes to the Company. Notwithstanding the any deduction or set-off made by the Company hereunder, if the Company does not recover by means of such deduction and set-off the full amount owed by the Executive, the Executive agrees to immediately pay the unpaid balance to the Company.

3. VACATION

The Executive will be entitled to an annual paid vacation of 20 days, to be scheduled at times that are mutually acceptable to the Executive and the Company.

4. NON-COMPETITION AND NON-SOLICITATION

(a) The biotechnology industry is highly competitive and employees leaving the employ of the Company have the ability to cause significant damage to the Company's interests if they join a competing business immediately upon leaving the Company.

(b) Definitions:

(i) **"Business"or "Business of the Company"** means:

(A) the researching, developing, production and marketing of RNA interference drugs and delivery technology, as such business grows and evolves during this Agreement; and
(B) any other material business carried on from time to time by the Company or any Affiliate of the Company.

(ii) **"Competing Business"** means any endeavor, activity or business which is competitive in any material way with the Business of the Company worldwide.

(iii) **"Contact"** means any person, firm, corporation or other entity that was a client, customer, supplier, principal, shareholder, investor, collaborator, strategic partner, licensee, contact or prospect of the Company (or of its partners, funders or Affiliates) with whom the Executive dealt or otherwise became aware of during the term of his employment in any capacity with the Company.

(iv) **"Restricted Period"** means:

(A) in the event that the Executive is terminated pursuant to Section 6(b) of this Employment Agreement, a period of six (6) months; or

(B) in the event that the Executive's employment is terminated pursuant to a Change of Control (as defined below), a period of twelve (12) months.

(c) Reasonableness. The Executive hereby acknowledges and agrees that:

(i) both before and since the Effective Date the Company has operated and competed and will operate and compete worldwide, with respect to the Business of the Company;

(ii) competitors of the Company and the Business are located worldwide;

(iii) in order to protect the Company adequately, any enjoinder of competition would have to apply to any country in which the Company, during the term of the Executive's employment, had material business relationships;

(iv) during the course of his employment with the Company, on behalf of the Company, the Executive .will acquire knowledge of, and will come into contact with, initiate and establish relationships with, both existing and new clients, customers, suppliers, principals, contacts and prospects of the Company, and that in some circumstances the Executive may become the senior or sole representative of the Company dealing with such persons; and

(v) in light of the foregoing, the provisions of this Section 4 are reasonable and necessary for the proper protection of the Business of the Company.

(d) Restrictive Covenant. During the term of his employment and for the Restricted Period after the termination thereof, the Executive shall not, within the geographic scope of any country in which the Company, during the term of the Executive's employment, had material business relationships, carry on or be employed by or engaged in or have any financial or other interest in or be otherwise commercially involved in a Competing Business, directly or indirectly, either individually or in partnership or jointly or in conjunction with any person, firm, corporation or other entity, as principal, agent, consultant, advisor, employee, shareholder or in any manner whatsoever.

(e) Exception. The Executive shall not be in default of Section 4(d) by virtue of the Executive:

(i) following the termination of employment, holding, strictly for portfolio purposes and as a passive investor, no more than five percent (5%) of the issued and outstanding shares of, or any other interest in, any corporation or other entity which is listed on any recognized stock exchange, that is a Competing Business; or

(ii) during the term of his employment, holding, strictly for portfolio purposes and as a passive investor, issued and outstanding shares of, or any other interest in, any corporation or other entity, the business of which corporation or other entity is in the same Business as the Company provided such corporation is not a Competing Business, and provided further that the Executive first obtains the Company's written consent, which consent will not be unreasonably withheld.

If the Executive holds issued and outstanding shares or any other interest in a corporation or other entity pursuant to Section 4(e)(ii) above, and following the acquisition of such shares or other interest the business of the corporation or other entity becomes a Competing Business, the Executive will promptly dispose of his shares or other interest in such corporation or other entity.

(f) Non-Solicitation. The Executive shall not, during the term of his employment and for the Restricted Period after the termination thereof for any reason, whether legal or illegal, either individually or in partnership or jointly or in conjunction with any person, firm, corporation or other entity, as principal, agent, consultant, advisor, employee, shareholder or in any manner whatsoever, without the prior written and informed consent of the Company, directly or indirectly:

(i) canvass or solicit the business of (or procure or assist the canvassing or soliciting of the business of) any Contact, or otherwise solicit, induce or encourage any Contact to curtail or cease its relationship with the Company, for any purpose which is competitive with the Business; or

(ii) accept (or procure or assist the acceptance of) any business from any Contact which business is competitive with the Business; or

(iii) be employed by or supply (or procure or assist the supply of) any goods or services to any Contact for any purpose which is competitive with the Business; or

(iv) employ, engage, offer employment or engagement to or solicit the employment or engagement of or otherwise entice away from or solicit, induce or encourage to leave the employment or engagement of the Company, any individual who is employed or engaged by the Company whether or not such individual would commit any breach of his contract or terms of employment or engagement by leaving the employ or the engagement of the Company, provided that the Executive shall be permitted, solely in a personal capacity, to provide letters of reference for individuals who are employed by the Company.

(g) Validity. The Executive expressly recognizes and acknowledges that it is the intent of the parties that his activities following the termination of his employment with the Company be restricted in the manner described in this Section 4, and acknowledges that good, valuable, and sufficient consideration has been provided in exchange for such restrictions. The Executive agrees that should any of the restrictions contained in this Section 4 be found to be unreasonable to any extent by a court of competent jurisdiction adjudicating upon the validity of the restriction, whether as to the scope of the restriction, the area of the restriction or the duration of the restriction, then such restriction shall be reduced to that which is in fact declared reasonable by such court, or a subsequent court of competent jurisdiction , requested to make such a declaration, in order to ensure that the intention of the parties is given the greatest possible effect.

5. INJUNCTIVE RELIEF

(a) The Executive understands and agrees that the Company has a material interest in preserving the relationships it has developed with its executives, customers and suppliers against impairment by competitive activities of a former executive. Accordingly, the Executive agrees that the restrictions and covenants contained in Section 4 are reasonably required for the protection of the Company and its goodwill and that the Executive's agreement to those restrictions and covenants by the execution of this Agreement, are of the essence to this Agreement and constitute a material inducement to the Company to enter into this Agreement and to employ the Executive, and that the Company would not enter into this Agreement absent such an inducement.

(b) The Executive understands and acknowledges that if the Executive breaches Section 4, that breach will give rise to irreparable injury to the Company for which damages are an inadequate remedy, and the Company may pursue injunctive relief for such breach in a court of competent jurisdiction.

6. TERMINATION

(a) The Executive may terminate his employment by giving at least three (3) months' advance notice in writing to the Company of the effective date of the resignation. The Company may waive such notice, in whole or in part, and if it does so, the Executive's resignation will become effective and his employment will cease on the date set by the Company in the notice of waiver.

(b) The Company may terminate the Executive's employment:

(i) without notice or payment in lieu thereof, for Cause. "Cause" means the Company's reasonable belief that any of the following has occurred: any breach of this Agreement by the Executive; any failure to perform assigned job responsibilities that continues unremedied for a period of thirty (30) days after written notice to the Executive by the Company; commission of a felony or misdemeanor or failure to contest prosecution for a felony or misdemeanor; the Company's reasonable belief that the Executive engaged in a violation of any statute, rule or regulation, any of which in the judgment of the Company is harmful to the business or to Company's reputation; the Company's reasonable belief that the Executive engaged in unethical practices, dishonesty or disloyalty; or any reason that would constitute Cause under the laws the State of Washington. Upon termination of the Executive's employment hereunder for Cause or upon the death or disability of the Executive, the Executive will have no rights to any unvested benefits or any other compensation or payments after the termination date or the last day of the month in which the Executive's death or disability occurred. For purposes of this Agreement, "disability" means the incapacity or inability of the Executive, whether due to accident, sickness or otherwise, as determined by a medical doctor acceptable to the Board of Directors of the Company, and confirmed in writing by such doctor, to perform the essential functions of the Executive's position under this Agreement, with or without reasonable accommodation (provided that no accommodation that imposes undue hardship on the Company will be required) for an aggregate of ninety (90) days during any period of one hundred eighty (180) consecutive days, or such longer period as may be required under disability law; or

(ii) at the Company's sole discretion for any reason, without cause, upon providing to the Executive an amount equal to twelve (12) months' Base Salary (the "Severance Amount "). The Company may pay the Severance Amount by way of one or more lump sum payments, by way of salary continuance or by a combination of both. The Executive shall only be entitled to the Severance Amount if, within thirty (30) days following the date of termination, the Executive executes and does not rescind, as may be permitted by law, a general release of claims in a form mutually acceptable to both parties.

(iii)

(c) In this Agreement, "Change of Control" means the first occurrence of any one of:

(i) the acquisition or continuing ownership by any person or persons acting jointly or in concert, directly or indirectly, of common shares or of convertible securities, which, when added to all other securities of the Company at the time held by such person or persons, or persons associated or affiliated with such person (collectively, the "Acquirors"), and assuming the conversion, exchange or exercise of convertible securities beneficially owned by the Acquirors, results in the Acquirors beneficially owning shares that would, notwithstanding any agreement to the contrary, entitle the holders thereof for the first time to cast more than 50% of the votes attaching to all shares in the capital of the Company that may be cast to elect directors;

(ii) the sale, lease or exchange or other disposition of all or substantially all of the Company's assets;

(iii) an amalgamation, merger, arrangement or other business combination (a "Business Combination") involving the Company that results in the security holders of the parties to the Business Combination, other than the Company, owning, directly or indirectly, shares of the continuing entity that entitle the holders thereof to cast more than 50% of the votes attaching to all shares in the capital of the continuing entity that may be cast to elect directors; or

(iv) the Company's Board of Directors, by resolution, determines that a Change of Control of the Company has occurred."

(d) If a Change of Control occurs and within twelve (12) months after the occurrence of a Change of Control, the Executive resigns his employment for Good Reason upon giving the Company not less than three (3) months' prior written notice of resignation; or at the Company's sole discretion, the Executive is terminated without cause within twelve (12) months after a Change of Control, the Executive will be entitled to receive the Change of Control Severance Amount (as defined below), which, in the case of termination, shall be instead of the Severance Amount. In this Agreement, "Good Reason" means one or more of the following events occurring without the Executive's written consent:

(i) a fundamental change in the Executive's status, position, remuneration, authority or responsibilities that does not represent a promotion from or represents an adverse change from the status, position, authority or responsibilities in effect immediately prior to the Change of Control;

(ii) a fundamental reduction in the Base Salary or retirement plans, health benefits, bonus potential or other compensation plans, practices, policies or programs provided to the Executive immediately prior to the Change of Control;

(iii) relocation of the Executive's principal place of employment to a place outside of the Seattle, Washington metropolitan area (which includes the City of Seattle, King County, Snohomish County and Pierce County within the Puget Sound region);

(iv) any request by the Company that the Executive participate in an unlawful act pursuant to the laws of the State of Washington; or

(v) any failure to secure the agreement of any successor company or other entity to the Company to fully assume the Company's obligations under this Agreement.

(e) In this Agreement, the "Change of Control Severance Amount" means an amount calculated as follows:

(i) an amount equal to twelve (12) months' Base Salary; plus

(ii) a bonus payment equal to the average of the actual bonus payments, if any, made to the Executive from the previous three (3) calendar years preceding the date of termination of employment, pro-rated for the then current calendar year up to and including the day of termination.

The Company may pay the Change of Control Severance Amount by way of one or more lump sum payments, by way of salary continuance or by a combination of both. The Executive shall only be entitled to such Change of Control Severance amount if, within thirty (30) days following the date of termination, the Executive executes and does not rescind, as may be permitted by law, a general release of claims in a form mutually acceptable to both parties.

7. RETURN OF MATERIALS UPON TERMINATION OF EMPLOYMENT

The Executive will return to the Company all Company documents, files, manuals, books, software, equipment, keys, equipment, identification or credit cards, and all other property belonging to Company upon the termination of his employment with the Company for any reason.

8. GENERAL PROVISIONS

(a) Non-Waiver. Failure on the part of either party to complain of any act or failure to act of the other of them or to declare the other party in default of this Agreement, irrespective of how long such failure continues, will not constitute a waiver by such party of their rights hereunder or of the right to then or subsequently declare a default.

(b) Severability. In the event that any provision or part of this Agreement is determined to be void or unenforceable in whole or in part, the remaining provisions, or parts thereof, will be and remain in full force and effect.

(c) **Entire Agreement.** This Agreement constitutes the entire agreement between the parties with respect to the employment of the Executive and supersedes any and all agreements, understandings, warranties or representations of any kind, written or oral, express or implied, including any relating to the nature of the position or its duration, and each of the parties releases and forever discharges the other of and from all manner of actions, causes of action, claim or demands whatsoever under or in respect of any agreement.

(d) **Survival.** The provisions of Sections l(e), 4, 5, 7 and 8(t) will survive the termination of this Agreement.

(e) **Modification of Agreement.** Any modification of this Agreement must be in writing and signed by both the Company and the Executive or it will have no effect and will be void.

(t) **Disputes.** Except for the right of the Company and the Executive to seek injunctive relief in court, any controversy, claim or dispute of any type arising out of or relating to the Executive's employment or the provisions of this Agreement shall be resolved in accordance with this Section 8(t) regarding resolution of disputes, which will be the sole and exclusive procedure for the resolution of any disputes. This Agreement shall be enforced in accordance with the Federal *Arbitration Act,* the enforcement provisions of which are incorporated herein by this reference. Matters subject to these provisions include, without limitation, claims or disputes based on statute, contract, common law and tort and will include, for example, matters pertaining to termination, discrimination, harassment, compensation and benefits. Matters to be resolved under these procedures also include claims and disputes arising out of statutes such as the *Fair Labor Standards Act,* Title VII of the *Civil Rights Act,* the *Age Discrimination in Employment Act,* the Washington *Minimum Wage Act,* and the Washington Law Against Discrimination. Nothing in this provision is intended to restrict the Executive from submitting any matter to an administrative agency with jurisdiction over such matter.

(i) Mediation. The Company and the Executive will make a good faith attempt to resolve any and all claims and disputes by submitting them to mediation in Seattle, Washington, USA, before resorting to arbitration or any other dispute resolution procedure. ·The mediation of any claim or dispute must be conducted in accordance with the then-current JAMS (formerly Judicial Arbitration and Mediation Services, Inc.) procedures for the resolution of employment disputes by mediation, by a mediator who has had both training and experience as a mediator of general employment and commercial matters. If the parties to this Agreement cannot agree on a mediator, then the mediator will be selected by JAMS in accordance with JAMS' strike list method. Within thirty (30) days after the selection of the mediator, the Company and the Executive and their respective attorneys will meet with the mediator for one (1) mediation session of at least four (4) hours duration. If the claim or dispute cannot be settled

during such mediation session or mutually agreed continuation of the session, either the Company or the Executive may give the mediator and the other party to the claim or dispute written notice declaring the end of the mediation process. All discussions connected with this mediation provision will be confidential and treated as compromise and settlement discussions. Nothing disclosed in such discussions, which is not independently discoverable, may be used for any purpose in any later proceeding. The mediator's fees will be paid in equal portions by the Company and the Executive, unless the Company agrees to pay all such fees.

(ii) Arbitration. If any claim or dispute has not been resolved in accordance with Section 8(f)(i), then the claim or dispute will be determined by arbitration in accordance with the then-current JAMS employment arbitration rules and procedures, except as modified herein. The arbitration will be conducted by a sole neutral arbitrator who has had both training and experience as an arbitrator of general employment and commercial matters and who is and for at least ten (10) years has been, a partner, a shareholder or a member in a law firm. If the Company and the Executive cannot agree on an arbitrator, then the arbitrator will be selected by JAMS in accordance with Rule 15 of the JAMS employment arbitration rules and procedures. No person who has served as a mediator under the mediation provision, however, may be selected as the arbitrator for the same claim or dispute. Reasonable discovery will be permitted and the arbitrator may decide any issue as to discovery. The arbitrator may decide any issue as to whether or as to the extent to which any dispute is subject to the dispute resolution provisions in this Section 8(f) and the arbitrator may award any relief permitted by law. The arbitrator must base the arbitration award on the provisions of this Section 8(t) and applicable law and must render the award in writing, including an explanation of the reasons for the award. Judgment upon the award may be entered by any court having jurisdiction of the matter, and the decision of the arbitrator will be final and binding. The statute of limitations applicable to the commencement of a lawsuit will apply to the commencement of an arbitration under this Section 8(f)(ii). The arbitrator's fees will be paid in equal portions by the Company and the Executive, unless the Company agrees to pay all such fees.

(g) **Governing Law**. Except as provided in Section 8(f), above, the validity, construction and performance of this Agreement shall be governed by the laws of the State of Washington, USA without regard to the conflicts of law provisions of such laws. The King County Superior Court, Seattle, Washington, USA shall have exclusive jurisdiction of any lawsuit arising from or relating to the Executive's employment with, or termination from, the Company, or arising from or relating to this Agreement. The Executive consents to such venue and personal jurisdiction.

(h) **Reimbursement of Legal Fees**. The Company will reimburse the Executive for all reasonable and receipted legal fees incurred by the Executive in the negotiation, drafting, and completion of this Agreement Unless otherwise agreed, the parties shall each bear their own costs and attorneys' fees incurred in any litigation or dispute relating to the interpretation or enforcement of this Agreement.

(i) **Tax Considerations.** The Executive acknowledges that amounts paid pursuant to this Agreement may have tax consequences pursuant to the Code or under local, state or international tax laws. The Executive acknowledges that he is relying solely and exclusively on his own professional tax and investment advisors with respect to any and all such matters (and is not relying, in any manner, on the Company or any of its employees or representatives). The Executive understands and agrees that any and all tax consequences resulting from payments, or the right to payments, under this Agreement are solely and exclusively the responsibility of the Executive, without any expectation or understanding that the Company or any of its employees or representatives will pay or reimburse the Executive for such taxes. It is intended that this Agreement shall comply with Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder, and the provisions of this Agreement shall be construed and administered accordingly.

(j) **Independent Legal Advice**. The Executive agrees that the contents, terms and effect of this Agreement have been explained to his by a lawyer and are fully understood. The Executive further agrees that the consideration described aforesaid is accepted voluntarily for the purpose of employment with the Company under the terms and conditions described above.

IN WITNESS WHEREOF this Agreement has been executed by the parties hereto as of the date and year first above written.

Signed, Sealed and Delivered by KIRK ROSEMARK in the presence of:

Witness:
Address:

Occupation:

/s/ Kirk Rosemark
Kirk Rosemark

PROTIVA BIOTHERAPEUTICS (USA) INC.

Per: /s/ Mark J. Murray
Mark J. Murray

Exhibit 10.41

EXECUTION VERSION

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

LICENSE AGREEMENT

by and between

DICERNA PHARMACEUTICALS, INC.,

on the one hand,

and

PROTIVA BIOTHERAPEUTICS INC.

and

TEKMIRA PHARMACEUTICALS CORPORATION

on the other hand

Dated: November 16, 2014

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

TABLE OF CONTENTS
(continued)

LICENSE AGREEMENT

This LICENSE AGREEMENT (this "Agreement") is entered into as of November 16, 2014 (the "Effective Date"), by and between Dicerna Pharmaceuticals, Inc., a Delaware corporation with offices at 480 Arsenal Street, Building 1, Suite 120, Watertown, MA 02472 USA and its Affiliates ("Dicerna"), on the one hand, and Protiva Biotherapeutics Inc., a British Columbia corporation with a principal place of business at 100-8900 Glenlyon Parkway, Burnaby, B.C., Canada V5J 5J8 ("Protiva"), and Tekmira Pharmaceuticals Corporation, a British Columbia corporation with a principal place of business at 100-8900 Glenlyon Parkway, Burnaby, B.C., Canada V5J 5J8 ("Tekmira"), on the other hand.

RECITALS

WHEREAS, Protiva and its Affiliates (as defined below) possess, and develop and improve from time to time Protiva Patents and LNP Technology (each as defined below);

WHEREAS, Dicerna possesses and develops and improves from time to time intellectual property relating to Dicerna Material (as defined below);

WHEREAS, pursuant to a Material Transfer Agreement, dated August 13, 2014, among Dicerna, Protiva and Tekmira (the "MTA"), the parties performed certain studies in order to determine the potential utility of the Licensed Intellectual Property (as defined below) as it relates to the Product (as defined below) as the basis of this Agreement, with the intent to provide for further studies and activities to formulate, develop for regulatory approval, and commercialize one or more products;

WHEREAS, the Parties are, contemporaneously herewith, entering into a Supply Agreement, pursuant to which Protiva shall Manufacture and supply to Dicerna the Product for certain purposes in accordance with the terms set forth therein;

WHEREAS, Protiva desires to grant Dicerna licenses to the Protiva Intellectual Property (as defined below) to Develop, Manufacture and Commercialize (each as defined below) Products directed to treatment of PH1 upon the terms and subject to the conditions set forth in this Agreement;

WHEREAS, Tekmira desires to grant Dicerna licenses to the Tekmira Patents (as defined below) to Develop, Manufacture and Commercialize Products directed to treatment of PH1 upon the terms and subject to the conditions set forth in this Agreement; and

WHEREAS, Tekmira is the parent of Protiva and is willing to guarantee Protiva's performance under this Agreement, upon the terms and subject to the conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt of which is hereby acknowledged, Dicerna and Protiva enter into this Agreement effective as of the Effective Date:

ARTICLE I –DEFINITIONS

1.1 General. When used in this Agreement, each of the following terms, whether used in the singular or plural, shall have the meanings set forth in this Article I.

"Affiliate" means, with respect to a Person, any corporation, company, partnership, joint venture or firm which controls, is controlled by, or is under common control with such Person. For purposes of the foregoing sentence, "control" means (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or shares having the right to vote for the election of directors, or (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest with the power to direct the management and policies of such non-corporate entities.

"Agreement" has the meaning set forth in the introductory paragraph.

"Applicable Laws" means all applicable laws, statutes, rules, regulations, guidelines, guidances, ordinances, orders, decrees, writs, judicial or administrative decisions and the like of any nation or government, any state or other political subdivision thereof, any entity exercising executive, judicial, regulatory or administrative functions of or pertaining to government (including any Governmental Authority), any tribunal or arbitrator of competent jurisdiction, and any trade organization whose regulations have the force of law.

"Arbitrators" has the meaning set forth in Section 9.7(b).

"CMO" means a contract manufacturing organization.

"Code" has the meaning set forth in Section 2.4(b).

"Commercialize" or "Commercialization" means, excluding Manufacturing, any and all activities directed to marketing, promoting, distributing, importing, having imported, exporting, having exported, selling and having sold products and services, including, subject to the terms of this Agreement, having Third Parties conduct such activities on behalf of the Person receiving the rights to Commercialize.

"Commercially Reasonable Efforts" means the efforts and resources that would reasonably be used (including the promptness with which such efforts and resources would be applied) by a similarly sized company within the biopharmaceutical industry for the pharmaceutical or clinical development, manufacture or commercialization of a pharmaceutical product of similar market and profit potential and at a similar stage in development or product life as compared to the Product or for the other activities to which this term applies.

"Confidential Information" means all confidential information and confidential materials, patentable or otherwise, of a Party disclosed by or on behalf of such Party to the other Party before, on or after the Effective Date in connection with the discussions and negotiations pertaining to, or in the course of performing, this Agreement, the Supply Agreement or the Quality Agreement, including the terms of such agreements, including chemical substances, equipment, data, reports, Know-How, sources of supply, patent positioning, business plans, and also each Party's proprietary and confidential information of Third Parties in possession of such Party under an obligation of confidentiality, whether or not related to making, using or selling the Product.

"Control," "Controls" or "Controlled by" means, with respect to Licensed Intellectual Property, the possession of (whether by ownership or license, other than pursuant to this Agreement), or the ability of Protiva or Tekmira, as applicable, to grant access to, or a license or sublicense of, the Licensed Intellectual Property as provided for herein.

"Cover," "Covers" or "Covered by" means, with respect to the Product, that, but for ownership of or a license or sublicense granted under a Valid Claim of a Protiva Patent, the Development, Manufacture, or Commercialization with respect to the Product would infringe such Patent (or, if such Patent is a patent application, would infringe a patent issued from such patent application based on the claims pending in the patent application as of the moment the determination of "Cover," "Covers," or "Covered by" is being made).

"CTA" means a Clinical Trial Application filed with the national competent authority in an EU member state for regulatory approval of a clinical trial of the Product, including all amendments and supplements to the application.

"Develop," "Developing" or "Development" means Manufacturing and any and all activities and studies required to develop products and services for Regulatory Approval or for Commercialization, including, subject to the terms of this Agreement, having Third Parties conduct such activities and studies on behalf of the Person receiving the rights to Develop.

"Dicerna" has the meaning set forth in the Preamble.

"Dicerna Indemnitees" has the meaning set forth in Section 7.1.

"Directed to" means, in respect of any Product, the initial Development Program, the initial IND and the initial NDA submitted with a Regulatory Authority for Regulatory Approval in respect of such Product are intended for the treatment of PH1.

"Disclosing Party" means the Party that discloses its Confidential Information.

"Discover", "Discovering" or "Discovery" means any and all research or discovery activities in respect of products and services, including, subject to the terms of this Agreement, having Third Parties conduct such activities on behalf of the Person receiving the rights to Discover.

"Dispute" has the meaning set forth in Section 9.7(b).

"DMF" means Protiva's Drug Master File(s) filed with any Regulatory Authority covering the Manufacture of Product.

"Effective Date" has the meaning set forth in the introductory paragraph.

"EMA" means the European Medicines Agency, a body of the European Union and established by Regulation (EC) No 726/2004 of the European Parliament and of the Council of March 31, 2004, or any successor agency(ies) thereof performing similar functions.

"Enforcement Costs" has the meaning set forth in Section 5.3(c)(ii)(a).

"Enforcing Party" has the meaning set forth in Section 5.3(c)(i).

"European Union" or "EU" means the European Union which, following the entry into force of the Treaty of Lisbon on December 1, 2009, replaced and succeeded the European Community established by the Treaty of Rome signed on March 15, 1957.

"Excluded Target" means [***].

"FDA" means The Food and Drug Administration of the United States Department of Health and Human Services, or any successor agency(ies) thereof performing similar functions.

"Field" means treatment, prevention or diagnosis of (i) human disease or other medical disorder and (ii) animal (excluding fish and arthropods) disease or other medical disorder; provided, however, that the term "Field" shall not include any Product directed to any Excluded Target.

"Final Inventory" has the meaning set forth in Section 8.6(b).

"First Commercial Sale" means the first *bona fide* sale of the Product to a non-Sublicensee Third Party in an arm's length transaction after Regulatory Approval in response to a submission of an NDA.

"GAAP" means United States generally accepted accounting principles as in effect from time to time, consistently applied.

"Governmental Authority" means any United States or supra-national, foreign, federal, state, local, provincial, or municipal government, governmental, regulatory or administrative authority, agency, body, branch, bureau, instrumentality or commission or any court, tribunal, or judicial or arbitral body having relevant jurisdiction over a subject matter, including any Regulatory Authority.

"HAO1" means Hydroxyacid Oxidase (Glycolate Oxidase) 1, a gene transcribing for the protein 2-hydroxyacid oxidase 1.

"IND" means, with respect to the Product, an Investigational New Drug Application filed with respect to the Product, as described in the FDA regulations, including all amendments and supplements to the application, and any equivalent filing with any Regulatory Authority outside the United States.

"Indemnified Party" has the meaning set forth in Section 7.3.

"Indemnifying Party" has the meaning set forth in Section 7.3.

"Insolvent Party" has the meaning set forth in Section 8.5.

"Joint Patent" has the meaning set forth in the Supply Agreement.

"Know-How" means biological materials and other tangible materials, information, data, inventions, practices, methods, methodologies, protocols, formulas, formulations, oligonucleotide sequences, knowledge, trade secrets, processes, assays, skills, experience, techniques and results of experimentation and testing, patentable or otherwise.

"Licensed Intellectual Property" means the Protiva Intellectual Property and the Tekmira Patents.

"Lipid Nanoparticles" means lipid particles (plus or minus encapsulated drug), lipid components of lipid particles, formulations comprising lipid particles and methods of manufacturing lipid particles.

"LNP Technology" means the intellectual property (other than Protiva Patents) covering nucleic acid delivery technology directed to (i) the composition of matter of Lipid Nanoparticles, (ii) the method of use of Lipid Nanoparticles, or (iii) the method of manufacturing Lipid Nanoparticles (plus or minus encapsulated drug), in each case, Controlled by Protiva.

"Losses" has the meaning set forth in Section 7.1.

"MAA" means a Marketing Authorization Application and all amendments and supplements thereto for the Product filed with the EMA or a national competent authority in an EU member state, including all documents, data, and other information concerning the Product that are necessary for obtaining Regulatory Approval to place the Product on the market in the EU or in an EU member state.

"Manufacture" or "Manufacturing" means, with respect to a Lipid Nanoparticle or product, all activities associated with the production, manufacture, testing, fill/finish, packaging, labeling, releasing or processing of such raw material or product, including having Third Parties conduct such activities on behalf of the Person having the rights to Manufacture.

"MTA" has the meaning set forth in the recitals.

"Milestone Payment" has the meaning set forth in Section 3.1(b).

"NDA" means the New Drug Application and all amendments and supplements thereto for the Product filed with the FDA, including all documents, data, and other information concerning the Product that are necessary for gaining Regulatory Approval to market and sell the Product in the United States.

"Net Sales" means [***]

"New York Courts" has the meaning set forth in Section 9.7(c).

"Non-PH1 Patent Infringement Action" has the meaning set forth in Section 5.3(b).

"Party" means either Dicerna or Protiva (or, where specified, Tekmira); "Parties" means Dicerna and Protiva (and, where specified, Tekmira).

"Patent" means any patent (including any reissue, extension, substitution, confirmation, re-registrations, re-examination, revival, supplementary protection certificate, patents of addition, continuation, continuation-in-part, or divisional) or patent application (including any provisional application, non-provisional patent application, continuation, continuation-in-part, divisional, PCT international applications or national phase applications), in each case whether in the U.S. or any foreign country.

"Patent Infringement Action" has the meaning set forth in Section 5.3(c).

"Permitted Contractor" means a Third Party (*e.g.* a contractor or consultant) that performs the activities assigned to Protiva under this Agreement or the Supply Agreement under a *bona fide* contract services arrangement for which Protiva has received Dicerna's prior written consent (such consent not to be unreasonably withheld, conditioned or delayed) as to the identity of the Third Party and the scope of activities to be performed by such Third Party.

"Person" means an individual, corporation, limited liability company, syndicate, association, trust, partnership, joint venture, unincorporated organization, government agency or any agency, instrumentality or political subdivision thereof, or other entity.

"PH1" means Primary Hyperoxaluria 1.

"PH1 Patent Infringement Action" has the meaning set forth in Section 5.3(c).

"Pivotal Trial" means a (a) clinical trial that is designed to study the safety and efficacy of the Product (and to help evaluate its overall risks and benefits) and is intended to form the primary basis for Regulatory Approval for Commercialization of the Product in one or more countries in the Territory, (b) clinical trial that Dicerna or its Affiliate expressly refers to in a press release as a "pivotal" trial or study, or (c) clinical trial that satisfies either of the following: (i) the protocol for that clinical trial shall have been reviewed by the FDA or other relevant Regulatory Authority under its procedures for reaching agreement on the design and size of clinical trials intended to form the primary basis of Regulatory Approval for Commercialization of the Product, such as the FDA Guidance for Industry: Special Protocol Assessment (May 2002) (or equivalent guidance issued in the future), and any comments from the FDA or other relevant Regulatory Authority on that protocol shall have been incorporated in the final protocol for that clinical trial or resolved to the satisfaction of the FDA or other relevant Regulatory Authority as evidenced by further written communications from the FDA or other relevant Regulatory Authority; or (ii) the FDA or other relevant Regulatory Authority has determined in writing that the clinical trial can be considered as the primary basis for Regulatory Approval for Commercialization of the Product. For the avoidance of doubt, a clinical trial satisfying any of the requirements sufficient to render it a Pivotal Trial under this definition shall be considered a Pivotal Trial even if more than one such trial is required by the FDA or other Regulatory Authority for Regulatory Approval for Commercialization of the Product. Such a trial shall be considered initiated on the later of: (1) the date that it first satisfied the requirements of this definition; or (2) the date of the first dosage of a patient in such trial.

"Proceeds" has the meaning set forth in Section 5.3(c)(ii).

"Product" means one or more formulations using Licensed Intellectual Property formulated with one or more nucleic acid compositions (including oligonucleotide constructs that are designed to function using RNA interference) for the treatment of PH1.

"Product Composition Patent" has the meaning set forth in the Supply Agreement.

"Protiva" has the meaning set forth in the Preamble.

"Protiva Indemnitees" has the meaning set forth in Section 7.2.

"Protiva Intellectual Property" means, collectively, the Protiva Patents, LNP Technology and Confidential Information of Protiva.

"Protiva Materials" means all materials not supplied by or on behalf of Dicerna, its Affiliates or their Sublicensee that Protiva uses for the performance of the Studies and the Services.

"Protiva Patents" means all Patents Controlled by Protiva that include claims that Cover (i) the composition of matter of Lipid Nanoparticles, (ii) the method of use of Lipid Nanoparticles, or (iii) the method of Manufacturing Lipid Nanoparticles (plus or minus encapsulated drug), in each case that are useful or necessary for the Development, Manufacture or Commercialization of the Product, or otherwise Cover any Product, including the Patents listed on Exhibit A, but excluding the Patents listed on Exhibit C and all Joint Patents.

"Quality Agreement" means the quality agreement dated as of the date hereof between the Parties.

"Receiving Party" means the Party that receives Confidential Information of the other Party.

"Record Retention Period" has the meaning set forth in Section 3.3(b).

"Regulatory Approval" means any registration, license, approval or authorization from any Regulatory Authority required for the Development, Manufacture or Commercialization of the Product in a regulatory jurisdiction anywhere in the world.

"Regulatory Authority" means any federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity anywhere in the world with authority over the Development, Manufacture or Commercialization of the Product under this Agreement. The term "Regulatory Authority" includes the FDA, the EMA, the European Commission and relevant national competent authorities in the EU member states.

"Royalty" has the meaning set forth in Section 3.2(a).

"Royalty Payment Term" means, for any Product on a country-by-country basis, the term beginning on the Effective Date and ending on the later of (i) the last to expire Valid Claim of a Royalty Term Patent infringed by such Product in such country, (ii) the expiration of the data exclusivity granted by the Regulatory Authority in such country in respect of such Product, and (iii) the tenth (10th) anniversary of the First Commercial Sale of such Product in such country.

"Royalty Term Patents" means (i) any Protiva Patents or Tekmira Patents provided such Patents have been identified to Dicerna in writing at any time during the Term and Protiva has provided Dicerna with a copy thereof, and (ii) subject to Section 7.3(e) of the Supply Agreement, the Product Composition Patent, if any.

"Services" has the meaning set forth in the Supply Agreement.

"Solvent Party" has the meaning set forth in Section 8.5.

"Studies" has the meaning set forth in the MTA.

"Sublicense Agreement" has the meaning set forth in Section 2.2(a).

"Sublicensee" means a Third Party to whom Dicerna has granted a sublicense in a Sublicense Agreement pursuant to the terms hereof.

"Supply Agreement" means the Development and Supply Agreement dated as of the date hereof between the Parties.

"Tekmira Patents" means all Patents Controlled by Tekmira that include claims that Cover (i) the composition of matter of Lipid Nanoparticles, (ii) the method of use of Lipid Nanoparticles that are useful or necessary for the Development, Manufacture or Commercialization of the Product, or otherwise Cover any Product, including the Patents listed on Exhibit B, but excluding the Patents listed on Exhibit C, or (iii) the method of manufacturing Lipid Nanoparticles (plus or minus encapsulated drug).

"Term" means the term described in Section 8.1.

"Territory" means worldwide.

"Third Party" means any Person other than Protiva, Dicerna or any of their respective Affiliates.

"Third Party Claim" has the meaning set forth in Section 7.3.

"Valid Claim" means a claim of: (a) an issued and unexpired Protiva Patent, Tekmira Patent or Product Composition Patent, which claim has not been revoked or held unenforceable, unpatentable or invalid by a decision of a court or other governmental agency of competent jurisdiction, which is not appealable or has not been appealed within the time allowed for appeal, and which has not been abandoned, disclaimed, denied, or admitted to be invalid or unenforceable through reissue, re-examination or disclaimer or otherwise; or (b) a patent application that is a Protiva Patent, Tekmira Patent or Product Composition Patent that has not been pending for more than [***] after the original priority date for said application, and that has not been cancelled, withdrawn or abandoned, or finally rejected by an administrative agency action, and which is not appealable or has not been appealed within the time allowed for appeal.

1.2 Interpretation.

(a) Words such as "herein", "hereinafter", "hereof" and "hereunder" refer to this Agreement as a whole and not merely to a section, paragraph or clause in which such words appear, unless the context otherwise requires. Enumerative references to sections, paragraphs or clauses, or exhibits, without reference to an explicit agreement, document or exhibit, refer to this Agreement or exhibits attached to this Agreement, as applicable. The singular shall include the plural, and each masculine, feminine and neuter reference shall include and refer also to the others, unless the context otherwise requires. The words "include", "includes" and "including" are deemed to be followed by "without limitation" or words of similar import. Except where the context otherwise requires, the word "or" is used in the inclusive sense (and/or). All dollar amounts are expressed in U.S. dollars.

(b) In the event of any direct conflict between this Agreement and the Supply Agreement, the provisions of this Agreement shall prevail; provided, however, that if either this Agreement or the Supply Agreement expressly contemplates such conflict, the terms of such agreement shall control.

ARTICLE II –LICENSE GRANTS AND RELATED RIGHTS

2.1 License Grants to Dicerna.

(a) Protiva hereby grants to Dicerna, and Dicerna hereby accepts, a worldwide, sublicensable (subject to Section 2.2), irrevocable (except as set forth in Article VIII), perpetual (subject to Article VIII) right and license under Protiva Intellectual Property (including the Patents listed on Exhibit A) to Develop, Manufacture and Commercialize Products that both (i) are Directed to treatment of PH1, and (ii) are for use in the Field.

(b) Tekmira hereby grants to Dicerna, and Dicerna hereby accepts, a worldwide, sublicensable (subject to Section 2.2), irrevocable (except as set forth in Article VIII), perpetual (subject to Article VIII) right and license under Tekmira Patents (including the Patents listed on Exhibit B) to Develop, Manufacture and Commercialize Products that both (i) are Directed to treatment of PH1, and (ii) are for use in the Field.

(c) The licenses in Sections 2.1(a) and 2.1(b) are exclusive (even as to Protiva and Tekmira), except with respect to the license rights granted by Protiva or Tekmira to the Licensed Intellectual Property prior to the Effective Date set forth on Exhibit D.

2.2 Sublicensing.

(a) Dicerna may grant written sublicenses (each, a "Sublicense Agreement") to the Licensed Intellectual Property (subject to Section 2.4(b)) solely to Develop, Manufacture and Commercialize Products are solely directed to the treatment of PH1 for use in the Field, including to CMOs; provided, however, that any sublicense granted by Dicerna shall be subject and, except as set forth below, subordinate to the terms and conditions of this Agreement and shall contain terms and conditions consistent with those in this Agreement. Dicerna shall assume full responsibility for the performance of all obligations and observance of all terms herein under the licenses granted to it. If Dicerna becomes aware of a material breach of any Sublicense Agreement by a Sublicensee, Dicerna shall promptly notify Protiva of the particulars of same and take Commercially Reasonable Efforts to enforce the terms of such Sublicense Agreement. All Sublicense Agreements shall provide that the Sublicensee may only use the Confidential Information of Protiva in accordance with terms of this Agreement applicable to Dicerna's use of such Confidential Information and subject to provisions at least as stringent as those set forth in Article VI. Dicerna shall use Commercially Reasonable Efforts to make Protiva an express third-party beneficiary of each CMO Agreement (as defined in the Supply Agreement), and Protiva shall be an express third-party beneficiary of any other Sublicense Agreement, including the provisions related to use and disclosure of Protiva's Confidential Information. Upon expiration or termination of this Agreement, and provided any Sublicensee is in good standing and has not contributed to the breach or other circumstance that led to any termination, such Sublicense Agreement will remain in full force and effect and Dicerna will be required, until the expiration or termination of each Sublicense Agreement, to: (i) remit to Protiva all royalties or other payments Dicerna receives from any Sublicensee regarding the sale or other disposition of any Products; and (ii) enforce the terms of the Sublicense Agreement at the direction and expense of Protiva.

(b) Unless otherwise provided in this Agreement, Dicerna shall notify Protiva within [***] after execution of a Sublicense Agreement and provide a copy of the fully executed Sublicense Agreement to Protiva within the same time, which shall be treated as Confidential Information of Dicerna under Article VI. Dicerna may redact any financial or other competitively sensitive information from any Sublicense Agreement prior to disclosure to Protiva.

2.3 Grant Back. Dicerna agrees to grant and hereby grants (a) to Protiva a non-exclusive, non-royalty-bearing, sublicensable right and license under the Licensed Intellectual Property solely for purposes of performing its obligations under this Agreement, the Supply Agreement and the Quality Agreement and (b) to Tekmira a non-exclusive, non-royalty-bearing, sublicensable right and license under the Tekmira Patents solely for purposes of performing its obligations under this Agreement, the Supply Agreement and the Quality Agreement.

2.4 Retained Rights.

(a) Each of Protiva and Tekmira expressly retains any rights not expressly granted to Dicerna under this Article II (or otherwise under this Agreement) or under the Supply Agreement. Nothing in Section 2.1 limits Protiva's ability to perform its obligations under this Agreement or the Supply Agreement.

(b) Notwithstanding anything to the contrary contained herein but subject to terms set forth in the Supply Agreement, including Section 7.2 of the Supply Agreement, (i) neither Tekmira nor Protiva is granting to Dicerna a license to Research, Develop or otherwise improve upon the Lipid Nanoparticles based on Tekmira Patents or Protiva Intellectual Property or Confidential Information it has received from Tekmira or Protiva (but, for clarity, Dicerna may otherwise Research, Develop and improve upon Lipid Nanoparticles without the use of Tekmira Patents, Protiva Intellectual Property or Confidential Information it has received from Tekmira or Protiva); and (ii) no license is provided from either Party to the other to use its Know-How, except as may be necessary or useful for a Party to fulfill its obligations to any Regulatory Authority (subject to the penultimate sentence in Section 6.3) or necessary for a Party to perform the activities required or expressly permitted under this Agreement, the Supply Agreement or the Quality Agreement and with respect to the Product.

2.5 Rights in Bankruptcy. All licenses and rights to licenses granted under or pursuant to this Agreement by Protiva to Dicerna are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the United States Bankruptcy Code (the "Code"), licenses of rights to "intellectual property" as defined under Section 101(35A) of the Code. Dicerna, as a licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the Code, and that upon commencement of a bankruptcy proceeding by or against Protiva (or any Affiliate of Protiva that owns or Controls Protiva Intellectual Property or Tekmira Patents) under the Code, Dicerna shall be entitled to a complete duplicate of, or complete access to (as Dicerna deems appropriate), any such intellectual property and all embodiments of such intellectual property.

2.6 Contractors. Notwithstanding Sections 2.1 and 2.2, Protiva may utilize Permitted Contractors to perform its obligations in accordance with this Agreement or the Supply Agreement provided that Protiva shall not share Dicerna's Confidential Information with any Permitted Contractor unless Protiva and its Permitted Contractor shall have executed a binding agreement which contains (i) obligations of confidentiality, non-use, and invention assignment consistent with and at least as protective of Dicerna's rights as the provisions of this Agreement, and (ii) other reasonable and customary terms and conditions, so as to enable Protiva to comply with its obligations under this Agreement and the Supply Agreement.

ARTICLE III –FINANCIAL PROVISIONS

3.1 Upfront Payment and Milestone Payments.

(a) On or before the third (3rd) day following the Effective Date, Dicerna shall make a one-time fully-earned, non-refundable and non-creditable payment to Protiva in the amount of US $2,500,000 as partial consideration for the rights granted under this Agreement.

(b) Subject to the terms and conditions of this Agreement, Dicerna shall make the following fully-earned, non-refundable and non-creditable milestone payments upon the achievement of the specified milestones with respect to a Product (each a "Milestone Payment"):

Milestone Event	**Milestone Fee**
[***]	[***]
[***]	[***]
[***]	[***]

(c) If there is more than one Product in Development or Commercialization at the same time, Dicerna shall be obligated to make each Milestone Payment for every Product that achieves the milestone set forth above (i.e., if there is more than one Product that satisfies the applicable milestone event, more than one Milestone Payment for the milestone event shall be owed by Dicerna to Protiva); provided, however, that if the first milestone event in Section 3.1(b) has been reached for a Product (i.e., initiation of a first Pivotal Trial) and the Milestone Payment made, but such Product does not ultimately obtain Regulatory Approval in the United States, any EU market or the market of any EU member state, then on any subsequent Product there will not by any Milestone Payment due upon the initiation of a first Pivotal Trial for that subsequent Product.

(d) Dicerna shall act in good faith in determining whether to designate its clinical trials for Products as "pivotal trials" and shall not manipulate the structure of its clinical trials for Products that would otherwise meet the definition of a Pivotal Trial in such a manner as to avoid meeting such definition for purposes of delaying payment of the applicable Milestone Payment.

3.2 Royalty Payments.

(a) In addition to the payments set forth in Section 3.1, during the Royalty Payment Term, Dicerna shall pay to Protiva the following royalty amounts with respect to the Net Sales of Products (the "Royalty"):

Royalty Table	
Net Sales	**Royalty (Percent of Net Sales)**
For all cumulative, worldwide Net Sales less than [***]	[***]
For cumulative, worldwide Net Sales equal to or exceeding [***] but less than [***]	[***]
For cumulative, worldwide Net Sales equal to or exceeding [***]	[***]

(b) For clarity, the application of the Royalty tiers in the above Royalty Table will be progressive, meaning that the Royalty percentage in each tier only applies to Net Sales in that tier and not retroactively to prior Net Sales in a lower tier.

(c) No royalty offsets shall apply for Third Parties owed royalties by Dicerna for DCR-PH1 or any adjuvant or additional active substance. The Royalties are inclusive of royalties, if any, owed by Protiva to Third Parties for any intellectual property licensed to Dicerna under this Agreement, which third-party royalties are exclusively the obligation of Protiva.

3.3 Royalty Reports; Expense Reports; Records and Audits.

(a) Within [***] after the end of each calendar quarter during the Royalty Payment Term until the calendar quarter after which Dicerna or any of its Affiliates or Sublicensees is no longer selling any Products, Dicerna shall provide to Protiva a written report (in electronic form) that includes, for each calendar quarter, (i) the gross invoiced sales of the Product sold during such quarter, (ii) the Net Sales of the Products, and (iii) the calculated amount of the Royalty owed by Dicerna pursuant to Section 3.2 in respect of the sale of the Products. If reasonably requested by Protiva, Dicerna will also provide non-binding estimates for Net Sales and Royalties after the calendar quarter end but prior to delivery of the written report.

(b) Until the fifth (5th) anniversary of the date any book or record is created or such longer period required by Applicable Law (the "Record Retention Period"), Dicerna shall maintain and retain complete and accurate books of account and records covering all transactions relating to payment of amounts that may be due under Section 3.2 of this Agreement. Upon the reasonable advance notice of Protiva (of at least [***]), Dicerna shall make such books and records available for inspection and audit by Protiva's authorized representative (which shall be a national certified public accounting firm designated by Protiva), subject to reasonable precautions to protect the confidential information of Dicerna. Protiva may not audit Dicerna's books and records more than once in any [***]. All audits must be conducted during normal business hours of Dicerna and conducted in a manner so as to minimize the impact on the normal operations of Dicerna. The accounting firm conducting any such audit must provide a report of its findings of any audit to both Parties, may only identify in such report whether the amount of Royalties paid was correct and the actual amount of Royalties payable and may not disclose any other Confidential Information of Dicerna. The auditor's report and all other information disclosed to the auditor or generated by the auditor in such audit will be the Confidential Information of Dicerna. Protiva shall pay the cost of such audits unless it discovers that Dicerna has underreported aggregate Net Sales during any year in the Record Retention Period by an amount of [***] or more, in which case the costs of such audit shall be borne by Dicerna. If an audit reveals an underpayment or overpayment, the Party responsible for making payment shall promptly pay to the other Party the amount of the underpayment or overpayment discovered unpaid under this Section 3.3(b), subject to Section 3.4(d).

3.4 Payment Procedure.

(a) Remittance of payments under this Article III shall be made by means of wire transfer of immediately available funds to a bank account designated in advance in writing by Protiva. All amounts payable to Protiva under this Agreement shall be paid in United States Dollars. In those cases in which the amounts due in United States Dollars is calculated based on one or more currencies other than United States Dollars, such amounts shall be converted into United States Dollars using the spot exchange rate for the relevant currency on the date of the applicable transaction, as such exchange rate is published by the Wall Street Journal (or comparable publication if not available).

(b) Any Milestone Payment owed pursuant to Section 3.1(b) shall be paid by Dicerna to Protiva within [***] after the occurrence of the event triggering the payment of such Milestone Payment.

(c) Any Royalty shall accrue in accordance with Section 3.2 during the applicable Royalty Payment Term. Royalty obligations that accrue during a calendar quarter shall be paid within [***] after the end of such quarter.

(d) Any payments due from one Party to the other Party under this Article III that are not paid by the date such payments are due shall bear interest from the date such unpaid payments are due until paid in full at the lesser of: (i) [***] per month; or (ii) the highest amount of interest permitted by Applicable Law. The foregoing interest shall be in addition to any other remedies that either Party may have pursuant to this Agreement.

(e) Protiva is solely responsible for any sales, use, excise, value-added, services, consumption, or other similar tax that is assessed in connection with any payment due hereunder and shall either pay such payment directly or reimburse Dicerna for the same. Any withholding or other taxes that Dicerna or its Affiliates are required by Applicable Law to withhold or pay on behalf of Protiva may be deducted from such payments and paid to the appropriate tax authority contemporaneously with the remittance to Protiva, provided that (i) Dicerna promptly furnishes to Protiva proper evidence of the taxes so paid and (ii) Dicerna cooperates with and furnishes to Protiva appropriate documents to secure application of the most favorable rate of withholding tax under Applicable Law (or exemption from such withholding tax payments, as applicable). Dicerna and Protiva shall use Commercially Reasonable Efforts to cooperate to minimize any such taxes, assessments and fees to the extent permitted by Applicable Law.

3.5 Term of Payments. Following expiry of the Royalty Payment Term in respect of any country (a) the licenses granted to Dicerna with respect to such country become fully paid-up, sublicensable, royalty-free, exclusive (subject to Section 2.1(b)), transferable, perpetual and irrevocable licenses continuing indefinitely and (b) the obligation of Dicerna to pay any Royalties with respect to sales of Products in such country terminates.

ARTICLE IV –ADDITIONAL OBLIGATIONS

4.1 Obligations of Protiva. Protiva shall, itself or through its Affiliates or Permitted Contractors upon Dicerna's reasonable request, use Commercially Reasonable Efforts to assist Dicerna in obtaining any license from any Third Party needed for Dicerna or its Affiliates to exploit the LNP Technology as contemplated by this Agreement (provided that such efforts would not require Protiva to make any payment to any such Third Party).

4.2 Obligations of Dicerna.

(a) Dicerna shall, itself or through its Affiliates or Sublicensees, use Commercially Reasonable Efforts to Develop and Commercialize the Product, provided that Protiva's sole remedy for Dicerna's breach of this Section 4.2(a) is as set forth in Section 8.3.

(b) Until the earlier of (i) termination of this Agreement or (ii) the First Commercial Sale of the Product, Dicerna shall not, directly or indirectly, in-license from any Third Party for use with the Product a drug delivery system competitive with (A) the composition of matter of Lipid Nanoparticles, (B) the method of use of Lipid Nanoparticles or (C) the method of manufacturing Lipid Nanoparticles (plus or minus encapsulated drug), in each case, Controlled by Protiva or Tekmira and licensed to Dicerna hereunder; provided, however, that if, after such period, Dicerna in-licenses from a Third Party such drug delivery system, then, as the sole remedy to Protiva, the license grant by Protiva in Section 2.1 shall thereafter be on a non-exclusive basis. The foregoing does not prohibit Dicerna from licensing any Third Party technology or intellectual property necessary to Develop, Manufacture, or Commercialize the Products.

4.3 Other Obligations and Agreements of the Parties.

(a) Each Party agrees that from the Effective Date until the expiration of one (1) year after the expiration of the Term of this Agreement, it shall not, except upon the express prior written consent of the other Party in each instance, directly or indirectly employ in any capacity (whether as a full or part time employee or as a consultant or contractor) any individual who is then employed by such other Party and has worked in any capacity related to this Agreement, the Supply Agreement or the Quality Agreement. This provision shall not apply to or prohibit general solicitations, such as job postings though public media, not focused on or directed specifically to the personnel of the other Party or hiring or employing any individual who is hired by a Party in response to those general solicitations.

(b) The Parties acknowledge and agree that, in respect of the Product, all regulatory dossiers filed by Dicerna with the Regulatory Authorities and Regulatory Approvals granted (excluding in either case any content directed exclusively to Licensed Intellectual Property), are the sole and exclusively property of Dicerna.

(c) The Parties shall cooperate with each other to provide all reasonable assistance and take all actions that are necessary to comply with any Applicable Laws in connection with their respective Regulatory Authority obligations in relation to the Product under this Agreement. In addition, the Parties shall work together in good faith to develop such necessary regulatory strategies which may be required for purposes of this Agreement.

ARTICLE V –INTELLECTUAL PROPERTY

5.1 Ownership.

(a) Subject to the licenses granted by Protiva herein, Protiva is and shall at all times remain the sole and exclusive owner of the Protiva Intellectual Property.

(b) Subject to the licenses granted by Tekmira herein, Tekmira is and shall at all times remain the sole and exclusive owner of the Tekmira Patents, including, for the avoidance of doubt, the Excluded Patents.

(c) Dicerna is and shall at all times remain the sole and exclusive owner of Dicerna's Confidential Information.

5.2 Prosecution and Maintenance of Patents. Protiva shall have the sole right and responsibility, in its sole discretion and at its sole cost and expense, to file, prosecute, maintain or abandon patent protection in the Territory for Protiva Patents. Tekmira shall have the sole right and responsibility, in its sole discretion and at its sole cost and expense, to file, prosecute, maintain or abandon patent protection in the Territory for Tekmira Patents.

5.3 Third-Party Infringement of Protiva Patents and Tekmira Patents.

(a) Each Party shall use Commercially Reasonable Efforts to promptly report in writing to the other Party during the Term any known or suspected commercially relevant infringement by a Third Party of any of the Protiva Patents or Tekmira Patents Covering the Product of which such Party becomes aware and provide the other Party with all evidence supporting or relating to such infringement in its possession.

(b) Protiva shall have the sole and exclusive right to initiate an infringement or other appropriate suit with respect to infringements or suspected infringements of any of the Protiva Patents and Tekmira shall have the sole and exclusive right to initiate an infringement or other appropriate suit with respect to infringements or suspected infringements of any of the Tekmira Patents, in each case, in respect of infringing activity that is not directed to the treatment of PH1 with a Product (each such suit or other action, a "Non-PH1 Patent Infringement Action"), or to take such other actions as Protiva or Tekmira, in its sole discretion, deems appropriate with respect to such infringements or suspected infringements, all at Protiva's or Tekmira's sole cost and expense, as applicable. Protiva and Tekmira shall notify Dicerna promptly after initiating any such Non-PH1 Patent Infringement Action that has a reasonable possibility of harming or damaging Dicerna's rights or licenses to the Licensed Intellectual Property.

(c) Protiva shall have the first right to initiate an infringement or other appropriate suit with respect to infringements or suspected infringements of any of the Protiva Patents and Tekmira shall have the first right to initiate an infringement or other appropriate suit with respect to infringements or suspected infringements of any of the Tekmira Patents, in each case, by Products that are directed to the treatment of PH1 (each such suit or other action, a "PH1 Patent Infringement Action"; and, together with the Non-PH1 Patent Infringement Action, a "Patent Infringement Action"), all at Protiva's sole cost and expense. Protiva shall: (A) notify Dicerna promptly after initiating any such PH1 Patent Infringement Action and (B) consult closely with Dicerna regarding all aspects of such PH1 Patent Infringement Action and permit Dicerna to have an attorney of its own choosing participate in such PH1 Patent Infringement Action. Protiva shall not enter into any settlement or compromise in connection with an PH1 Patent Infringement Action that would materially eliminate, diminish, or otherwise modify any right, title, or interest of Dicerna in any Licensed Intellectual Property or that would require any payments, concessions, or otherwise bind Dicerna, without Dicerna's prior written consent, which consent shall not be unreasonably withheld, delayed or conditioned. If Protiva elects not to initiate, pursue or maintain any such PH1 Patent Infringement Action, Protiva shall provide Dicerna with prompt written notice of the same and, thereafter, Dicerna will have the right, but not the obligation, to initiate, pursue or maintain any PH1 Patent Infringement Action Dicerna deems appropriate with respect to such infringements or suspected infringements, all at Dicerna's sole cost and expense. Thereafter, Dicerna shall consult closely with Protiva regarding all aspects of such PH1 Patent Infringement Action and permit Protiva to have an attorney of its own choosing participate in such PH1 Patent Infringement Action. Dicerna shall not enter into any settlement or compromise in connection with a PH1 Patent Infringement Action that would materially eliminate, diminish, or otherwise modify any right, title, or interest of Protiva or Tekmira in any Licensed Intellectual Property or that would require any payments, concessions, or otherwise bind Protiva, without Protiva's prior written consent, which consent shall not be unreasonably withheld, delayed or conditioned.

(i) Upon the request of the Party bringing a PH1 Patent Infringement Action under this Section 5.3(c) (the "Enforcing Party"), the other Party shall cooperate with the Enforcing Party in such PH1 Patent Infringement Action, including joining such PH1 Patent Infringement Action as a party with the Enforcing Party if necessary or required by Applicable Law. If the non-Enforcing Party is requested to join as a party to a PH1 Patent Infringement Action it may be represented, at the cost of the Enforcing Party, by counsel mutually agreed by the Parties.

(ii) The Parties shall share in the proceeds from any PH1 Patent Infringement Action under this Section 5.3(c), including settlements thereof (the "Proceeds"), as follows:

(a) First, for the costs and expenses, including legal fees, that are incurred by the Enforcing Party as part of or in preparation of the PH1 Patent Infringement Action, including the costs and expenses of the non-Enforcing Party reimbursed by the Enforcing Party in accordance with this Section (the "Enforcement Costs"); and

(b) The remainder of the Proceeds will be treated as Net Sales, with Protiva receiving Royalties on such remainder of the Proceeds in accordance with Section 3.2 and Dicerna receiving the rest of the remainder of the Proceeds.

(d) With respect to any infringement or suspected infringements of any of the Protiva Patents or Tekmira Patents that would result in action that could reasonably be considered both an PH1 Patent Infringement Action and a Non-PH1 Patent Infringement Action, Protiva shall have the first right to initiate an infringement or other appropriate suit, subject to Section 5.3(c). If Protiva elects not to initiate, pursue or maintain any such Patent Infringement Action, Protiva shall provide Dicerna with prompt written notice of the same and, thereafter, Dicerna will have the right, but not the obligation, to initiate, pursue or maintain only the claims that would form the basis of an PH1 Patent Infringement Action, all at Dicerna's sole cost and expense, subject to Section 5.3(c). The Parties will share in any Proceeds from any such Patent Infringement Action consistent with Section 5.3(b) and 5.3(c) above (i.e., after reimbursement of each Party's Enforcement Costs, Protiva retains all Proceeds resulting from infringing activity not directed to the treatment of PH1 with a Product and Proceeds resulting from infringing activity related to Products directed to the treatment of PH1 will be shared in accordance with Section 5.3(c)(ii)).

5.4 Defense of Brought by Third Parties. Each Party shall promptly notify the other Party if it becomes aware of any claim that Dicerna's actual use, sale or practice of Product in connection with its exercise of its license under Section 2.1 infringes, misappropriates, or otherwise violates the intellectual property rights of any Third Party.

ARTICLE VI –CONFIDENTIAL INFORMATION AND PUBLICITY

6.1 Limitation of Disclosure. With the exception of information essential for Regulatory Authority filings and documentation not fulfilled by use of the DMF, neither Party shall be obligated to disclose to the other Party confidential information related to its technology. Protiva shall disclose specific information regarding the chemical composition of a formulation in Lipid Nanoparticles used in the Product for purposes of filings with the Regulatory Authorities; provided, however, that (i) Protiva shall not be obligated to disclose to Dicerna the details related to any process in which such formulation was selected, nor the chemistry of any other lipids not used in the formulation and (ii) subject to Section 6.3, if Protiva discloses Confidential Information to Dicerna for use with Regulatory Authorities, Dicerna shall not disclose such Confidential Information without Protiva's prior written consent.

6.2 Non-Disclosure of Confidential Information. Each Party agrees that, for itself and its Affiliates, until the tenth (10th) anniversary of the termination or expiration of this Agreement, a Receiving Party shall maintain all Confidential Information of the Disclosing Party in strict confidence and shall not (a) disclose Confidential Information to any Third Party without the prior written consent of the Disclosing Party, except for disclosures expressly permitted below and to the Receiving Party's and its Affiliates' Sublicensees and each of their employees who have a need to know such Confidential Information for purposes of exploiting the licenses granted herein or otherwise conducting their activities under this Agreement or (b) use Confidential Information for any purpose except those explicitly licensed or otherwise authorized or permitted by this Agreement; provided that the foregoing obligations shall survive with respect to any Confidential Information that is receiving protection as a trade secret under Applicable Law for so long as such Confidential Information continues to receive such protection.

6.3 Exceptions. The obligations in this Article VI shall not apply with respect to any portion of the Confidential Information that the Receiving Party can show by competent documented proof: (i) was known to the Receiving Party or its Affiliates, without any obligation to keep it confidential or any restriction on its use, prior to disclosure by the Disclosing Party; (ii) is subsequently disclosed to the Receiving Party or its Affiliates by a Third Party lawfully in possession thereof and without any obligation to keep it confidential or any restriction on its use; (iii) is or otherwise becomes generally available to the public or enters the public domain, either before or after it is disclosed to the Receiving Party and such public availability is not the result, directly or indirectly, of any fault of, or improper taking, use or disclosure by, the Receiving Party or its Affiliates or anyone working in concert or participation with the Receiving Party or its Affiliates; or (iv) has been independently developed by employees or contractors of the Receiving Party or its Affiliates without the aid, application or use of Confidential Information of the Disclosing Party. Notwithstanding the foregoing, (A) specific Confidential Information disclosed by a Disclosing Party shall not be deemed to be within any exceptions set forth in (i), (ii), or (iii) above merely because it is embraced by more general information to which one or more of those exceptions may apply, (B) no combination of information shall be deemed to be within any such exceptions unless the combination itself and its principle of operation are within the public domain and (C) disclosure of Confidential Information to Regulatory Authorities shall not constitute a public disclosure (i.e., it shall remain Confidential Information after such disclosure). Even though Confidential Information may be within one of the exceptions described in the preceding sentence, the Receiving Party shall not disclose to Third Parties that the excepted Confidential Information was received from the Disclosing Party.

6.4 Permitted Uses; Protection. Confidential Information of a Disclosing Party may be used by the Receiving Party in the performance of its obligations under this Agreement, the Supply Agreement and the Quality Agreement, including disclosures to Permitted Contractors who are bound by enforceable confidentiality agreements with terms consistent with and at least as protective as this Article VI, as otherwise expressly authorized in this Agreement or as expressly authorized by the Disclosing Party in writing. Confidential Information that is Licensed Intellectual Property may be used by Dicerna subject to and in accordance with the provisions of this Agreement, the Supply Agreement and the Quality Agreement, to the extent applicable to Dicerna's license to Licensed Intellectual Property. Each Receiving Party shall take steps to maintain the confidentiality of the Disclosing Party's Confidential Information that are consistent with the steps it takes to maintain the confidentiality of its own confidential information of a similar value, but in no event less than commercially reasonable steps; provided, however, that nothing in this Agreement shall be deemed to eliminate, restrict, or otherwise limit Dicerna's license to use such Confidential Information in accordance with the terms and conditions of this Agreement, even if such use may result, directly or indirectly, in the disclosure of such Confidential Information, so long as such disclosures are made in a manner than complies with Section 6.5 below.

6.5 Permitted Disclosures. The Receiving Party may disclose Confidential Information belonging to the Disclosing Party to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances: (i) subject to the proviso below, by either Party hereto, in order to comply with non-patent Applicable Law (including any securities Applicable Law or the rules of a securities exchange in a relevant jurisdiction) and with judicial process, if based on the reasonable advice of the Receiving Party's counsel, such disclosure is necessary for such compliance; (ii) subject to the proviso below, by either Party hereto, in connection with prosecuting or defending litigation; and (iii) subject to the proviso below, by Dicerna, its Sublicensees, or their sublicensees in connection with any legal or regulatory requirements related to the Development, Manufacture or Commercialization of Product that use or employ Licensed Intellectual Property, such as labeling requirements, disclosures in connection with obtaining Regulatory Approvals, and the like, so long as the Development, Manufacture or Commercialization of Product has been and is performed in a manner that complies with the terms and conditions of Dicerna's license to such Licensed Intellectual Property and reasonable steps are taken to maintain the confidentiality of said Confidential Information even when disclosed for legal or regulatory purposes; provided, however, that with respect to clause (i), (ii) and (iii) where legally permissible, (a) the Receiving Party shall notify the Disclosing Party of the Receiving Party's intent to make any disclosure pursuant thereto sufficiently prior to making such disclosure so as to allow the Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information to be disclosed, including seeking protective orders or injunctive relief, and (b) consistent with Applicable Law, the Disclosing Party shall have the right to suggest reasonable changes to the disclosure to protect its interests, and the Receiving Party shall not unreasonably refuse to include such changes in its disclosure.

6.6 Press Release. Each Party shall publicize the execution of this Agreement by issuing its respective press release attached hereto as Exhibit E. After such initial press release, neither Party shall issue a press release or public announcement relating to the other Party or the collaboration activities undertaken pursuant this Agreement or the Supply Agreement without the prior written approval of the other Party, which approval shall not be unreasonably withheld, delayed or conditioned; provided, however, that (a) either Party may issue a press release or public announcement as required by Applicable Law; and (b) nothing in the foregoing will prevent Dicerna from issuing press releases and public announcements regarding the Product that do not reference Protiva, Tekmira or the LNP Technology, except that Dicerna shall (without Protiva's consent) acknowledge that Protiva licensed to Dicerna the LNP Technology and Protiva Patents in respect of such Product. Except as otherwise provided herein, each Party agrees not to use the name, trademark, service mark, or design registered to the other Party or its Affiliates in any publicity, promotional, or advertising material, without prior written approval of the other Party.

ARTICLE VII –INDEMNIFICATION AND INSURANCE

7.1 Protiva Indemnification. Protiva agrees to indemnify Dicerna and its Affiliates, and their respective agents, directors, officers, employees, representatives, successors and permitted assigns (the "Dicerna Indemnitees") against and to hold each of them harmless from any and all losses, costs, damages, fees or expenses ("Losses") actually incurred or suffered by a Dicerna Indemnitee to the extent arising out of or in connection with any claim, suit, demand, investigation or proceeding brought by a Third Party based on: (a) any breach of any representation, warranty or covenant by Protiva under this Agreement; or (b) Protiva's, its Affiliates' or its Permitted Contractors' gross negligence, willful misconduct or violation of Applicable Law. The foregoing indemnification shall not apply to the extent that any Losses are due to Dicerna's, its Affiliates' or its Sublicensees' gross negligence or willful misconduct.

7.2 Dicerna Indemnification. Dicerna agrees to indemnify Protiva and its Affiliates, and their respective agents, directors, officers, employees, representatives, successors and permitted assigns (the "Protiva Indemnitees") against and to hold each of them harmless from any and all Losses actually incurred or suffered by a Protiva Indemnitee to the extent arising out of or in connection with any claim, suit, demand, investigation or proceeding brought by a Third Party based on: (a) any breach of any representation, warranty or covenant by Dicerna under this Agreement; (b) Dicerna's, its Affiliates' or its Sublicensees' gross negligence, willful misconduct or violation of Applicable Law; or (c) product recall, products' liability or similar claims based on the Development or Commercialization of the Product (except to the extent that Protiva is required to indemnify the Dicerna Indemnitees for such Losses pursuant to the Supply Agreement). The foregoing indemnification obligations shall not apply to the extent that any Losses are due to Protiva's, its Affiliates' or its Permitted Contractors' gross negligence or willful misconduct.

7.3 Tender of Defense; Counsel. Any Person (the "Indemnified Party") seeking indemnification under this Article VII agrees to give prompt notice in writing to the other Party (the "Indemnifying Party") of the assertion of any claim or the commencement of any action by any Third Party (a "Third Party Claim") in respect of which indemnity may be sought under this Article. Such notice shall set forth in reasonable detail such Third Party Claim and the basis for indemnification (taking into account the information then available to the Indemnified Party). The failure to so notify the Indemnifying Party shall not relieve the Indemnifying Party of its indemnification and hold harmless obligations hereunder, except to the extent such failure shall have materially and adversely prejudiced the Indemnifying Party. The Indemnifying Party shall be entitled to participate in the defense of any Third Party Claim and shall be entitled to control and appoint lead counsel reasonably satisfactory to the Indemnified Party for such defense by written notice to the Indemnified Party within [***] after the Indemnifying Party has received notice of the Third Party Claim, in each case at its own expense; provided, however, that the Indemnifying Party must use Commercially Reasonable Efforts to conduct the defense of the Third Party Claim in a manner designed to protect the rights of the Indemnified Parties, and otherwise conduct such defense actively and diligently, thereafter in order to preserve its rights in this regard. The Indemnifying Party shall not be entitled to assume or maintain control of the defense of any Third Party Claim and shall pay the fees and expenses of one counsel retained by the Indemnified Party if: (a) the Third Party Claim relates to or arises in connection with any criminal proceeding, action, indictment or allegation; (b) the Third Party Claim seeks an injunction or equitable relief against a Indemnified Party or any of its Affiliates; or (c) the Indemnifying Party has failed or is failing to prosecute or defend vigorously the Third Party Claim. Each Indemnified Party shall obtain the prior written consent of the Indemnifying Party, such consent not to be unreasonably withheld, delayed or conditioned, before entering into any settlement of a Third Party Claim. Notwithstanding the foregoing, the Indemnifying Party shall not be entitled to enter into or approve any settlement of a Third Party Claim without the consent of the Indemnified Party (which may be withheld in its sole discretion), if the settlement (i) does not expressly unconditionally release all applicable Indemnified Parties and their Affiliates from all Losses with respect to such Third Party Claim, (ii) imposes injunctive or other equitable relief against the Indemnified Party or any of its Affiliates, (iii) involves any admission of criminal or similar liability, or (iv) involves any monetary damages that may not be fully covered by the Indemnifying Party. In the event that the Indemnifying Party fails to assume the defense of the Third Party Claim in accordance with this Section 7.3, (1) the Indemnified Party may defend against the Third Party Claim in any manner it reasonably may deem appropriate, and (2) the Indemnifying Party shall remain responsible for any Losses of the Indemnified Party as a result of such Third Party Claim. In circumstances where the Indemnifying Party is controlling the defense of a Third Party Claim in accordance with this Section 7.3, the Indemnified Party shall be entitled to participate in the defense of any Third Party Claim and to employ separate counsel of its choice for such purpose, in which case the fees and expenses of such separate counsel shall be borne by such Indemnified Party. Notwithstanding anything herein to the contrary, in circumstances where there is a conflict of interest that would reasonably make it inappropriate under applicable standards of professional conduct to have common counsel for the Indemnifying Party and the Indemnified Party, the Indemnified Party shall be entitled to employ separate counsel, that is reasonably acceptable to the Indemnifying Party, and the Indemnifying Party shall pay the reasonable fees and expenses of such separate counsel. Each Party shall cooperate, and cause their respective Affiliates to cooperate in all reasonable respects, in the defense or prosecution of any Third Party Claim and shall furnish or cause to be furnished such records, information and testimony, and attend such conferences, discovery proceedings, hearings, trials or appeals, as may be reasonably requested in connection therewith, all at the expense of the Indemnifying Party.

7.4 Insurance. Each Party shall maintain insurance, including product liability insurance, with respect to its activities under this Agreement regarding the Product in such amount as such Party customarily maintains with respect to similar activities for its other products. Each Party shall maintain such insurance for so long as it continues its activities under this Agreement, the Supply Agreement or the Quality Agreement, and thereafter for so long as such Party customarily maintains insurance for itself covering similar activities for its other products. Notwithstanding the foregoing, the Parties agree that during such time that Tekmira is an Affiliate of Protiva, Protiva shall have satisfied its obligations under this Section 7.4 provided it is covered by Tekmira's existing insurance policies that also satisfy the obligations under this Section 7.4.

ARTICLE VIII –TERM AND TERMINATION

8.1 Term. The term of this Agreement (the "Term") shall begin on the Effective Date and, unless terminated earlier as provided herein, shall continue in perpetuity.

8.2 Termination for Material Breach. If either Party commits a material breach or material default in the performance or observance of any of its obligations under this Agreement, and such breach or default continues without cure for a period of [***] after delivery by the other Party of written notice reasonably detailing such breach or default, then the non- breaching or non-defaulting Party shall have the right to terminate this Agreement, with immediate effect, by giving written notice to the breaching or defaulting Party. The Parties shall retain all rights and remedies (at law or in equity) in respect of any breach hereof.

8.3 Termination for Failure to Actively Develop or Commercialize. If Protiva reasonably concludes that Dicerna is failing to use Commercially Reasonable Efforts to actively Develop or Commercialize the Product, Protiva can request from Dicerna written confirmation that Dicerna or its Affiliates or Sublicensees are actively Developing and Commercializing the Product. Following receipt of such request, if Dicerna either: (a) fails to deliver such written confirmation to Protiva within [***] of Protiva's delivery of such request; or (b) provides such written confirmation but does not thereafter, in a timely and diligent manner, actually use Commercially Reasonable Efforts to actively Develop or Commercialize the Product, Protiva may terminate this Agreement immediately on written notice to Dicerna.

8.4 Challenges of Protiva's Patents or Tekmira Patents. If Dicerna or any of its Affiliates or Sublicensees directly and voluntarily commences or participates in any action or proceeding (including any patent opposition or re-examination proceeding), or otherwise asserts in writing (to Protiva or any of its Affiliates or to the U.S. Patent and Trademark Office) any claim, challenging or denying the validity of any of the Protiva Patents or Tekmira Patents, Protiva or Tekmira, as applicable, shall have the right to give notice to Dicerna (which notice must be given, if at all, within [***] after Protiva's CEO or General Counsel first learns of the foregoing) that the licenses granted by Protiva to Dicerna hereunder to such Protiva Patent(s) or by Tekmira to Dicerna hereunder to such Tekmira Patent(s) shall terminate [***] following Dicerna's receipt of such notice, and, unless Dicerna or its Affiliate or Sublicensees, as applicable, withdraws or causes to be withdrawn all such challenge(s) within such [***] period, such licenses to such Protiva Patent or Tekmira Patent, as applicable, shall so terminate; provided that if such action, proceeding or assertion is made by a Sublicensee the license shall only terminate with respect to the sublicense granted to such Sublicensee. Neither Dicerna's, its Affiliates', a Sublicensee, or any of their employees' participating in or appearing in any such action, proceeding or claim as a result of receiving a subpoena or other court order requiring such participation or appearance will give rise to a right for Protiva to terminate as set forth in this Section 8.4.

8.5 Rights in Bankruptcy. Each Party (the "Insolvent Party") shall promptly notify the other Party (the "Solvent Party") in writing upon the initiation of any proceeding in bankruptcy, reorganization, dissolution, liquidation or arrangement for the appointment of a receiver or trustee to take possession of the assets of the Insolvent Party or similar proceeding under law for release of creditors by or against the Insolvent Party or if the Insolvent Party shall make a general assignment for the benefit of its creditors. To the extent permitted by Applicable Law, if the applicable circumstances described above shall have continued for [***] undismissed, unstayed, unbonded and undischarged, the Solvent Party may terminate this Agreement upon written notice to the Insolvent Party at any time. If Protiva is the Insolvent Party, the rights and remedies granted to Dicerna (as the Solvent Party) pursuant to this Section 8.5 shall be in addition to, and not in lieu of, Dicerna's rights and remedies under Section 2.4(b) above.

8.6 Consequences of Termination; Survival.

(a) In the event this Agreement is properly terminated in accordance with its terms, then Dicerna's rights and licenses under the Licensed Intellectual Property shall terminate upon the effective date of such termination, except as set forth in Sections 2.2(a) and 8.6(b). Termination of this Agreement shall not relieve the Parties of any obligation accruing prior to or upon such expiration or termination and the provisions of this Section 8.6, Section 3.3(b), Section 4.3(a) and ARTICLE I – (Definitions), ARTICLE V – (Intellectual Property), ARTICLE VI – (Confidential Information and Publicity), ARTICLE VII – (Indemnification and Insurance), and ARTICLE IX – (Miscellaneous) shall survive any expiration or termination of this Agreement.

(b) On the effective date of termination of this Agreement, the Supply Agreement and Quality Agreement between the Parties, shall each automatically terminate, subject to the survival obligations of each such agreement; provided, however, that (i) within [***] after expiration or termination of this Agreement, Dicerna will provide Protiva with an inventory of all Products in Protiva's, its Affiliates' and their Sublicensees' (including CMO's) possession or control, including finished products and works-in-process ("Final Inventory") and (ii) for a period of [***] after such expiration or termination Dicerna will have the right to have its CMOs complete the Manufacture of all works-in-process in the Final Inventory and to sell off all Final Inventory (including Product created from completed works-in-process) in accordance with the terms of this Agreement (including Section 3.2).

(c) After the expiration or termination of this Agreement, Dicerna shall have no further obligations of payment to Protiva under this Agreement (including for Milestone Payments), except for the Royalty payment obligations in accordance with Section 3.2 related to Dicerna's sale of Products sold prior to the date of termination and sales of the Final Inventory in accordance with Section 8.6(b).

8.7 Remedies. The Parties acknowledge and agree that, in the event of a breach or a threatened breach by either Party of this Agreement for which it shall have no adequate remedy at law, the other Party may suffer irreparable damage and, accordingly, may be entitled to injunctive and other equitable remedies to prevent or restrain such breach or threatened breach, in addition to any other remedy they might have at law or at equity. In the event of a breach or threatened breach by a Party of any such provision, the other Party shall be authorized and entitled to seek from any court of competent jurisdiction injunctive relief, whether preliminary or permanent, arising from such breach, which rights shall be cumulative and in addition to any other rights or remedies to which the other Party may be entitled in law or equity.

ARTICLE IX –MISCELLANEOUS

9.1 Representations and Warranties.

(a) Mutual Representations and Warranties by Protiva and Dicerna.

(i) Each Party hereby represents and warrants to the other Party as of the Effective Date that:

(a) it is duly organized and validly existing under the laws of the jurisdiction of its incorporation or formation, and has all necessary power and authority to conduct its business in the manner in which it is currently being conducted, to own and use its assets in the manner in which its assets are currently owned and used, and to enter into and perform its obligations under this Agreement;

(b) the execution, delivery and performance of this Agreement has been duly authorized by all necessary action on the part of such Party and its Board of Directors or other governing body and no consent, approval, order or authorization of, or registration, declaration or filing with any Third Party or Governmental Authority is necessary for the execution, delivery or performance of this Agreement;

(c) this Agreement constitutes the legal, valid and binding obligation of such Party, enforceable against it in accordance with its terms, subject to (A) Applicable Laws of general application relating to bankruptcy, insolvency and the relief of debtors, and (B) Applicable Laws governing specific performance, injunctive relief and other equitable remedies; and

(d) neither it nor any of its Affiliates or their employees have ever been (i) convicted of a crime for which a Person can be debarred under Section 306(a) or 306(b) of the Generic Drug Enforcement Act of 1992 or under 42 U.S.C. Section 1320-7 or (ii) sanctioned by, suspended, excluded or otherwise ineligible to participate in any federal health care program, including Medicare and Medicaid or in federal procurement or non-procurement programs. If at any time this representation and warranty is no longer accurate, Protiva or Dicerna, as the case may be, shall immediately notify the other of such fact.

(b) Protiva Representations, Warranties, and Covenants. Protiva hereby represents, warrants, and covenants to Dicerna that:

(i) Protiva shall perform its obligations herein in compliance with all Applicable Laws;

(ii) as of the Effective Date, Protiva has no actual knowledge that the manufacture, use, sale and import of Protiva Intellectual Property and the LNP Technology, including as used in the Product, infringes, misappropriates or otherwise violates any issued Patent or other intellectual property right of any Third Party anywhere in the Territory;

(iii) as of the Effective Date, no Affiliate of Protiva or Tekmira (other than Protiva and Tekmira) Controls (including by joint ownership) any intellectual property rights relevant to or useful to the Development, Manufacture and Commercialization of Products directed to the treatment of PH1;

(iv) neither Protiva nor any of its Affiliates has assigned, transferred, conveyed or otherwise encumbered, nor during the Term will assign, transfer, convey or otherwise encumber, its right, title and interest in the Patents, Confidential Information and other intellectual property either owned by or exclusively licensed to Protiva as of the Effective Date in a manner that conflicts with any rights granted to Dicerna hereunder, subject only to the non-exclusive licenses granted by Protiva prior to the Effective Date as set forth on Exhibit D, and none of the exclusive licenses granted by Protiva prior to the Effective Date as set forth on Exhibit D conflict with any rights granted to Dicerna hereunder;

(v) as of the Effective Date, except for the grant of license rights set forth at Section 2.1(b), Tekmira is a party to this Agreement and the Supply Agreement for the sole purpose of providing the representations, warranties and covenants set forth in this Section 9.1(c);

(vi) for each country or jurisdiction in which Protiva Controls any Protiva Patent as of the Effective Date, Exhibit A lists the Protiva Patent in such country or jurisdiction with the latest twenty year expiration date, calculated from the earliest filed, non-provisional, application from which benefit of priority is claimed, for any Protiva Patent in such country or jurisdiction; and

(vii) Protiva shall not file any new Patent applications in any country or jurisdiction for the predominant purpose of extending the duration of the Royalty Payment Term.

(c) Tekmira Representations, Warranties, and Covenants. Tekmira hereby represents, warrants, and covenants to Dicerna that:

(i) as of the Effective Date, it is duly organized and validly existing under the laws of the jurisdiction of its incorporation or formation, and has all necessary power and authority to conduct its business in the manner in which it is currently being conducted, to own and use its assets in the manner in which its assets are currently owned and used, and to enter into and perform its obligations under this Agreement;

(ii) as of the Effective Date, the execution, delivery and performance of this Agreement has been duly authorized by all necessary action on the part of Tekmira and its Board of Directors and no consent, approval, order or authorization of, or registration, declaration or filing with any Third Party or Governmental Authority is necessary for the execution, delivery or performance of this Agreement;

(iii) as of the Effective Date, Tekmira has no actual knowledge that the manufacture, use, sale and import of Tekmira Patents, including as used in the Product, infringes, misappropriates or otherwise violates any issued Patent or other intellectual property right of any Third Party anywhere in the Territory;

(iv) as of the Effective Date, this Section 9.1(c) constitutes the legal, valid and binding obligation of Tekmira, enforceable against it in accordance with its terms, subject to (A) Applicable Laws of general application relating to bankruptcy, insolvency and the relief of debtors, and (B) Applicable Law governing specific performance, injunctive relief and other equitable remedies;

(v) as of the Effective Date, neither it nor any of its Affiliates or their employees have ever been (i) convicted of a crime for which a Person can be debarred under Section 306(a) or 306(b) of the Generic Drug Enforcement Act of 1992 or under 42 U.S.C. Section 1320-7 or (ii) sanctioned by, suspended, excluded or otherwise ineligible to participate in any federal health care program, including Medicare and Medicaid or in federal procurement or non-procurement programs;

(vi) if at any time the representation and warranty in Section 9.1(c)(v) is no longer accurate, Tekmira shall promptly notify Dicerna of such fact;

(vii) neither Tekmira nor any of its Affiliates has assigned, transferred, conveyed or otherwise encumbered, nor during the Term will assign, transfer, convey or otherwise encumber, its right, title and interest in the Patents owned by or exclusively licensed to Tekmira as of the Effective Date in a manner that conflicts with any rights granted to Dicerna hereunder, subject only to the non-exclusive licenses granted by Tekmira prior to the Effective Date as set forth on Exhibit D, and none of the exclusive licenses granted by Tekmira prior to the Effective Date as set forth on Exhibit D conflict with any rights granted to Dicerna hereunder; and

(viii) Tekmira shall cause Protiva to perform and to comply with the provisions of this Agreement, and shall remain responsible for and guarantee the performance of Protiva under this Agreement, and is liable to Dicerna for any breach of this Agreement by Protiva and for the actions and omissions of Protiva undertaken pursuant to this Agreement as if taken by Tekmira itself.

(ix) for each country or jurisdiction in which Tekmira Controls any Tekmira Patent as of the Effective Date, Exhibit B lists the Tekmira Patent in such country or jurisdiction with the latest twenty year expiration date, calculated from the earliest filed, non-provisional, application from which benefit of priority is claimed, for any Tekmira Patent in such country or jurisdiction; and

(x) Tekmira shall not file any new Patent applications in any country or jurisdiction for the predominant purpose of extending the duration of the Royalty Payment Term.

(d) Warranty Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTY OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, TO THE OTHER PARTY WITH RESPECT TO ANY INTELLECTUAL PROPERTY, PRODUCTS, GOODS, RIGHTS OR OTHER SUBJECT MATTER OF THIS AGREEMENT AND HEREBY DISCLAIMS ALL IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR VALIDITY OF PATENT RIGHTS WITH RESPECT TO ANY AND ALL OF THE FOREGOING. EACH PARTY HEREBY DISCLAIMS ANY REPRESENTATION OR WARRANTY THAT THE DEVELOPMENT, MANUFACTURE OR COMMERCIALIZATION OF ANY PRODUCT PURSUANT TO THIS AGREEMENT SHALL BE SUCCESSFUL OR THAT ANY PARTICULAR SALES LEVEL WITH RESPECT TO ANY SUCH PRODUCT SHALL BE ACHIEVED.

9.2 Force Majeure. Except with respect to payment obligations, a Party shall neither be held liable or responsible to any other Party, nor be deemed to have defaulted under or breached this Agreement, for failure or delay in fulfilling or performing any term of this Agreement to the extent, and for so long as, such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party, including fire, floods, embargoes, power shortage or failure, acts of war (whether war be declared or not), insurrections, riots, terrorism, civil commotions, strikes, lockouts or other labor disturbances, acts of God or any acts, omissions or delays in acting by any Governmental Authority or any other Party, and such affected Party promptly begins performing under this Agreement once such causes have been removed.

9.3 Consequential Damages. UNDER NO CIRCUMSTANCES WILL ANY PARTY BE LIABLE TO ANY OTHER PARTY WITH RESPECT TO THIS AGREEMENT, AND THE ACTIVITIES CONTEMPLATED HEREBY, FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL OR SIMILAR DAMAGES, WHETHER FORESEEABLE OR UNFORESEEABLE AND REGARDLESS OF THE CAUSE OF ACTION FROM WHICH THEY ARISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OCCURRING. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 9.3 IS INTENDED TO OR SHALL LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OF A PARTY OR DAMAGES AVAILABLE FOR A PARTY'S BREACH OF CONFIDENTIALITY OBLIGATIONS IN ARTICLE VI.

9.4 Assignment. Neither Party shall assign any of its rights and obligations hereunder without the prior written consent of the other Party, except (a) to a purchaser of all or substantially all of the assets or business of such Party to which this Agreement relates, or to the successor resulting from any merger, acquisition, consolidation or similar transaction with such Party and (b) to an Affiliate; provided, however, that (i) such assignment to an Affiliate shall not relieve such Party of its obligations herein, and (ii) in each case, the assigning Party shall provide the other Party with written notice of such assignment. Any purported transfer or assignment in contravention of this Section 9.4 shall, at the option of the non-assigning Party, be null and void and of no effect. This Agreement shall be binding upon and inure to the benefit of the Parties and their permitted successors and assigns.

9.5 Notices.

Notices to Dicerna shall be addressed to:

Dicerna Pharmaceuticals, Inc.
480 Arsenal St., #120
Watertown, MA 02472
United States
Attention: CEO and President

With a copy to:

Dicerna Pharmaceuticals, Inc.
480 Arsenal St., #120
Watertown, MA 02472
United States
Attention: Chief Financial Officer

Notices to Protiva shall be addressed to:

Protiva Pharmaceuticals Corporation
100-8900 Glenlyon Parkway
Burnaby, B.C.
Canada V5J 5J8
Attention: President & CEO
Facsimile No.: (604) 630-5103

Notices to Tekmira shall be addressed to:

Tekmira Pharmaceuticals Corporation
100-8900 Glenlyon Parkway
Burnaby, B.C.
Canada V5J 5J8
Attention: President & CEO
Facsimile No.: (604) 630-5103

In each case with copy to:

Orrick, Herrington & Sutcliffe LLP
51 West 52nd Street
New York, NY 10019
Attention: R. King Milling
Facsimile No.: (212) 506-5151

Any party hereto may change their address by giving notice to the other parties in the manner provided in this Section 9.5. Any notice required or provided for by the terms of this Agreement shall be in writing and shall be (a) sent by certified mail, return receipt requested, postage prepaid, (b) sent via a reputable international express courier service, or (c) sent by facsimile transmission, with a copy by regular mail. The effective date of the notice shall be the actual date of receipt by the receiving party.

9.6 Independent Contractors. It is understood and agreed that the relationship between the Parties is that of independent contractors and that nothing in this Agreement shall be construed as authorization for either Party to act as the agent for the other Party.

9.7 Governing Law; Dispute Resolution; Arbitration. This Agreement shall be governed and interpreted in accordance with the substantive laws of the State of New York, excluding its conflicts of laws principles.

(a) The Parties and Tekmira recognize that a bona fide dispute as to certain matters may from time to time arise during the Term that relate to a Party or Tekmira's rights or obligations hereunder. In the event of the occurrence of any Dispute, the Parties and Tekmira shall first have such Dispute referred to their respective executives designated below for attempted resolution by good faith negotiations within [***] after such notice is received. If either Party or Tekmira desires to pursue arbitration under Section 9.7(b) below to resolve any such Dispute, unless expressly provided for otherwise herein, a referral to such executives under this Section 9.7(a) shall be a mandatory condition precedent. Said designated executives as of the Effective Date are as follows.

For Dicerna: Douglas Fambrough, Ph.D., President and CEO

For Protiva: Mark Murray, President and CEO

For Tekmira: Mark Murray, President and CEO

In the event that they shall be unable to resolve the Dispute by consensus within such [***], the Dispute shall be finally settled by binding arbitration as provided below.

(b) Except as expressly otherwise provided in this Agreement, in the event of any dispute arising out of or relating to the interpretation of any provision of this Agreement or the failure of either Party or Tekmira to perform or comply with any obligation of such party pursuant to this Agreement or the breach, termination or validity hereof (a "Dispute"), such Dispute will be finally settled by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, then in force and the Federal Arbitration Act, 9 U.S.C. § 1 et seq., by three (3) arbitrators (the "Arbitrators"); provided that the appointed arbitrators shall have appropriate experience in the pharmaceutical industry. Dicerna shall appoint one Arbitrator and Protiva and Tekmira, collectively, shall appoint one Arbitrator, and such two Arbitrators shall jointly appoint the third Arbitrator. If any party is not able to appoint its Arbitrator or the two initial Arbitrators are not able to appoint the third Arbitrator within a reasonable amount of time after the initiation of such process, the applicable Arbitrator or Arbitrators will be appointed in accordance with the above identified commercial arbitration rules. The place of arbitration will be New York, New York, and the Arbitrators must decide the Dispute in accordance with the substantive laws of the State of New York. The Arbitrators, by accepting their appointment, undertake to conduct the process such that the award is rendered within [***] of their appointment and is final and binding upon all parties participating in such arbitration. The judgment rendered by the Arbitrators may, at the Arbitrator's discretion, include costs of arbitration, reasonable attorneys' fees and reasonable costs for any expert and other witnesses. Judgment upon the award may be entered in any court having jurisdiction, or application may be made to such court for judicial acceptance of the award or an order of enforcement as the case may be. Any period of limitations or survival period that would otherwise expire between the initiation of the procedures described in this Section 9.7 and the conclusion of such procedures will be extended until [***] following the conclusion of such procedures. This Section 9.7 does not prohibit a Party or Tekmira from seeking preliminary injunctive relief in aid of arbitration from a court of competent jurisdiction.

(c) The Parties and Tekmira consent to (i) the exclusive jurisdiction of the Federal courts and the State courts of the State of New York, in each case, located in the borough of Manhattan, City of New York (the "New York Courts") for (A) any action referenced in Section 9.7(d) and (B) any action in aid of arbitration, for provisional relief of the status quo or to prevent irreparable harm prior to the appointment of the Arbitrators in Section 9.7(b) above, and (ii) the non-exclusive jurisdiction of the New York Courts for any action to enter or enforce any arbitral award entered in connection with this Agreement. THE PARTIES AND TEKMIRA HEREBY IRREVOCABLY WAIVE, AND AGREE TO CAUSE THEIR RESPECTIVE AFFILIATES TO WAIVE, THE RIGHT TO TRIAL BY JURY IN SUCH ACTIONS.

(d) Unless agreed by the Parties, the foregoing alternative dispute resolution procedures shall not be used with respect to any claim by one Party against another regarding the validity, infringement, misappropriation or violation of a Patent, copyright, trade secret or trademark.

9.8 Severability. In the event that any provision of this Agreement is held by a court of competent jurisdiction to be unenforceable because it is invalid or in conflict with any law of the relevant jurisdiction, the validity of the remaining provisions shall not be affected and the rights and obligations of the Parties and Tekmira shall be construed and enforced as if the Agreement did not contain the particular provisions held to be unenforceable, provided that the Parties and Tekmira, shall negotiate in good faith a modification of this Agreement with a view to revising this Agreement in a manner which reflects, as closely as is reasonably practicable, the commercial terms of this Agreement as originally signed.

9.9 No Implied Waivers. The waiver by either Party or Tekmira of a breach or default of any provision of this Agreement by the other Party or Tekmira shall not be construed as a waiver of any succeeding breach of the same or any other provision, nor shall any delay or omission on the part of either Party or Tekmira to exercise or avail itself of any right, power or privilege that it has or may have hereunder operate as a waiver of any right, power or privilege by such Party or Tekmira.

9.10 Headings. The headings of articles and sections contained this Agreement are intended solely for convenience and ease of reference and do not constitute any part of this Agreement, or have any effect on its interpretation or construction.

9.11 Entire Agreement; Amendment. This Agreement (along with the attachments), the Supply Agreement, and the Quality Agreement contain the entire understanding of the Parties and Tekmira with respect to the subject matter hereof and thereof and supersede and replace any and all previous arrangements and understandings, whether oral or written, between the Parties and Tekmira with respect to the subject matter hereof and thereof. This Agreement (including the attachments hereto) may be amended only by a writing signed by each of the Parties and Tekmira.

9.12 Waiver of Rule of Construction. Each Party and Tekmira has had the opportunity to consult with counsel in connection with the review, drafting and negotiation of this Agreement. Accordingly, the rule of construction that any ambiguity in this Agreement shall be construed against the drafting party shall not apply.

9.13 No Third-Party Beneficiaries. Except as expressly contemplated herein, no Third Party, including any employee of either Party or Tekmira, shall have or acquire any rights by reason of this Agreement.

9.14 Further Assurances. Each Party and Tekmira shall provide such further documents or instruments required by the other Party or Tekmira as may be reasonably necessary or desirable to give effect to the purpose of this Agreement and carry out its provisions.

9.15 Performance by Affiliates. Either Party may use one or more of its Affiliates to perform its obligations and duties hereunder, and Affiliates of a Party are expressly granted certain rights herein; provided that each such Affiliate shall be bound by the corresponding obligations of such Party and the relevant Party shall remain liable hereunder for the prompt payment and performance of all their respective obligations hereunder.

9.16 Counterparts. This Agreement may be executed in any number of counterparts in original or by facsimile or PDF copy, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument.

[*Signature Page Follows*]

IN WITNESS WHEREOF, authorized representatives of Dicerna, Protiva and Tekmira have executed and delivered this License Agreement effective as of the Effective Date.

DICERNA PHARMACEUTICALS, INC.

By:_____
Name:
Title:

DICERNA PHARMACEUTICALS, INC.

By:_____
Name:
Title:

PROTIVA BIOTHERAPEUTICS INC.

By:_____
Name:
Title:

By:_____
Name:
Title

TEKMIRA PHARMACEUTICALS CORPORATION

By:_____
Name:
Title:

By:_____
Name:
Title:

[*Signature Page to License Agreement*]

Exhibit A
Protiva Patents

[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

Exhibit B
Tekmira Patents

[***]	[***]
[***]	[***]

Exhibit C
Excluded Patents

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]	[***]	[***]		

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]			[***]	

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]	[***]	[***]		

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]	[***]	[***]		

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]	[***]	[***]		
[***]	[***]	[***]	[***]	[***]		

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]	[***]	[***]		

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]	[***]	[***]		

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]	[***]	[***]		

Country Name	Status	Title	Serial #	Filed Date	Patent #	Issue Date
[***]	[***]	[***]	[***]	[***]		

Exhibit D
Existing License Grants

Name of Agreement	Parties	Effective Date
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	[***]

Exhibit E
Press Releases

Dicerna Press Release – See Attachment E-1.

Protiva Press Release – See Attachment E-2.

Attachment E-1.

Dicerna Announces License Agreement with Tekmira to Advance Dicerna's PH1 Development Program

WATERTOWN, Mass., November 17, 2014 – Dicerna Pharmaceuticals, Inc. (NASDAQ: DRNA), a leading developer of RNA interference (RNAi) therapeutics, today announced a licensing agreement for Dicerna to use Tekmira's proprietary lipid nanoparticle (LNP) technology for delivery of DCR-PH1, Dicerna's investigational product candidate for primary hyperoxaluria type 1 (PH1), a rare, inherited liver disorder that often results in kidney failure, and for which there are no approved therapies.

This announcement follows the successful testing of DCR-PH1 in combination with Tekmira's LNP technology in animal models, including mice and non-human primates. Under the agreement, Dicerna will pay Tekmira $2.5 million upfront, as well as $22 million in potential development milestones, and a mid-single-digit royalty on future PH1 sales.

Tekmira's LNP system has shown in other human clinical studies to provide potent, safe and effective RNA delivery to hepatocytes (liver cells). Licensing Tekmira's LNP will streamline the development path for DCR-PH1 and allows Dicerna to focus its LNP efforts on its oncology pipeline.

"Dicerna is focused on realizing the full clinical potential of our proprietary pipeline of highly targeted RNAi therapies by applying proven technologies," said Douglas Fambrough, Ph.D., Chief Executive Officer of Dicerna. "By drawing on Tekmira's extensive and deep experience with lipid nanoparticle delivery to the liver, the agreement will streamline the development path for DCR-PH1. We look forward to initiating Phase 1 trials of DCR-PH1 in 2015, aiming to fill a high unmet medical need for patients with PH1."

"This new agreement validates our leadership position in RNAi delivery and underscores the significant value we can bring to partners who leverage our LNP technology," said Dr. Mark J. Murray, President and CEO of Tekmira. "Our LNP technology is enabling the most advanced applications of RNAi therapeutics in the clinic. We are excited to be working with Dicerna in advancing a needed, investigational therapeutic for the treatment of PH1."

About RNAi
RNAi therapeutics have the potential to treat a number of human diseases by "silencing" disease-causing genes. The discoverers of RNAi, a gene silencing mechanism used by all cells, were awarded the 2006 Nobel Prize for Physiology or Medicine. RNAi trigger molecules often require delivery technology to be effective as therapeutics.

About Tekmira's LNP Technology
Tekmira LNP technology represents the most widely adopted delivery technology for the systemic delivery of RNAi triggers. Tekmira's LNP platform is being utilized in multiple clinical trials by Tekmira and its partners. Tekmira's LNP technology (formerly referred to as stable nucleic acid-lipid particles, or SNALP) encapsulates RNAi triggers with high efficiency in uniform lipid nanoparticles that are effective in delivering these therapeutic compounds to disease sites. Tekmira's LNP formulations are manufactured by a proprietary method that is robust, scalable and highly reproducible, and LNP-based products have been reviewed by multiple regulatory agencies for use in clinical trials. LNP formulations comprise several lipid components that can be adjusted to suit the specific application.

About Primary Hyperoxaluria Type 1 (**PH1)**
PH1 is a rare, inherited liver disorder that often results in severe damage to the kidneys. The disease can be fatal unless the patient undergoes a liver-kidney transplant, a major surgical procedure that is often difficult to perform due to the lack of donors and the threat of organ rejection. In the event of a successful transplant, the patient must live the rest of his or her life on immunosuppressant drugs, which have substantial associated risks. Currently, there are no FDA approved treatments for PH1.

PH1 is characterized by a genetic deficiency of the liver enzyme alanine:glyoxalate-aminotransferase (AGT), which is encoded by the AGXT gene. AGT deficiency induces overproduction of oxalate by the liver, resulting in the formation of crystals of calcium oxalate in the kidneys. Oxalate crystal formation often leads to chronic and painful cases of kidney stones and subsequent fibrosis (scarring), which is known as nephrocalcinosis. Many patients progress to end-stage renal disease (ESRD) and require dialysis or transplant. Aside from having to endure frequent dialysis, PH1 patients with ESRD may experience a build-up of oxalate in the bone, skin, heart and retina, with concomitant debilitating complications. While the true prevalence of primary hyperoxaluria is unknown, it is estimated to be one to three cases per one million people.[1] Fifty percent of patients with PH1 reach ESRD by their mid-30s.[2]

About DCR-PH1
Dicerna is developing DCR-PH1, which is in preclinical development, for the treatment of PH1. DCR-PH1 is engineered to address the pathology of PH1 by targeting and destroying the messenger RNA (mRNA) produced by HAO1, a gene implicated in the pathogenesis of PH1. HAO1 encodes glycolate oxidase, a protein involved in producing oxalate. By reducing oxalate production, this approach is designed to prevent the complications of PH1. In preclinical studies, DCR-PH1 has been shown to induce potent and long-term inhibition of HAO1 and to significantly reduce levels of urinary oxalate, while demonstrating long-term efficacy and tolerability in animal models of PH1.

About Dicerna's Dicer Substrate Technology
Dicerna's proprietary RNAi molecules are known as Dicer substrates, or DsiRNAs, so called because they are processed by the Dicer enzyme, which is the initiation point for RNAi in the human cell cytoplasm. Dicerna's discovery approach is believed to maximize RNAi potency because the DsiRNAs are structured to be ideal for processing by Dicer. Dicer processing enables the preferential use of the correct RNA strand of the DsiRNA, which may increase the efficacy of the RNAi mechanism, as well as the potency of the DsiRNA molecules relative to other molecules used to induce RNAi.

About Tekmira
Tekmira Pharmaceuticals Corporation is a biopharmaceutical company focused on advancing novel RNAi therapeutics and providing its leading lipid nanoparticle (LNP) delivery technology to pharmaceutical partners. Tekmira has been working in the field of nucleic acid delivery for over a decade, and has broad intellectual property covering its delivery technology. Further information about Tekmira can be found at www.tekmira.com. Tekmira is based in Vancouver, Canada and Seattle, USA.

About Dicerna
Dicerna Pharmaceuticals, Inc., is a biopharmaceutical company focused on the discovery and development of innovative treatments for rare, inherited diseases involving the liver and for cancers that are genetically defined. The company is using its proprietary RNA interference (RNAi) technology platform to build a broad pipeline in these therapeutic areas. In both rare diseases and oncology, Dicerna is pursuing targets that have been difficult to address using conventional approaches, but where connections between targets and diseases are well understood and documented. The company intends to discover, develop and commercialize novel therapeutics either on its own or in collaboration with pharmaceutical partners.

Cautionary Note on Forward-Looking Statements
This press release includes forward-looking statements. Such forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements. Applicable risks and uncertainties include that LNP technology may fail to deliver DCR-PH1 to the liver in human beings or otherwise fail to accelerate clinical development, and that clinical trials may not demonstrate the effectiveness of DCR-PH1. Additional risks, including those relating to Dicerna's preclinical research and clinical development and other risks, are identified under the heading "Risk Factors" included in Dicerna's most recent Form 10-Q filing and in other future filings with the SEC. The forward-looking statements contained in this press release reflect Dicerna's current views with respect to future events, and Dicerna does not undertake and specifically disclaims any obligation to update any forward-looking statements.

References

[1] Cochat, P, Rumsby, G. Primary hyperoxaluria. *The New England Journal of Medicine* 2013; 369(7): 649-658.
[2] Rare Kidney Stone Consortium. Primary Hyperoxaluria. 2010. Available at: http://www.rarekidneystones.org/hyperoxaluria/physicians.html. Accessed October 14, 2014.

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Attachment E-2.

Not For Immediate Release **November 17, 2014**

Tekmira Announces Licensing and Collaboration Agreement with Dicerna

Tekmira's LNP to enable Dicerna's PH1 Candidate

Vancouver, B.C. – Tekmira Pharmaceuticals Corporation (NASDAQ:TKMR; TSX:TKM) a leading developer of RNA interference (RNAi) therapeutics, today announces a licensing and collaboration agreement with Dicerna Pharmaceuticals, Inc. Tekmira has licensed its proprietary lipid nanoparticle (LNP) delivery technology for exclusive use in Dicerna's primary hyperoxaluria type 1 (PH1) development program.

Under the agreement, Dicerna will pay Tekmira $2.5 million upfront and payments of $22 million in aggregate development milestones, plus a mid-single-digit royalty on future PH1 sales. This new partnership also includes a supply agreement with Tekmira providing clinical drug supply and regulatory support in the rapid advancement of the product candidate.

The agreement announced today follows the successful testing and demonstration of positive results combining Tekmira's LNP technology with DCR-PH1 in pre-clinical animal models.

Dicerna will use Tekmira's third generation LNP technology for delivery of DCR-PH1, Dicerna's Dicer substrate RNA (DsiRNA) molecule, for the treatment of PH1, a rare, inherited liver disorder that often results in kidney failure and for which there are no approved therapies.

"This new agreement validates our leadership position in RNAi delivery with LNP technology, and it underscores the significant value we can bring to partners who leverage our technology. Our LNP technology is enabling the most advanced applications of RNAi therapeutics in the clinic, and it continues to do so. We are excited to be working with Dicerna to be able to advance a needed therapeutic for the treatment of PH1," said Dr. Mark J. Murray, Tekmira's President and CEO.

"As a core pillar of our business strategy, we continue to engage in partnerships where our technology improves the risk profile and accelerates the development programs of our collaborators and provides meaningful non-dilutive financing to TKMR," added Dr. Murray.

“Dicerna is focused on realizing the full clinical potential of our proprietary pipeline of highly targeted RNAi therapies by applying proven technologies,” said Douglas Fambrough, Ph.D., Chief Executive Officer of Dicerna. “By drawing on Tekmira’s extensive and deep experience with lipid nanoparticle delivery to the liver, the agreement will streamline the development path for DCR-PH1. We look forward to initiating Phase 1 trials of DCR-PH1 in 2015, aiming to fill a high unmet medical need for patients with PH1.”

About RNAi
RNAi therapeutics have the potential to treat a number of human diseases by "silencing" disease-causing genes. The discoverers of RNAi, a gene silencing mechanism used by all cells, were awarded the 2006 Nobel Prize for Physiology or Medicine. RNAi trigger molecules often require delivery technology to be effective as therapeutics.

About Tekmira’s LNP Technology
Tekmira believes its LNP technology represents the most widely adopted delivery technology for the systemic delivery of RNAi triggers. Tekmira’s LNP platform is being utilized in multiple clinical trials by Tekmira and its partners. Tekmira’s LNP technology (formerly referred to as stable nucleic acid-lipid particles, or SNALP) encapsulates RNAi triggers with high efficiency in uniform lipid nanoparticles that are effective in delivering these therapeutic compounds to disease sites. Tekmira’s LNP formulations are manufactured by a proprietary method which is robust, scalable and highly reproducible, and LNP-based products have been reviewed by multiple regulatory agencies for use in clinical trials. LNP formulations comprise several lipid components that can be adjusted to suit the specific application.

About Primary Hyperoxaluria Type 1 (**PH1)**
PH1 is a rare, inherited liver disorder that often results in severe damage to the kidneys. The disease can be fatal unless the patient undergoes a liver-kidney transplant, a major surgical procedure that is often difficult to perform due to the lack of donors and the threat of organ rejection. In the event of a successful transplant, the patient must live the rest of his or her life on immunosuppressant drugs, which have substantial associated risks. Currently, there are no FDA approved treatments for PH1.

PH1 is characterized by a genetic deficiency of the liver enzyme alanine:glyoxalate-aminotransferase (AGT), which is encoded by the AGXT gene. AGT deficiency induces overproduction of oxalate by the liver, resulting in the formation of crystals of calcium oxalate in the kidneys. Oxalate crystal formation often leads to chronic and painful cases of kidney stones and subsequent fibrosis (scarring), which is known as nephrocalcinosis. Many patients progress to end-stage renal disease (ESRD) and require dialysis or transplant. Aside from having to endure frequent dialysis, PH1 patients with ESRD may experience a build-up of oxalate in the bone, skin, heart and retina, with concomitant debilitating complications. While the true prevalence of primary hyperoxaluria is unknown, it is estimated to be one to three cases per one million people.[1] Fifty percent of patients with PH1 reach ESRD by their mid-30s.[2]

About DCR-PH1
Dicerna is developing DCR-PH1, which is in preclinical development, for the treatment of PH1. DCR-PH1 is engineered to address the pathology of PH1 by targeting and destroying the messenger RNA (mRNA) produced by HAO1, a gene implicated in the pathogenesis of PH1. HAO1 encodes glycolate oxidase, a protein involved in producing oxalate. By reducing oxalate production, this approach is designed to prevent the complications of PH1. In preclinical studies, DCR-PH1 has been shown to induce potent and long-term inhibition of HAO1 and to significantly reduce levels of urinary oxalate, while demonstrating long-term efficacy and tolerability in animal models of PH1.

About Dicerna's Dicer Substrate Technology
Dicerna's proprietary RNAi molecules are known as Dicer substrates, or DsiRNAs, so called because they are processed by the Dicer enzyme, which is the initiation point for RNAi in the human cell cytoplasm. Dicerna's discovery approach is believed to maximize RNAi potency because the DsiRNAs are structured to be ideal for processing by Dicer. Dicer processing enables the preferential use of the correct RNA strand of the DsiRNA, which may increase the efficacy of the RNAi mechanism, as well as the potency of the DsiRNA molecules relative to other molecules used to induce RNAi.

About Tekmira
Tekmira Pharmaceuticals Corporation is a biopharmaceutical company focused on advancing novel RNAi therapeutics and providing its leading lipid nanoparticle (LNP) delivery technology to pharmaceutical partners. Tekmira has been working in the field of nucleic acid delivery for over a decade, and has broad intellectual property covering its delivery technology. Further information about Tekmira can be found at www.tekmira.com. Tekmira is based in Vancouver, Canada and Seattle, USA.

About Dicerna
Dicerna Pharmaceuticals, Inc., is a biopharmaceutical company focused on the discovery and development of innovative treatments for rare, inherited diseases involving the liver and for cancers that are genetically defined. The company is using its proprietary RNA interference (RNAi) technology platform to build a broad pipeline in these therapeutic areas. In both rare diseases and oncology, Dicerna is pursuing targets that have been difficult to address using conventional approaches, but where connections between targets and diseases are well understood and documented. The company intends to discover, develop and commercialize novel therapeutics either on its own or in collaboration with pharmaceutical partners.

Forward-Looking Statements and Information

This news release contains "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws (collectively, "forward-looking statements"). Forward-looking statements in this news release include statements about Tekmira's strategy, future operations, clinical trials, prospects and the plans of management; RNAi (ribonucleic acid interference) product development programs; the licensing and collaboration agreement with Dicerna; the upfront and development milestones, and royalties on future sales payable by Dicerna to Tekmira; the supply agreement with Dicerna; and initiation of Phase I trials of DCR-PH1 in 2015.

With respect to the forward-looking statements contained in this news release, Tekmira has made numerous assumptions regarding, among other things: LNP's status as a leading RNAi delivery technology. While Tekmira considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties and contingencies.

Additionally, there are known and unknown risk factors which could cause Tekmira's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements contained herein. Known risk factors include, among others: the use of Tekmira's LNP delivery technology for delivery of DCR-PH1 may have no positive effect on the treatment of PH1; Tekmira may not receive milestone payments or royalties from Dicerna in the quantum anticipated, or at all; the initiation of Phase I trials of DCR-PH1 may not occur as currently contemplated, or at all; Tekmira's products may not prove to be effective or as potent as currently believed; the FDA may refuse to approve Tekmira's products, or place restrictions on Tekmira's ability to commercialize its products; Tekmira may not obtain and protect intellectual property rights, and operate without infringing on the intellectual property rights of others; Tekmira may face competition from other pharmaceutical or biotechnology companies and the possibility that other organizations have made advancements in RNAi delivery technology that Tekmira is not aware of; anticipated pre-clinical and clinical trials may be more costly or take longer to complete than anticipated, and may never be initiated or completed, or may not generate results that warrant future development of the tested drug candidate; and economic and capital market conditions.

A more complete discussion of the risks and uncertainties facing Tekmira appears in Tekmira's Annual Report on Form 10-K and Tekmira's continuous disclosure filings, which are available at www.sedar.com or at www.sec.gov. All forward-looking statements herein are qualified in their entirety by this cautionary statement, and Tekmira disclaims any obligation to revise or update any such forward-looking statements or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, except as required by law.

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References

[1] Cochat, P, Rumsby, G. Primary hyperoxaluria. *The New England Journal of Medicine* 2013; 369(7): 649-658.
[2] Rare Kidney Stone Consortium. Primary Hyperoxaluria. 2010. Available at: http://www.rarekidneystones.org/hyperoxaluria/physicians.html. Accessed October 14, 2014.

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Media Contacts:

Tekmira:
Please direct all media inquiries to media@tekmira.com

Exhibit 10.42

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

MANUFACTURING AND CLINICAL TRIAL AGREEMENT

BETWEEN
THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD

AND

TEKMIRA PHARMACEUTICALS CORPORATION
ON BEHALF OF ITSELF AND ITS WHOLLY OWNED AFFILIATE,
PROTIVA BIOTHERAPEUTICS INC.

DATED DECEMBER 18TH, 2014

Table of Contents

MANUFACTURING AND CLINICAL TRIALAGREEMENT

This MANUFACTURING AND CLINICAL TRIAL AGREEMENT is made as of this 18th day of December, 2014) (the "**Effective Date**") between Tekmira Pharmaceuticals Corporation, on behalf of itself and its wholly owned Affiliate, Protiva Biotherapeutics, Inc. (collectively "**Tekmira**"), each a B.C. corporation having its principal place of business at 100-8900 Glenlyon Way, Burnaby, B.C.V5J 5J8, Canada, and The Chancellor Masters and Scholars of the University of Oxford ("**OXFORD**") whose administrative address is University Offices, Wellington Square, Oxford, OX1 2JD.

WHEREAS:

A. TEKMIRA is in the business of developing, testing, registering, and commercializing proprietary pharmaceutical products and is the developer of TKM-Ebola, an experimental drug product targeting the Ebola virus.

B. OXFORD is established for the advancement of learning by teaching and research and its dissemination by every means; and it undertakes clinical research in relation to the diagnosis, treatment and prevention of disease and the improvement of healthcare.

C. OXFORD wishes to conduct an investigator-led clinical trial currently entitled "Rapid Assessment of Potential Interventions & Drugs for Ebola (RAPIDE) – TKM" and wishes to purchase from TEKMIRA, and TEKMIRA wishes to manufacture and supply to OXFORD, TKM-Ebola and associated components for use in such clinical trial to be conducted by OXFORD or its designee in West Africa, all in accordance with the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the covenants, rights and obligations contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

Article 1 Interpretation

1.1 Definitions

For the purposes of this Agreement, the following terms will have the meanings set forth below.

1.1.1 "**Academic and Research Purposes**" means research, teaching or other scholarly use which is undertaken for the purposes of education and research.

1.1.2 "**Affiliate**" means, with respect to any Person, any Persons directly or indirectly controlling, controlled by, or under common control with, such other Person. For purposes hereof, the term "controlled" (including the terms "controlled by" and "under common control with"), as used with respect to any Person, will mean the direct or indirect ability or power to direct or cause the direction of the management and policies of such Person or otherwise direct the affairs of such Person, whether through ownership of securities representing fifty percent (50%) or more of the votes that may be voted at a meeting of shareholders of such Person, by contract or otherwise.

1.1.3 "**Adequate Procedures**" has the meaning set out in section 7(2) of the Bribery Act 2010 and any guidance issued under section 9 of that Act.

1.1.4 "**Adverse Reaction**" means any untoward and unintended response in a Trial Subject to the Investigational Medicinal Product which is related to any dose administered to that Trial Subject.

1.1.5 "**Agreement**" means this Manufacturing and Clinical Trial Agreement and all Exhibits attached hereto.

1.1.6 "**Applicable Requirements**" means the terms of this Agreement, the terms of the Ethics Committee Opinion, the Protocol, the terms of the Regulatory Approval, and all applicable laws, regulations, professional standards and good practice (including, where applicable, GCP and cGMP).

1.1.7 "**Arising IP**" means any and all Intellectual Property Rights arising from the conduct of the Clinical Trial other than TEKMIRA IP.

1.1.8 "**Associated Person**" has the meaning set out in section 8 of the Bribery Act 2010.

1.1.9 **Background IP**" means any and all Intellectual Property Rights owned by or licensed to a Party:

(a) existing prior to the date of this Agreement; and/or

(b) developed or acquired independently of this Agreement without use of or reliance upon the Confidential Information of the other Party.

1.1.10 "**Business Day**" means any day other than a Saturday, Sunday and statutory holiday in the Province of British Columbia, Canada and in London, England.

1.1.11 "**cGMP**" and "**current Good Manufacturing Practice**" means all applicable principles, guidelines and guidance for current good manufacturing practice as found in:

(a) the International Conference on Harmonization of Technical Requirements for the Registration of Pharmaceuticals for Human Use *ICH Tripartite Guideline Good Manufacturing Practice Guide for Active Pharmaceutical Ingredients Q7* (also published as CPMP/ICH/4106/00, 10 November 2000);

(b) the applicable provisions of Directive 2003/94/EC and further guidance as published by the European Commission in Volume 4 of *The rules governing medicinal products in the European Union*;

(c) foreign equivalents of the foregoing; and

(d) all other legal provisions, regulations, decisions or guidance of competent authorities which are applicable to any sites involved in the manufacture, quality control, quality assurance or supply of the Investigational Medicinal Product.

1.1.12 "**Chief Investigator**" means Dr Peter Horby or any successor appointed by OXFORD in accordance with Section 6.3.1, who shall be the person who takes primary responsibility for the conduct of the Clinical Trial on behalf of OXFORD.

1.1.13 "**Clinical Patient Care**" means diagnosing, treating and/or managing the health of persons under the care of an individual having the right to use the Arising Intellectual Property.

1.1.14 "**Clinical Samples**" means any biological material collected from a Trial Subject in the course of conducting the Clinical Trial.

1.1.15 "**Clinical Trial**" means the clinical trial currently entitled "Rapid Assessment of Potential Interventions & Drugs for Ebola (RAPIDE) - TKM" as more fully described in the Protocol.

1.1.16 "**Confidential Information**" means all proprietary or confidential information and materials, patentable or otherwise, of a Party or any of its Affiliates which are disclosed by or on behalf of such Party or any of its Affiliates to the other Party under the Non-Disclosure Agreement, or this Agreement and in connection with the Clinical Trial and clearly identified as "confidential" at the time of disclosure (or, if disclosed orally, identified as "confidential" at the time of disclosure and confirmed as such in writing within thirty (30) days of such oral disclosure).

1.1.17 "**Consent Documents**" means the information sheet which is to be provided to prospective Trial Subjects and the consent form which is to be signed by Trial Subjects in order to indicate their willingness to participate in the Clinical Trial.

1.1.18 "**Consortium Collaborator**" means each of OXFORD's collaborators for the Clinical Trial, which may include Médecins Sans Frontières (MSF), the World Health Organization (WHO), Institut Pasteur, Institut Pasteur de Dakar, Fondation Mérieux, and such other Person(s) as OXFORD may collaborate with from time to time for purposes of the Clinical Trial.

1.1.19 "**Contingency Fund**" shall have the meaning set forth in Section 4.1.3.

1.1.20 "**Damages**" means any costs, losses, claims, liabilities, fines, penalties, damages and expenses, court costs, and reasonable fees and disbursements of counsel, incurred by a Party hereto.

1.1.21 "**Data**" means all anonymous or pseudonymous information, which is not the product of analysis or interpretation, relating to the clinical findings or observations in the Clinical Trial necessary for the evaluation of the Investigational Medicinal Product, but excludes Safety Information and Trial Subject medical records located at the Trial Sites.

1.1.22 "**Data Controller**" has the meaning set out in section 1(1) of the DPA.

1.1.23 "**Deposit**" has the meaning set forth at Section 4.1.2.

1.1.24 "**Disclosing Party**" has the meaning set out in Section 8.1.3(b).

1.1.25 "**Dollars**" and "**$**" mean the lawful currency of the United States of America.

1.1.26 "**DPA**" means the Data Protection Act 1998.

1.1.27 "**DSUR**" means a development safety update report, prepared in accordance with applicable law and the International Conference on Harmonization of Technical Requirements for the Registration of Pharmaceuticals for Human Use *ICH Harmonized Tripartite Guideline: Development Safety Update Report E2F* (17 August 2010).

1.1.28 "**Ethics Committee**" means an independent body appointed in accordance with applicable law, whose responsibility is to protect the rights, safety and wellbeing of the Trial Subjects and to provide public assurance of that protection by, among other things, expressing an opinion on the Clinical Trial.

1.1.29 "**Ethics Committee Opinion**" means, in relation to the conduct of the Clinical Trial a current and valid favourable opinion expressed by an applicable Ethics Committee, setting out, among other things, the terms and conditions of its approval.

1.1.30 "**FOI Legislation**" means the Freedom of Information Act 2000 and the Environmental Information Regulations 2004.

1.1.31 "**Funding"** means the funding provided by the Wellcome Trust in support of the Clinical Trial (grant reference 106491/Z/14/Z).

1.1.32 "**GCP**" means all applicable principles, guidelines and guidance for current good clinical practice as found in:

(a) the *Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects*, adopted by the World Medical Assembly in June 1964, as amended by the General Assembly of the Association in October 1975, October 1983, September 1989, and October 1996. The Parties acknowledge that later amendments have not been accepted under applicable law and are excluded from this Agreement until such time as they are accepted under applicable law;

(b) the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use *ICH Tripartite Guideline for Good Clinical Practice E6(R1)* (also published as CMP/135/95, 1 July 1996);

(c) the applicable provisions of the Medicines for Human Use (Clinical Trials) Regulations 2004 and further guidance as published by the UK Medicines and Healthcare products Regulatory Agency;

(d) the applicable provisions of Directives 2001/20/EC and 2005/28/EC, and further guidance as published by the European Commission in Volume 10 of *The rules governing medicinal products in the European Union*; and;

(e) all other legal provisions, regulations, decisions or guidance of competent authorities which are applicable to the conduct of the Clinical Trial.

1.1.33 "**Indemnified Person**" means a TEKMIRA Indemnitee or an OXFORD Indemnitee.

1.1.34 "**Infusion Kit**" means the infusion kit to be used for the administration of Investigational Medicinal Product and having the components described in **Exhibit 1.1.34**.

1.1.35 "**Intellectual Property**" means the patents, patent applications, including without limitation, Arising IP, TEKMIRA Arising IP, utility, model and design patents and certificates of invention and all divisionals, continuations, continuations-in-part, reissues, renewals, extensions (including supplemental protection certificates), additions, registrations or confirmations to or of any such patent applications and patents, trade names, trademarks, copyright, trade secrets, trade dress, industrial and other designs, trade secrets, improvements, Know-How, and other forms of intellectual property, all whether or not registered or protected, or capable of such registration or protection.

1.1.36 "**Investigational Medicinal Product Dossier**" means TEKMIRA's dossier on each Investigational Medicinal Product to be used in the Clinical Trial, compiled in accordance with applicable law and submitted by TEKMIRA to the United States Food and Drug Administration or any successor agency thereof ("**FDA**") in support of an application for Regulatory Approval.

1.1.37 "**Investigator**" means a person (including, if applicable, the Chief Investigator) responsible for the conduct of the Clinical Trial at a Trial Site and, if the Clinical Trial is conducted by a team of persons at a Trial Site, the person responsible for that team.

1.1.38 "**Investigational Medicinal Product**" means TKM-Ebola presented in wet format, targeting the Guinea variant of the Ebola virus having the product description set forth in **Exhibit 1.1.38**.

1.1.39 "**Investigator Brochure**" means the investigator brochure provided by TEKMIRA containing a detailed description of the Investigational Medicinal Product's chemical structure and siRNA sequence, and a summary of the clinical and non-clinical data related to TKM-Ebola provided by TEKMIRA prior to the commencement of the Clinical Trial, as well as any revisions thereto that may be delivered during the course of the Clinical Trial.

1.1.40 "**Know-How**" means, to the extent not generally known, any and all non-patentable technical, scientific and other know-how and information, trade secrets, knowledge, technology, means, methods, processes, procedures, practices, formulas, instructions, skills, and/or techniques (however recorded or preserved).

1.1.41 "**Manufacture**" or "**Manufacturing**" means, with respect to the Investigational Medicinal Product, all or a portion of the activities associated with the production and processing of such Investigational Medicinal Product, including without limitation, project planning, procurement of components, consumables and/or raw materials, vendor qualification, batch record development, manufacture, quality control testing, quality assurance, storage and shipping.

1.1.42 "**Non-Disclosure Agreement**" means the Non-Disclosure Agreement dated effective August 19, 2014 between TEKMIRA and the International Severe Acute Respiratory and Emerging Infection Consortium at OXFORD.

1.1.43 "**OXFORD Indemnitee**" has the meaning set forth in Section 10.2.

1.1.44 "**OXFORD Protocol**" and "**Protocol**" means the protocol to be used in the Clinical Trial, which protocol may be based in whole or in part on the TEKMIRA Protocol. For avoidance of doubt, all references to the term "**Protocol**" shall mean the OXFORD Protocol.

1.1.45 "**Party**" means OXFORD or TEKMIRA, and "**Parties**" means OXFORD and TEKMIRA.

1.1.46 "**Person**" means a natural person, corporation, partnership, trust, joint venture, limited liability company, non-governmental organization, or any other legal entity.

1.1.47 "**Personal Data**" has the meaning set out in section 1(1) of the DPA and relates only to Personal Data, or any part of such Personal Data, of which OXFORD is a Data Controller and which it has obtained in the course of conducting the Clinical Trial.

1.1.48 "**Personnel**" means the Chief Investigator and any Investigator or other individuals involved in the conduct of the Clinical Trial, whether or not employed by OXFORD.

1.1.49 "**Pharmacovigilance**" means the science and activities relating to the detection, assessment, understanding and prevention of adverse events or any other drug-related problem, or any updated definition published by the World Health Organization from time to time.

1.1.50 "**Tekmira Protocol**" means TEKMIRA's treatment protocol entitled "Treatment Protocol for Use of TKM-130803 Injection in Patients with Confirmed or Suspected Ebola Virus Infection" provided by TEKMIRA to OXFORD.

1.1.51 "**Receiving Party**" has the meaning set out in Section 8.1.3(b).

1.1.52 "**Regulatory Approval**" means, in relation to the conduct of the Clinical Trial, any current and valid grant, renewal, validation, authorization, certificate and/or registration of a Regulatory Authority required under applicable law.

1.1.53 "**Regulatory Authorities**" means the United States Food and Drug Administration or any successor agency thereof ("**FDA**"), the European Medicines Agency ("**EMA**") and any other like governmental authorities in West Africa regulating the importation, distribution, and/or use of therapeutic substances.

1.1.54 "**Relevant Requirements**" means all applicable laws relating to anti-bribery and anti-corruption, including the Bribery Act 2010, in connection with a Party's conduct under this Agreement.

1.1.55 "**Representatives**" means, with respect to TEKMIRA, its Affiliate and their respective directors, officers, employees, consultants, advisors, contractors and agents; and with respect of OXFORD, each Consortium Collaborator and their respective directors, officers, employees, consultants, advisors, contractors and agents (including, where appropriate, students). For clarity, "Representatives" includes "Personnel" as defined above.

1.1.56 "**Regulatory Support**" means (a) the design and performance of stability studies for the Investigational Medicinal Product, and (b) the updating of Investigational Medicinal Product regulatory filings with data generated from said stability studies.

1.1.57 "**Results**" means any and all discoveries, theories, Know-How, computer software, notes, chemical compounds, biological material, models, prototypes, drawings, information, Data, analyses, case report forms, analytical results, interpretations, results and reports (other than Trial Subject medical records located at the Trial Sites) generated in the course of conducting the Clinical Trial, whether preliminary or final.

1.1.58 "**Safety Information**" means all filings, submissions and reports concerning the safety of the Investigational Medicinal Product or Pharmacovigilance with or to any Regulatory Authority or Ethics Committee, or a body designated or recognized by any Regulatory Authority or Ethics Committee for such purposes.

1.1.59 "**Service Fees**" means the fees in US Dollars to be paid by OXFORD to TEKMIRA for the provision of Services as more fully described in Section 4.1.

1.1.60 "**Services**" means the (a) Manufacture and supply of cGMP grade Investigational Medicinal Product sufficient to provide a full treatment course to one hundred (100) patients based on estimated batch yield and clinical dose as dictated by body weight, (b) supply of approximately one hundred (100) single use Infusion Kits necessary for gravity fed intravenous infusion, (c) Regulatory Support, and (d) provision of a TEKMIRA Protocol, Investigator Brochures, and instructions for the handling and storage of Investigational Medicinal Product and for the use of Infusion Kits.

1.1.61 "**Sponsor**" means OXFORD, as the Party taking responsibility for the initiation, management and financing (or arranging the financing) of the Clinical Trial, and the regulatory responsibilities which accompany the role.

1.1.62 "**TEKMIRA Arising IP**" means (a) any and all Arising IP relating directly to any development of the Investigational Medicinal Product that would, if practiced, infringe TEKMIRA's Background IP in the Investigational Medicinal Product and (b) all improvements and/or modifications directed to Tekmira IP regardless of the Representative making such improvements and/or modifications.

1.1.63 "**TEKMIRA Confidential Information**" means the TKEMIRA Protocol, Investigator Brochure, TEKMIRA IP, TEKMIRA Arising IP, stability study design, data and results, and any part or whole of the sum of all images, data, records, reports, charts, information and documentation in physical, electronic or other form which are comprised of and/or derived from Confidential Information, Intellectual Property and/or materials disclosed or provided by or on behalf of TEKMIRA.

1.1.64 "**TEKMIRA Indemnitee**" has the meaning set forth in Section 10.1.

1.1.65 "**TEKMIRA IP**" means (a) all materials, information and Confidential Information disclosed and/or supplied by TEKMIRA or its Representatives to OXFORD or OXFORD's Representatives, and (b) all patents and patent applications owned or controlled by TEKMIRA whether or not disclosed to OXFORD.

1.1.66 "**Term**" shall have the meaning set forth in Section 11.1.

1.1.67 "**Trial Site**" means any hospital, health centre, clinic, surgery or other establishment, treatment center or facility where the trial or any part of it is carried out.

1.1.68 "**Trial Site Agreement**" means the agreement entered into between OXFORD and each Trial Site (or the legal entity controlling the Trial Site) to govern the activities to be performed at that Trial Site in accordance with the Protocol.

1.1.69 Trial Subject" means an individual, whether a patient or not, who participates in the Clinical Trial:

(a) as a recipient of the Investigational Medicinal Product or of some other treatment or product; or

(b) without receiving any treatment or product, as a control.

1.1.70 "**Wellcome Trust**" shall mean the UK charity who are providing funding to OXFORD in support of the Clinical Trial (including in support of the Services provided under this Agreement).

Article 2 Engagement

2.1 Appointment of TEKMIRA

OXFORD hereby engages TEKMIRA to provide Services and Regulatory Support to facilitate the conduct of the Clinical Trial, at OXFORD's sole cost and expense. TEKMIRA hereby agrees to perform the Services and provide the Regulatory Support in accordance with the estimated time frames set forth in **Exhibit 2.1**. TEKMIRA shall commence procurement of raw materials and components within one (1) Business Day of TEKMIRA's receipt of the Deposit.

2.2 Change Orders

If OXFORD desires to change any aspect of the Services, including, without limitation, any change to the variant of the Ebola virus to be targeted or the quantity of Investigational Medicinal Product to be delivered, OXFORD shall notify TEKMIRA in writing as soon as reasonably possible setting forth the nature of such change. TEKMIRA shall respond in writing as soon as reasonably possible to inform what effect, if any, such required change may have on the Service Fees, time frame or other parameter governing the delivery of Services, and the Parties shall make good faith efforts to execute a mutually agreeable change order ("**Change Order**") as soon as reasonably possible. No Change Order will be effective unless and until it has been signed by an authorized officer of each Party. If agreed between the Parties, TEKMIRA shall continue to provide Services during the Parties' investigation or negotiation of such Change Order, provided such efforts would facilitate the completion of the work envisioned in the proposed Change Order.

2.3 OXFORD performance of the Clinical Trial

2.3.1 It is the intention that OXFORD shall be the Sponsor of Clinical Trials utilizing the Investigational Medicinal Product, subject to obtaining all required approvals and in accordance with applicable law and regulatory requirements. If OXFORD is not the Sponsor, TEKMIRA shall have the right to either approve the assignment of this Agreement by OXFORD, or enter into a Clinical Trial Agreement with the sponsor of the Clinical Trial. OXFORD shall use its best efforts to conduct the Clinical Trial in accordance with the Applicable Requirements.

2.3.2 Although Oxford will conduct any Clinical Trials in accordance with 2.3.1, the Parties acknowledge and agree that Oxford does not undertake that any work carried out under or pursuant to this Agreement will lead to any particular result, nor is the success of such work guaranteed.

2.4 TEKMIRA performance of Clinical Trial activities

2.4.1 To the extent that OXFORD delegates any activity to TEKMIRA under this Agreement for which OXFORD has regulatory responsibility under applicable law, TEKMIRA shall carry out such regulatory activity in accordance with the Applicable Requirements. The following activities are hereby delegated to TEKMIRA:

(a) the Manufacture and supply of the Investigational Medicinal Product and the Infusion Kit;

(b) the preparation and supply of the Investigator's Brochure;

(c) the preparation and supply of the Investigational Medicinal Product Dossier;

(d) the preparation and supply of the DSUR.

Article 3 Manufacturing Services

3.1 Use of Materials and Investigational Medicinal Product

OXFORD agrees that it shall use all reasonable endeavours to:

3.1.1 control and use Investigational Medicinal Product, Infusion Kits and TEKMIRA Confidential Information in compliance with this Agreement;

3.1.2 use Investigational Medicinal Products, Infusion Kits and TEKMIRA Confidential Information solely in the performance of the Clinical Trial and for no other purpose whatsoever;

3.1.3 except with the prior written consent of TEKMIRA not distribute or release any Investigational Medicinal Product, Infusion Kits, TEKMIRA Confidential Information or TEKMIRA IP, to any Person other than those Persons who require access to same for the conduct of the Clinical Trial, unless to any Regulatory Authorities as part of a statutory request, in which latter case, OXFORD shall promptly notify TEKMIRA in writing of such request;

3.1.4 not duplicate or reverse engineer, or in any other way attempt to determine the identity, chemical composition or sequence of the Investigational Medicinal Product; and

3.1.5 inform each Consortium Collaborator in writing of their obligation to comply with this Section 3.1.

3.2 Storage

OXFORD shall use all reasonable endeavours to maintain (or procure that the same are maintained at Trial Sites) adequate facilities for the storage of Investigational Medicinal Product and Infusion Kits, store Investigational Medicinal Product in accordance with the storage and handling specifications, and maintain handling and storage records pertaining thereto.

3.3 Transport and Risk of Loss

3.3.1 TEKMIRA will package, label and ship the Investigational Medicinal Product using TEKMIRA's standard shipping, packaging and labeling procedures, which labeling procedures shall conform with FDA requirements, and shall ship Investigational Medicinal Product to the address specified in the Shipping Details (as defined in Exhibit 3.3.1), in accordance with TEKMIRA's packing and shipping specifications. Shipment will be DAP (Incoterms 2010) and subject to the provisions of **Exhibit 3.3.1**.

3.3.2 TEKMIRA shall purchase sufficient insurance coverage for fire and related perils in respect of property damage for replacement value for the period of time during which raw materials and components funded by the Deposit is located at TEKMIRA's facilities, which coverage includes, amongst other things, accidental damage, malicious damage, and fire.

3.4 Reporting and Records

In order to enable TEKMIRA to comply with its regulatory obligations to Regulatory Authorities worldwide:

3.4.1 OXFORD will keep TEKMIRA advised of the status of the Clinical Trial through regular telephone conversations and E-mails and will share with TEKMIRA in a timely manner, all Results and observations made during the Clinical Trial. OXFORD shall have the right to remove all patient identifiers prior to disclosure of any Results in accordance with the DPA and other privacy laws. In the event of a serious adverse event, OXFORD shall notify TEKMIRA immediately, but in no case more than twenty-four (24) hours following the occurrence of such serious adverse event.

3.4.2 OXFORD will keep complete and accurate written records of the status and progress of each patient in the Clinical Trial in accordance with the OXFORD Protocol and on the receipt and disposition of Investigational Medicinal Product, and make same available to TEKMIRA upon TEKMIRA's reasonable request subject to OXFORD's right to remove all patient identifiers prior to disclosure in accordance with the DPA and other privacy laws. For the purposes of the communications contemplated in this Section 3.4, OXFORD's primary contact shall be Dr. Peter Horby, and TEKMIRA's primary contact shall be Dr. Mark Kowalski.

Article 4 Compensation

4.1 [***]

4.1.1 [***].

4.1.2 [***].

4.1.3 [***].

4.1.4 [***].

4.1.5 [***].

4.1.6 [***].

4.2 Future Development and Use of the Investigational Medicinal Product

If the Investigational Medicinal Product is shown to be safe and efficacious, TEKMIRA agrees that it shall use reasonable endeavors to, through itself of its designees, (a) make the Investigational Medicinal Product available for further research purposes (in so far as production capacity allows) to evaluate the use of the Investigational Medicinal Product in patients with Ebola Virus Disease including investigations of safety and efficacy; (b) seek registration of the Investigational Medicinal Product for use in patients with Ebola Virus Disease with appropriate regulatory authorities; and (c) make the Investigational Medicinal Product available for procurement by relevant parties, international agencies, and/or governments of any country classified as a low or lower middle income country by the Organization for Economic Co-operation and Development affected by Ebola Virus Disease in sufficient quantities to meet demand (in so far as production capacity allows) [***].

Article 5 Regulatory Compliance, Support and Responsibilities

5.1 Anti-Bribery

5.1.1 Each Party shall:

(a) comply with all Relevant Requirements;

(b) have and shall maintain in place throughout the Term its own policies and procedures, including Adequate Procedures under the Relevant Requirements, to ensure compliance with the Relevant Requirements and will enforce them where appropriate; and

(c) promptly report to the other Party any request or demand for any undue financial or other advantage of any kind received by it in connection with this Agreement.

5.1.2 Each Party shall ensure that any Associated Person who it involves in the performance of any obligations under this Agreement and/or the provision of support services does so only on the basis of a written agreement which imposes on and secures from such Associated Person terms equivalent to those imposed on the Parties under this Section 5.1.

5.1.3 The Parties acknowledge and agree that any breach of this Section 5.1 (however trivial) shall be deemed to be an irremediable material breach of this Agreement.

5.2 Clinical Samples

5.2.1 All Clinical Samples shall, unless otherwise agreed in writing, be held under the custodianship of OXFORD with any storage and transfer to be always in accordance with all Applicable Requirements. OXFORD shall exercise its rights and duties as custodian of the Clinical Samples in accordance with the relevant Trial Subject Consent Documents, any relevant Ethics Committee Opinion, Applicable Requirements and this Section 5.2.

5.2.2 All use of the Clinical Samples, other than for the purposes of the Clinical Trial, shall be subject to a determination as to the safety and scientific validity of the proposed use of the Clinical Samples (taking into account the quantity of the Clinical Samples available). The final decision in relation to such use shall be taken by OXFORD, as custodian of the Clinical Samples, always in accordance with the Trial Subject Consent Documents and all Applicable Requirements.

5.3 Regulatory Support

5.3.1 TEKMIRA will be responsible for (a) designing and implementing stability study protocols for the testing of Investigational Medicinal Product and reporting out-of-specification results, if any, to OXFORD during the duration of the Clinical Trial; and (b) updating TEKMIRA's regulatory filings for the Investigational Medicinal Product with all results generated in the performance of the stability studies. Parameters for the stability study design are set forth in **Exhibit 5.3.1** attached hereto.

5.4 Responsibilities

5.4.1 TEKMIRA will be responsible for maintaining and fulfilling all cGMP requirements that are imposed upon TEKMIRA as the Manufacturer of the Investigational Medicinal Product.

5.4.2 OXFORD will be responsible for (a) obtaining and maintaining all applicable permits (including informed patient consent), licenses and such approvals to the extent necessary for the conduct of the Clinical Trial, and (b) complying with all applicable GCPs as well as local government laws and regulations in the conduct of the Clinical Trial.

5.5 Records, Audits and Inspections

5.5.1 Each Party shall maintain records in relation to the conduct of the Clinical Trial (appropriate to its role and responsibilities under this Agreement) in accordance with GCP and applicable law; and the Parties shall retain such records for the later of fifteen (15) years from the conclusion of the Clinical Trial (however determined) or such longer period of time as may be required by applicable law, including the record retention requirements of the United States Food and Drug Administration.

5.5.2 Each Party shall allow an independent auditor, appointed by mutual written agreement of the Parties, during normal working hours and upon reasonable written notice to inspect that portion of its facilities and records solely for the purpose of auditing the Party's compliance with GCP, GMP and applicable law in relation to the manufacture and supply of the Investigational Medicinal Product and/or the conduct of the Clinical Trial. Any such auditor shall be accompanied by personnel of the audited Party at all times, shall be qualified to conduct such audits and shall comply with all applicable rules and regulations relating to facility security and health and safety.

5.5.3 Each Party shall make its facilities and records available for inspection by representatives of any Regulatory Authority in compliance with all applicable laws. A Party shall notify the other Party within three (3) days of its receipt of any correspondence, notice or any other indication whatsoever of Regulatory Authority inspection, investigation or other inquiry, or other notice or communication from any Regulatory Authority of any type, that could reasonably be expected to affect the manufacture and supply of the Investigational Medicinal Product and/or the conduct of the Clinical Trial in a material way.

5.5.4 To the extent that any inspection, investigation or other inquiry pursuant to Section 5.5.3 concerns the Investigational Medicinal Product supplied, or to be supplied, or the conduct of the Clinical Trial, the affected Party shall invite and allow representatives of the other Party to be present during the applicable portions of any such inspection, investigation or other inquiry. The affected Party shall consult with the other Party with respect to any response to observations and notifications received in connection with any such inspection, investigation or other inquiry and will give the other Party an opportunity to comment upon (which comments shall be considered by the affected Party in good faith) any proposed response before it is submitted; provided, however, that TEKMIRA shall not be required to disclose to or consult with OXFORD regarding any manufacturing or equipment specifications, processes, methods or Know-How covering the Investigational Medicinal Product.

5.6 Variation

In the event that:

5.6.1 any Regulatory Authority requires a Party to implement any changes to the Clinical Trial that affects this Agreement;

5.6.2 any Ethics Committee requires a Party to implement any changes to the Clinical Trial that affects this Agreement;

5.6.3 any changes to this Agreement are required in order to comply with changes to applicable law; or

5.6.4 any Party, in its reasonable opinion, considers it to be necessary to change this Agreement to ensure: (a) the safety of Trial Subjects; (b) the scientific validity of the Clinical Trial; or (c) that the conditions and principles of GCP and/or cGMP are satisfied or adhered to in relation to the Clinical Trial

the Parties shall not unreasonably withhold or delay agreement to such change or its implementation; nor shall a Party impose unreasonable conditions (having regard to the other terms of this Agreement) in implementing the change. Any revision to the Service Fees required by a variation pursuant to this Section shall (to the extent possible) be calculated using the same or an equivalent method to that which was used to calculate the Service Fees prior to such change.

Article 6 Clinical Trial

6.1 Protocol Development

6.1.1 OXFORD and TEKMIRA will mutually agree upon the OXFORD Protocol, which will be designed utilizing the TEKMIRA Protocol for instructions related to Product administration.

6.1.2 Once the parties have mutually agreed upon the OXFORD Protocol, if OXFORD wishes to make further changes to the OXFORD Protocol after TEKMIRA's approval has been granted, TEKMIRA shall again have the right receive, review, comment and approve in writing each new change. In this latter case, TEKMIRA may only withhold approval of the OXFORD Protocol for reasons relating to patient safety or data integrity, as determined by changes in mode or rate of drug administration, dosage, method of tracking and/or reporting patient adverse events, frequency or nature of safety monitoring, inclusion criteria, exclusion criteria, use of concomitant medications, randomization, stopping rules, use of placebo, or other elements relating to patient care.

6.1.3 TEKMIRA may, subject to Section 11.3.6 (return of Wellcome Trust funding), decline to ship Investigational Medicinal Product and terminate this Agreement in the event that the OXFORD Protocol or any further change thereto is not approved by TEKMIRA. If after shipment of the Investigational Medicinal Product, the OXFORD Protocol or any further change thereto is not approved by TEKMIRA, the Parties shall mutually terminate the Agreement, and subject to Section 11.3.6 (return of Wellcome Trust funding) OXFORD shall promptly return all Investigational Medicinal Product to TEKMIRA or destroy same and confirm destruction in writing, at TEKMIRA's sole election.

6.2 Conduct of Clinical Trial

6.2.1 The Parties acknowledge and agree that OXFORD shall be the Sponsor of the Clinical Trial.

6.2.2 Nothing in this Agreement shall prevent OXFORD or its Representatives from taking appropriate urgent measures (including, if reasonably appropriate, suspension of the Clinical Trial) in order to protect Trial Subjects against any immediate hazard to their health or safety. If such measures are taken by OXFORD or its Representatives, it shall as soon as reasonably practicable give written notice to TEKMIRA of the measures taken and the circumstances giving rise to those measures.

6.2.3 Although OXFORD will conduct the Clinical Trial in accordance with Section 6.2.2 the Parties acknowledge and agree that OXFORD does not undertake that any work carried out under or pursuant to this Agreement will lead to any particular result, nor is the success of such work guaranteed.

6.2.4 TEKMIRA shall provide to OXFORD such information and cooperation as OXFORD may reasonably request to enable OXFORD to conduct the Clinical Trial.

6.3 Personnel

6.3.1 OXFORD shall use its reasonable endeavours to retain the services of the Chief Investigator during the Term; and to ensure that all Personnel are appropriately qualified by education, training and experience to perform the tasks given to them.

6.3.2 OXFORD shall use its reasonable endeavours to ensure that the Chief Investigator does not, during the Term, conduct any other clinical trial which might adversely affect OXFORD's ability to perform its obligations under this Agreement.

6.3.3 OXFORD shall promptly notify TEKMIRA if at any time during the Term the Chief Investigator is unable or unwilling to continue the direction or supervision of the Clinical Trial. Within sixty (60) days after such incapacity or expression of unwillingness, OXFORD shall nominate a successor to be the Chief Investigator. TEKMIRA shall not unreasonably decline to accept the nominated successor, but if the successor is not acceptable to TEKMIRA on reasonable and substantial grounds, then either Party may terminate this Agreement on ninety (90) days' written notice to the other Party.

6.4 Ethical and Regulatory Approvals

6.4.1 OXFORD and the Chief Investigator shall, subject to Section 6.4.2, be responsible for obtaining all necessary Ethics Committee Opinions and Regulatory Approvals. OXFORD shall provide to TEKMIRA written status reports on such applications at reasonable intervals.

6.4.2 TEKMIRA shall, in relation to the Investigational Medicinal Product, be responsible for compiling the Investigational Medicinal Product Dossier. TEKMIRA shall grant OXFORD, permission to provide the applicable Regulatory Authorities reference access to TEKMIRA's Investigational Medicinal Product Dossier in a timely manner sufficient to meet OXFORD's obligations under this Agreement.

6.4.3 The Parties acknowledge and agree that OXFORD cannot: (a) start the Clinical Trial or cause the Clinical Trial to be started; or (b) conduct the Clinical trial; unless the conditions set out in Section 6.4.4 have been satisfied.

6.4.4 The conditions referred to in Section 6.4.3 are:

(a) the receipt of the relevant Ethics Committee Opinion by OXFORD; and

(b) the receipt of the Regulatory Approval by OXFORD.

6.5 Trial Sites

6.5.1 OXFORD shall enter into Trial Site Agreements which set out the terms under which OXFORD as Sponsor and each Trial Site shall collaborate in the performance of the Clinical Trial.

6.5.2 The Parties acknowledge that it may not be possible to accurately forecast the recruitment of Trial Subjects, and that the number of Trial Sites may need to be reviewed from time to time.

6.5.3 OXFORD shall use its reasonable endeavours to select Trial Sites and Investigators who are experienced in, or shall be trained in, the conduct of clinical trials in the therapeutic field relevant to the Clinical Trial. OXFORD shall provide to TEKMIRA written status reports on the Trial Sites appointed by OXFORD at reasonable intervals.

6.5.4 The responsibilities of a Trial Site are detailed in the Protocol and shall be further detailed in the applicable Trial Site Agreement, which shall be consistent with the terms of this Agreement and impose consistent obligations on the Trial Sites.

6.6 Data Protection

6.6.1 The Parties acknowledge and agree that, notwithstanding any other provision contained in this Agreement, OXFORD shall not, and shall procure that any Representative of OXFORD does not, disclose any Personal Data of a Trial Subject to TEKMIRA, except where strictly necessary and where permitted by applicable law (including the DPA).

6.6.2 TEKMIRA undertakes, not to identify, or attempt to identify, a Trial Subject from any information supplied to it by OXFORD or its Representatives under this Agreement.

6.6.3 The Parties shall (and shall ensure that their respective Representatives shall) comply with the requirements of the DPA (and related legislation) in conducting the Clinical Trial or otherwise in connection with this Agreement.

6.7 Pharmacovigilance

6.7.1 OXFORD, as Sponsor, shall be responsible for reporting all Safety Information in relation to the Clinical Trial to the Regulatory Authority and/or the Ethics Committee in accordance with applicable law.

6.7.2 OXFORD shall report all Safety Information in relation to the Clinical Trial to TEKMIRA as soon as reasonably practicable and, in any event, not later than the date on which OXFORD reports any such Safety Information to the Regulatory Authority or, as the case may be, the Ethics Committee.

6.7.3 OXFORD shall, as soon as reasonably practical, during and after the conclusion of the Clinical Trial (however determined), provide TEKMIRA with access to all Safety Information and other data relating to Adverse Reactions (collected in accordance with the Protocol) in relation to the Clinical Trial (including the right to make copies) to the extent necessary for TEKMIRA's preparation of the DSUR and for regulatory purposes only.

6.7.4 TEKMIRA shall, during the Term, promptly report to OXFORD all Safety Information relating to other clinical trials that test or use the Investigational Medicinal Product which it has contributed to the Clinical Trial and for which OXFORD is not the Sponsor.

6.7.5 TEKMIRA shall, in relation to the Investigational Medicinal Product, be responsible for compiling the DSUR during the Term and thereafter in relation to the DSUR required at the end of the then current reporting year. TEKMIRA shall provide each DSUR to OXFORD in a timely manner sufficient to meet OXFORD's obligations under applicable law.

6.8 Insurance

OXFORD, as Sponsor, shall have, and maintain in place for the Term and for a period of five years thereafter, an insurance policy to provide legal liability compensation for injury caused to a Trial Subject by participation in this Clinical Trial. TEKMIRA confirms that it shall have, and maintain in place for the Term and for a period of five years thereafter, adequate insurance related to its liabilities under this Agreement, in particular as regards the Manufacture and supply of the Investigational Medicinal Product.

Article 7 Intellectual Property

7.1 Background IP

7.1.1 Nothing in this Agreement shall affect the ownership of any Background IP. Without limiting the generality of the foregoing, OXFORD acknowledges and agrees that all materials, information and Confidential Information disclosed and/or supplied by TEKMIRA or its Representatives to OXFORD or OXFORD's Representatives are the exclusive property of TEKMIRA (collectively, "**TEKMIRA IP**") and that TEKMIRA shall retain all right, title and interest, including all Intellectual Property rights in and to such TEKMIRA IP.

7.1.2 Each Party grants to the other Party a non-exclusive, worldwide, royalty-free license under its Background IP solely to the extent provided by a Party for use within the Clinical Trial and necessary for the other Party to perform its obligations under this Agreement. The license granted under this Section 7.1.2 shall be sub-licensable solely to the extent necessary for the conduct of the Clinical Trial in accordance with this Agreement.

7.2 Arising IP

7.2.1 All Arising IP shall be owned by OXFORD, except that all TEKMIRA Arising IP shall be owned by TEKMIRA.

7.2.2 OXFORD shall disclose in writing to TEKMIRA all TEKMIRA Arising IP of which OXFORD becomes aware, promptly but no later than fourteen (14) days following OXFORD becoming aware of same and shall assign and cause its Representatives to assign to TEKMIRA without additional consideration, all right, title and interest in and to TEKMIRA Arising IP.

7.2.3 OXFORD hereby grants to TEKMIRA, subject to Section 7.2.4, a non-exclusive, worldwide, perpetual, fully paid-up, royalty-free, sublicensable license under all Arising IP conceived or reduced to practice by OXFORD or its Representatives, for its own internal research and regulatory filings. If this Agreement is terminated for TEKMIRA's material breach, this licensee will automatically terminate.

7.2.4 Subject to TEKMIRA calling for (in writing) and completing a license agreement within six months after the completion of the Clinical Trial (or by such other date as the Parties may agree), the OXFORD is willing to grant to TEKMIRA a license to make, have made, use and market products and services derived from the Arising IP. Subject to Section 7.2.6, the license would be exclusive. Under such license, TEKMIRA would agree to pay:

(a) a reasonable proportion of all up front, milestone and other payments received by TEKMIRA and attributable in whole or in part to Arising IP;

(b) reasonable royalties based on the net selling prices of all licensed products (that is to say, all products and services marketed by TEKMIRA or TEKMIRA's sub-licensees and derived from, produced by, or containing Arising IP); and

(c) reasonable royalties on any cross licensing and other non-monetary compensation received by TEKMIRA from the exploitation of Arising IP.

The remaining terms of the license would be settled between the Parties in good faith negotiations: if at any point they were unable to agree, the point in dispute would be settled in London by an arbitrator. The arbitrator would be a barrister specializing in intellectual property law, who had no prior association with either Party or was otherwise acceptable to both Parties. He or she would be nominated for the purpose by the then Chairman of the General Council of the Bar. OXFORD may fulfil its obligations under Section 7.2.4 through its technology transfer company, Isis Innovation Limited, and may take such actions (including in respect of the Arising IP) as may be necessary or desirable for this purpose.

7.2.5 TEKMIRA hereby grants to OXFORD and each Consortium Collaborator, a non-exclusive, worldwide, perpetual, fully paid-up, royalty-free, sublicensable license under all TEKMIRA Arising IP (a) during the Clinical Trial, and (b) for any future administration of Investigational Medicinal Product supplied by TEKMIRA or TEKMIRA's licensees or designees. If this Agreement is terminated for OXFORD's material breach, this licensee will automatically terminate.

7.2.6 The University and its Representatives shall have the irrevocable right in perpetuity to use any and all Arising IP for Academic and Research Purposes and for the purpose of Clinical Patient Care.

7.3 Perfection of Ownership Rights

7.3.1 OXFORD agrees to and shall cause each Consortium Collaborator to:

(a) report to TEKMIRA all TEKMIRA Arising IP created, conceived or reduced to practice by it or its Representatives as a result of conducting the Clinical Trial within fourteen (14) days of becoming aware of such discoveries or inventions;

(b) cooperate and cause its Representatives to cooperate with TEKMIRA, at TEKMIRA's expense, in perfecting TEKMIRA's ownership and other proprietary rights in respect of any TEKMIRA Arising IP to which TEKMIRA is entitled pursuant to this Article 7; and

(c) execute, assign and deliver, and cause its Representatives to execute, assign and deliver to TEKMIRA, at TEKMIRA's expense, any documents and any other instruments of conveyance and transfer that TEKMIRA may reasonably require with respect to TEKMIRA's rights to TEKMIRA Arising IP under this Article 7.

Article 8 Confidentiality

8.1 Confidentiality Obligations

8.1.1 OXFORD acknowledges and agrees that (a) all information provided by TEKMIRA in confidence to OXFORD or OXFORD's Representatives under the Non-Disclosure Agreement constitutes TEKMIRA Confidential Information for the purposes of this Agreement, and (b) the provisions of this Article 8 shall apply to all TEKMIRA Confidential Information received by OXFORD or its Representatives on or after the effective date of the Non-Disclosure Agreement.

8.1.2 Each Party (the "Receiving Party") will keep all Confidential Information received from the other Party (the "Disclosing Party") in confidence for a period of seven (7) years from the date of receipt thereof and will not, without the Disclosing Party's prior written consent, disclose any of the Disclosing Party's Confidential Information to any person or entity, except to those of its Representatives who (i) require such Confidential Information for the performance of this Agreement or the conduct of the Clinical Trial, (ii) are made aware of the confidential nature of the Confidential Information, and (iii) are bound by obligations of confidentiality with regard to any Confidential Information received. Each Party shall remain liable for the uses and disclosures of its Representatives.

8.1.3 The obligation of confidentiality set out in Section 8.1.2 shall not apply to information that:

(a) is already in the Receiving Party's or any of its Representatives' possession at the time of disclosure, as can be demonstrated by the Receiving Party by written records;

(b) is or later becomes part of the public domain other than as a consequence of a breach of an obligation of confidentiality owed to the Disclosing Party by the Receiving Party;

(c) is received from a third party having no obligations of confidentiality to the Disclosing Party;

(d) is independently developed by the Receiving Party or any of its Representatives as can be demonstrated by the Receiving Party by written records; or

(e) is required by law or regulation to be disclosed by the Receiving Party, provided that as far as legally possible the Receiving Party shall first have given notice to the Disclosing Party and given the Disclosing Party a reasonable opportunity to oppose such disclosure and if disclosed, the Confidential Information disclosed shall be limited to that Confidential Information which is legally required to be disclosed in response to such law or regulation.

A combination of features will not be deemed to be within the foregoing exceptions merely because individual features are in the public domain or in the possession of the Receiving Party unless the combination itself is in the public domain or in the possession of the Receiving Party.

8.1.4 If OXFORD receives a request under the FOI Legislation to disclose any information which, under this Agreement, is TEKMIRA's Confidential Information, it will notify TEKMIRA and will consult with TEKMIRA. TEKMIRA will respond to OXFORD within seven (7) Business Days after receiving OXFORD's notice if that notice requests them to provide information to assist OXFORD to determine whether or not an exemption in the FOI Legislation applies to the information requested under the FOI Legislation.

8.1.5 The Receiving Party may disclose the Disclosing Party's Confidential Information to the extent such Confidential Information is specifically required to be disclosed to the Ethics Committee or the Regulatory Authority. The Parties acknowledge that there is a general understanding that any such Ethics Committee and Regulatory Authority will keep information submitted to it confidential, and the Receiving Party shall mark any of the Disclosing Party's Confidential Information disclosed in accordance with this Section 8.1.5 as "confidential", but each Party accepts that the Receiving Party would be unable to impose any specific obligations upon such bodies.

8.1.6 The Parties acknowledge and agree that the Protocol shall not be regarded as Confidential Information under this Agreement.

8.2 Publication

Subject to the provisions of Section 8.2.3, the Parties agree as follows:

8.2.1 TEKMIRA shall not prevent or hinder any registered student of OXFORD from submitting for a degree of OXFORD a thesis based on the Results, the examination of such a thesis by examiners appointed by OXFORD, or the deposit of such a thesis in accordance with the relevant procedures of OXFORD provided that TEKMIRA Confidential Information, TEKMIRA Arising IP and TEKMIRA IP receive the protections afforded under Article 7 (Intellectual Property) and Article 8 (Confidential Information);

8.2.2 in accordance with normal academic practice, all Personnel shall be permitted to publish the Results following the procedures laid down in Section 8.2.3;

8.2.3 subject to Section 8.2.7 below, where OXFORD, any registered student of OXFORD or any Personnel wishes, during the Term and for a period of three (3) years after, to submit for publication the Results, OXFORD will submit details of such Results to TEKMIRA in writing not less than ten (10) days in advance of the submission for publication. TEKMIRA may require OXFORD to (a) delay submission for publication if, in TEKMIRA's reasonable opinion, such delay is necessary in order to seek patent or similar protection for the TEKMIRA Arising IP subsisting in such Results and/or (b) to redact any TEKMIRA Confidential Information or TEKMIRA IP. A delay imposed on submission for publication as a result of a requirement made by TEKMIRA shall not last longer than is absolutely necessary to seek the required protection, and therefore shall not exceed one (1) month from the date of receipt of OXFORD's notice to publish, although OXFORD will not unreasonably refuse a request from TEKMIRA for additional delay in the event that the property rights of TEKMIRA would otherwise be lost. Notification of the requirement for delay in submission for publication must be received by OXFORD within thirty (30) days after the receipt of the notice to publish by TEKMIRA, failing which OXFORD, its registered students and its Personnel shall be free to assume that TEKMIRA has no objection to the proposed publication. OXFORD shall provide TEKMIRA a final copy of any pre-publication material to confirm the redaction of TEKMIRA Confidential Information or TEKMIRA IP required by TEKMIRA;

8.2.4 OXFORD shall register the Clinical Trial on a free-to-user, open access clinical trial databases (e.g. http://www.clinicaltrials.gov.uk) prior to the enrolment of the first Trial Subject. OXFORD shall use its reasonable endeavours to maintain and update the information on such database, as required, during the course of the Clinical Trial;

8.2.5 the Parties shall comply with recognized standards concerning publication and authorship, including the *Uniform Requirements for Manuscripts Submitted to Biomedical Journals* issued by the International Committee of Medical Journal Editors;

8.2.6 in accordance with the Funding terms and conditions, the Parties agree that all publications made of the Results of the Clinical Trial shall include the statement that "This work was supported by the Wellcome Trust and Tekmira Pharmaceuticals Corporation"; and

8.2.7 OXFORD and TEKMIRA acknowledge and agree that it is necessary for Results and data arising from the Clinical Trial to be made publicly available as soon as reasonably possible in recognition of the international public interest, and immediately provided to the relevant authorities and organizations involved in the implementation of responses to the current outbreak of Ebola Virus Disease, for the purposes of facilitating and informing such responses. OXFORD shall make relevant Results arising from the Clinical Trial (excluding Confidential Information provided by TEKMIRA, unless with TEKMIRA's express advance consent) available to other research institutions and researchers engaging in research into Ebola Virus Disease as soon as reasonably possible (ideally on a "real time basis"), but always in accordance with the Applicable Requirements. OXFORD and TEKMIRA shall discuss such disclosures in advance and OXFORD shall take TEKMIRA's reasonable comments into consideration prior to making any such disclosure.

8.3 No License

Except as expressly set forth in this Agreement neither Party will obtain any interest in the other Party's Confidential Information or Intellectual Property. OXFORD acknowledges and agrees that it does not acquire a license or any other right and that it shall notify each Consortium Collaborator in writing that they shall not acquire a license or any other right, to TEKMIRA Confidential Information except for the limited purpose of carrying out its rights and obligations under this Agreement and that such limited, non-exclusive, license will expire upon the completion of the Clinical Trial.

8.4 Return of Confidential Information

8.4.1 Within thirty (30) days following the completion of the Clinical Trial, OXFORD and each Consortium Collaborator will return to TEKMIRA or destroy and certify destruction in writing, at TEKMIRA's sole discretion, all Confidential Information of TEKMIRA, including, to the extent practicable, all such information that is electronically stored by OXFORD or any Consortium Collaborator, all reproductions thereof.

8.4.2 To the extent it is required to do so under applicable laws or in order to ensure compliance with this Agreement, OXFORD and each Representative involved in the conduct of the Clinical Trial may retain one copy of TEKMIRA Confidential Information, provided that such copy is used or accessed solely for the purposes of determining OXFORD and such Representative's compliance with applicable laws and with this Agreement

Article 9 Representations, Warranties and Covenants

9.1 Mutual Representations and Warranties

Each Party represents and warrants that

9.1.1 it has the full power and right to enter into this Agreement and that there are no outstanding agreements, assignments, licenses, encumbrances or rights held by other parties, private or public, inconsistent with the provisions of this Agreement;

9.1.2 the Person executing this Agreement on its behalf has the full power and authority to enter into this Agreement on its behalf; and

9.1.3 it shall comply with all applicable laws in the performance of this Agreement.

9.2 Individual Representations and Warranties

9.2.1 TEKMIRA represents, warrants, and covenants to OXFORD that all Services shall be performed in compliance with cGMP requirements.

9.2.2 OXFORD represents, warrants, and covenants to TEKMIRA that OXFORD shall (a) comply with GCP and all local laws and regulations governing the conduct of the Clinical Trial, and (b) notify each Consortium Collaborator that each of them has the obligation to comply with GCP and all local laws and regulations governing the conduct of the Clinical Trial.

9.3 Disclaimers

9.3.1 OXFORD makes no representation or warranty that advice or information given by the Chief Investigator or any other Personnel, or the content or use of any Results provided in connection with the Clinical Trial, will not constitute or result in infringement of third-party rights.

9.3.2 OXFORD accepts no responsibility for any use which may be made of any work carried out under or pursuant to this Agreement, or of the Results, nor for any reliance which may be placed on such work or Results, nor for advice or information given in connection with them.

9.3.3 TEKMIRA makes no representations or warranties, express or implied, either in fact or by operation of law, by statute or otherwise, and specifically disclaims any and all implied or statutory warranties, including without limitation, any warranty of merchantability or fitness for a particular purpose, efficacy of the Investigational Medicinal Product or Infusion Kits, or warranty of non-infringement.

9.4 No Implied Warranties

EXCEPT AS EXPRESSLY PROVIDED IN THIS ARTICLE 8, NEITHER PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND EACH PARTY SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED OR STATUTORY WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EFFICACY OF THE DRUG KIT, OR WARRANTY OF NON-INFRINGEMENT.

Article 10 LIABILITY

10.1 OXFORD

OXFORD shall, subject to Section 10.2, indemnify TEKMIRA and its Representatives (each, a "**TEKMIRA Indemnitee**") against any and all claims, actions or demands, damages, costs and expenses (including any settlements or ex gratia payments made with the consent of OXFORD and any court costs and reasonable legal fees) incurred by TEKMIRA in connection with any claim made or brought (whether successfully or otherwise) by a Trial Subject (or their dependents) that result from any personal injury (including death) to a Trial Subject arising out of or related to the administration of the Investigational Medicinal Product or any clinical intervention or procedure provided for or required by the Protocol to which the Trial Subject would not otherwise have been exposed but for their participation in the Clinical Trial, except to the extent the same is caused by the negligent or wrongful acts or omissions or breach of statutory duty of any TEKMIRA Indemnitee or a breach of their obligations under this Agreement.

10.2 TEKMIRA

TEKMIRA shall, subject to Section 10.1, indemnify OXFORD and its Representatives (each, an "**OXFORD Indemnitee**")against any and all claims, actions or demands, damages, costs and expenses (including any settlements or ex gratia payments made with the consent of TEKMIRA and any court costs and reasonable legal fees) incurred by OXFORD, the Trial Sites and the Representatives in connection with any claim made or brought (whether successfully or otherwise) by a Trial Subject (or their dependents) that result from the Investigational Medicinal Product supplied by TEKMIRA and its failure to comply with any requirement of this Agreement, GMP and/or applicable law, except to the extent that the same is caused by the negligence, wrongful acts or omissions or breach of statutory duty of any OXFORD Indemnitee.

10.3 Conditions

10.3.1 The indemnities set out in Section 10.1 and Section 10.2 shall not apply to any such claim or proceedings:

(a) unless as soon as reasonably practicable following receipt of notice of such claim or proceedings, the Indemnified Person shall have notified the indemnifying Party in writing of it and shall, upon the indemnifying Party's request and at that indemnifying Party's cost, have permitted the indemnifying Party to have full care and control of the claim or proceedings using legal representation of its own choosing; or

(b) if the Indemnified Person shall have made any admission in respect of such claim or proceedings or taken any action relating to such claim or proceedings prejudicial to the defence of it without the written consent of the indemnifying Party (such consent not to be unreasonably withheld or delayed), provided that no Indemnified Person shall be deemed to be in breach of this condition by any statement properly made by the Indemnified Person in connection with the operation of the Indemnified Person's internal complaint procedures, accident reporting procedures, or disciplinary procedures, or where such a statement is required by law.

10.3.2 The indemnifying Party shall, in relation to any claim or proceedings it has assumed care and control of under Section 10.3.1(a):

(a) keep the Indemnified Pperson fully informed of the progress of any claim or proceedings;

(b) consult fully with the Indemnified Person on the nature of any defence to be advanced; and

(c) not, without the prior written consent of the Indemnified Person (such consent not to be unreasonably withheld or delayed), enter into any settlement or compromise of such claim or proceedings which: (a) would result in injunctive or other relief being imposed against an Indemnified Person; or (b) does not include as an unconditional term the giving by the claimant to all applicable Indemnified Persons of a release from liability in relation to such claim or proceedings.

10.3.3 Each Party shall use its reasonable endeavours to inform the other Party promptly of any circumstances that are likely to give rise to a claim or proceedings in respect of which it may be entitled to indemnification under Section 10.1 or Section 10.2; and shall keep the other Party reasonably informed of developments in relation to any such claim or proceedings, even where the Party does not intend to make a claim under Section 10.1 or Section 10.2.

10.3.4 Each Party shall give to the indemnifying Party such assistance as it may reasonably require for the conduct and prompt handling of any such claim or proceedings.

10.3.5 Nothing in Section 10.1 or Section 10.2 shall restrict or limit an Indemnified Person's general obligation at law to mitigate a loss it may suffer or incur as a result of an event that gives rise to a claim under Section 10.1 or Section 10.2.

10.4 LIMITATION OF LIABILITY

10.4.1 OTHER THAN AS EXPRESSLY SET OUT IN THIS AGREEMENT, AND SUBJECT TO SECTIONS 10.4.3 AND 10.4.4, NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY INDIRECT LOSS OR FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES SUFFERED BY THE OTHER PARTY, WHETHER SUCH LOSS ARISES FROM BREACH OF A DUTY IN CONTRACT, TORT, UNDER STATUTE OR IN ANY OTHER WAY INCLUDING, WITHOUT LIMITATION, LOSS ARISING FROM NEGLIGENCE, DEFAULT, BREACH OF DUTY, PRODUCT LIABILITY, STRICT LIABILITY, NON-DELIVERY, DELAY IN DELIVERY OR DEFECTS OR ERRORS IN THE WORK UNDERTAKEN PURSUANT TO THE TERMS OF THIS AGREEMENT, OR IN CONNECTION WITH ANY OTHER CLAIM REGARDLESS OF WHETHER ANY OTHER REMEDY PROVIDED HEREIN FALLS.

10.4.2 Each Party undertakes to make no claim in connection with this agreement or its subject matter against the other's employees (apart from claims based on fraud or deliberate default). This undertaking is intended to give protection to individuals: it does not prejudice any right which either Party might have to claim against the other. The benefit conferred by this provision is intended to be enforceable by the persons referred to in it.

10.4.3 The maximum liability (other than as regards obligations to make payments under Article 4) of each Party to the other Party under or otherwise in connection with this Agreement or its subject matter shall not exceed £2,500,000 together with interest on the balance of such moneys from time to time outstanding, accruing from day to day at the Barclays Bank plc Base Rate from time to time in force and compounded annually as at 31 December. For the avoidance of doubt the indemnities set out in Section 10.1 shall be subject to the cap set out in this Section 10.4.3 of this Agreement.

10.4.4 Nothing in this Agreement limits or excludes a Party's liability for: (a) death or personal injury resulting from its negligence; (b) any fraud or fraudulent misrepresentation; or (c) any sort of other liability which, by law, cannot be limited or excluded.

Article 11 Term and Termination

11.1 Term

This Agreement will commence as of the Effective Date and shall continue in force until the earlier of (a) termination by either Party as provided herein or (b) completion of the Clinical Trial (the "**Term**").

11.2 Cancellation or Termination by OXFORD

11.2.1 OXFORD acknowledges that TEKMIRA must commit considerable resources in advance of Manufacturing the Investigational Medicinal Product and supplying the Infusion Kits by purchasing raw materials and components, and allocating lab space, time, equipment and human resources. Accordingly, if OXFORD cancels delivery of Investigational Medicinal Product and/or Infusion Kits, or terminates this Agreement for reasons other than TEKMIRA's material breach of this Agreement, TEKMIRA shall have the right to retain all Investigational Medicinal Product and Infusion Kits under production and not yet shipped. For clarity, this right of TEKMIRA to retain or to have Investigational Medicinal Product returned for its exclusive use, is in addition to and not in substitution of TEKMIRA's right to retain the Deposit, and any such use by TEKMIRA shall be subject to prior discussion with OXFORD and the Wellcome Trust (with Wellcome Trust approval being necessary prior to TEKMIRA's use of the returned or retained Investigational Medicinal Product).

11.2.2 OXFORD shall have the right to reject any shipment of the Investigational Medicinal Product or Infusion Kits that does not conform with the requirements of this Agreement in all material respects. OXFORD shall not be required to pay any invoice with respect to any shipment of the Investigational Medicinal Product or the Infusion Kits properly rejected pursuant to this Section 11.2.2. At OXFORD's option, OXFORD shall be entitled either:

(a) to a refund of all Service Fees paid by the University with respect to such rejected shipment (including the Deposit); or

(b) to require TEKMIRA to replace such rejected shipment at no additional cost to OXFORD.

11.2.3 In the event that OXFORD selects the option under Section 11.2.2(b) with respect to any shipment of the Investigational Medicinal Product or the Infusion Kits:

(a) TEKMIRA shall replace the rejected shipment as soon as reasonably practicable after the rejection; and

(b) TEKMIRA shall provide OXFORD with updated delivery information (including estimated delivery dates of replacement product) upon it becoming available.

11.3 Termination for Cause

11.3.1 Either Party may terminate this Agreement:

(a) for the other Party's material or persistent breach of this Agreement. Prior to any such termination the Party seeking to terminate shall give the other Party thirty (30) days prior written notice of its intention to so terminate, which notice will set forth the default(s) which form the basis for such termination. If the defaulting Party fails to correct such default(s) within the thirty (30) day notice period, this Agreement shall automatically terminate;

(b) with immediate effect on giving written notice to the other Party, if the other Party becomes insolvent, or if an order is made or a resolution is passed for its winding up (except for the purpose of solvent amalgamation or reconstruction), or if an administrator, administrative receiver or receiver is appointed over the whole or any part of the other Party's assets, or if the other Party makes an arrangement with its creditors.

11.3.2 If the application of the Chief Investigator or, as the case may be, OXFORD in relation to the Ethics Committee Opinion and/or the Regulatory Authority is finally rejected, and there is no possibility of appeal against such rejection, either Party may terminate this Agreement with immediate effect by giving written notice to the other Party.

11.3.3 If, at any time during the Term, the Ethics Committee Opinion and/or the Regulatory Approval is suspended, revoked or otherwise terminated, and there is no possibility of appeal against such suspension, revocation or termination, either Party may terminate this Agreement with immediate effect by giving written notice to the other Party.

11.3.4 This Agreement may be terminated by either Party with immediate effect by giving written notice to the other Party if it has reasonable and substantial grounds for believing the Clinical Trial should cease in the interests of the health and safety of the Trial Subjects or Representatives working in such Clinical Trial.

11.3.5 The provisions of this Section 11.3 are without prejudice to Section 5.1.3 or any other rights a Party may have to terminate this Agreement.

11.3.6 [***].

11.4 Other Remedies

Section 11.3 will not be exclusive and will not be in lieu of any other remedies available to a Party hereto for any default hereunder on the part of the other Party.

11.5 Continuing Obligations

Termination of this Agreement for any reason will not relieve the Parties of any obligation accruing prior thereto and any obligations hereunder and will be without prejudice to the rights and remedies of either Party with respect to any antecedent breach of the provisions of this Agreement.

11.6 Alternate Remedies

Nothing in this Agreement shall be deemed as preventing either Party from seeking specific performance, injunctive or other equitable relief or any other provisional remedy from any court having jurisdiction over the Parties and the subject matter of the Dispute as necessary to protect the name, Confidential Information or Intellectual Property belonging to either Party or their respective Representatives without proof of actual damages and without the posting of bond or security for costs.

Article 12 General Provisions

12.1 Publicity and Advertising

Neither Party will use the other Party's name or the name of any member of that Party's personnel in any advertising, packaging, promotional material, or any other publicity without the prior written approval of the other Party.

12.2 Amendment

This Agreement may be amended or modified only in writing signed by the Parties.

12.3 Assignment and Subcontracting

The rights and obligations covered hereunder are personal to each Party hereto and for this reason this Agreement will not be assignable by either Party in whole or in part, without the prior written consent of the other Party in each instance; provided, however, that the restriction contained herein will in no way limit the rights of TEKMIRA to assign or appoint as its agent for any purpose of this Agreement any Affiliates or assign such rights to any Person or entity that purchases or licenses all or substantially all of the assets of TEKMIRA or its Affiliate or acquires or is combined with TEKMIRA in a merger or some other form of business combination. This Agreement will be binding upon and will enure to the benefit of the Parties hereto and to any permitted assignee or successor of either Party. Subject to other provisions of this Section 12.3, if one Party validly assigns any or all of its obligations hereunder, such assigning Party agrees to remain bound by all of its responsibilities and obligations hereunder. Any and all assignments of this Agreement or any interest herein not made in accordance with this Section 12.3 will be void ab initio.

12.4 Counterparts

This Agreement may be executed in counterparts with the same effect as if both Parties had signed the same document. Both counterparts shall be construed together and shall constitute one and the same agreement. This Agreement may be executed by the Parties and transmitted by facsimile transmission or PDF copy, and if so executed and transmitted this Agreement shall be for all purposes as effective as if the Parties had delivered an executed original Agreement.

12.5 Entire Agreement and Exhibits

This Agreement constitutes the entire agreement of the Parties, superseding any and all previous agreements, whether oral or written, as to any purchase of Investigational Medicinal Products or Services. Each Exhibit is incorporated by reference and made a part of this Agreement.

12.6 Force Majeure

If either Party is prevented from complying, either totally or in part, with any of the terms or provisions set forth herein by reason by circumstances beyond its reasonable control ("force majeure"), including, by way of example and not of limitation, fire, flood, explosion, storm, riot, war, rebellion, accidents, acts of God, acts of governmental agencies or instrumentalities, inability to acquire sufficient raw materials, failure of suppliers or any other cause or externally induced casualty beyond its reasonable control, whether similar to the foregoing contingencies or not, said Party will provide written notice of same to the other Party. Said notice will be provided within seven (7) days of the occurrence of such event and will identify the requirements of this Agreement or such of its obligations as may be affected, and to the extent so affected, said obligations will be suspended during the period of such disability. The Party prevented from performing hereunder will use commercially reasonable efforts to remove such disability and will continue performance of the affected obligations whenever such causes are removed provided that the Party will throughout the period of disability continue performance of the non-affected obligations. The Party so affected will give to the other Party a good faith estimate of the continuing effect of the force majeure condition and the duration of the affected Party's non-performance. If the period of delay or non-performance continues for thirty (30) days, the Party not affected may terminate this Agreement by giving fourteen (14) days' written notice to the affected Party.

12.7 Further Acts

Both Parties hereby undertake to do such further acts and take such steps as may be reasonably required to implement the intent of this Agreement.

12.8 Governing Law

This Agreement will be governed and construed in accordance with the laws of England and Wales, excluding any choice of law rules that may direct the application of the law of another jurisdiction.

12.9 Sale of Goods

The application of the 1980 United Nations Convention on Contracts for the International Sale of Goods is expressly excluded with respect to this Agreement.

12.10 Notice

Notices provided under this Agreement to be given or served by either Party on the other will be given in writing and served personally, by prepaid registered mail, return receipt requested, by a reputable courier company or by means of facsimile to the following respective addresses or to such other addresses as the Parties may hereafter advise each other in writing. Each such notice shall be deemed delivered (i) on the date delivered if by personal delivery, (ii) on the date telecommunicated if by facsimile, and (iii) on the date upon which the return receipt is signed or delivery is refused, as the case may be, if mailed.

To OXFORD:

University of Oxford NDM Research Building Old Road Campus, Roosevelt Dr. Oxford, 0X3 7FZ United Kingdom	Tel: +44 (0) 1865 572201 Fax: +44 (0) 1865 572215 Attention: Principal Investigator and Department Administrator

And

University of Oxford Legal Services Office Wellington Square, Oxford OX1 2JD United Kingdom	Tel: 01865 270138 Fax: 01865 280569 Attention: Director of Research Services

To TEKMIRA:

Tekmira Pharmaceuticals Corporation 100-8900 Glenlyon Parkway Burnaby, B.C. V5J 5J8 Canada	Tel: +1 (604) 419-3205 Fax: +1 (604) 419-3201 Attention: Sr. VP Business Development

12.11 Severability

If any provision of this Agreement is held to be illegal, invalid or unenforceable under present or future laws effective while this Agreement remains in effect, the legality, validity and enforceability of the remaining provisions will not be affected thereby.

12.12 Waiver

No delay or waiver on the part of TEKMIRA or OXFORD in exercising any right, power or privilege hereunder will operate as a waiver of either TEKMIRA or OXFORD of any right, power or privilege hereunder nor will any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege hereunder.

12.13 Survivorship

Expiration or termination of this Agreement for any reason will not relieve either party of any obligation accruing prior to such expiration or termination or of any rights and obligations of the parties that by their terms survive termination or expiration of this Agreement, including the provisions of Article 1, Sections 3.1, 3.4.2, 4.1.2, 4.1.6, 5.4, 5.5, Sections 6.6, 6.7, 6.8, Article 7 , Article 8, Sections 9.3 and 9.4, Article 10, Article 11, and Article 12 of this Agreement.

IN WITNESS WHEREOF, duly authorized Representatives of the Parties have executed this Agreement on the date first above written.

The Chancellor Masters and Scholars of the University of Oxford

By:_____
(signature)

Name:_____
(print name)

Title:_____

By:_____
(signature)

By:_____
(print name)

Title:_____

Acknowledged by Chief Investigator

By:_____
(signature)

Name:_____
(print name)

Tekmira Pharmaceuticals Corporation
(on behalf of itself and its Affiliate, Protiva Biotherapeutics, Inc.)

By:_____
(signature)

Name:_____
(print name)

Title:_____

By:_____
(signature)

Name:_____
(print name)

Title:_____

EXHIBIT 1.1.34 CONTENT OF INFUSION KIT

One Infusion Kit, intended for single use only, is required for each administration of TKM-Ebola, and contains filters, needles, syringes, IV bags, and shipping bins.

EXHIBIT 1.1.38INVESTIGATIONAL MEDICINAL PRODUCT DESCRIPTION

TKM-130803 Product Description

[***]

EXHIBIT 3.3.1 DELIVERY

- Shipment of Investigational Medicinal Product and Infusion Kits will be made in two (2) lots;

- Shipments will only be made following TEKMIRA's receipt of OXFORD's written shipping details as follows:
  (a) the relevant VAT number of the recipient for customs purposes;
  (b) full details of the shipment destination address; and
  (c) the personal name and mobile phone number of the individual authorized to receive such shipments;
  (together, the "**Shipping Details**").

- Subject to TEKMIRA having received OXFORD's Shipping Details on or before December 10, 2014, the first lot will be shipped on December 15, 2014 and the second lot will be shipped on January 3, 2015.

- If TEKMIRA receives OXFORD's Shipping Details after December 10, 2014, TEKMIRA will ship the first lot within ten (10) Business Days, and the second lot within fifteen (15) Business Days, following receipt of OXFORD's Shipping Details. Notwithstanding anything to the contrary in the foregoing, for security of shipment receipt and handling, no lots will be shipped between the dates of December 16, 2014 and January 2, 2015 inclusive.

- **TEKMIRA shall not be liable for any delays arising from national or international government, customs or courier interactions.**

EXHIBIT 5.3.1 STABILITY STUDY PARAMETERS

Three lots will be set aside for stability testing as follows:

- [***]
- [***]
- [***]

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

ST ANDARD FORM 30 (Rev. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

ST ANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA FAR (48 CFR) 53.243

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE V	PAGE OF PAGES 1 | 2
2. AMENDMENT/MODIFICATION NO. P00001	3. EFFECTIVE DATE 19-Jul-2010	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(if applicable)	
6. ISSUED BY CODE W9113M USASMDC/ARSTRAT SMDC-RDC-EB 64 THOMAS JOHNSON DRIVE FREDERICK MD 21702-4300		7. ADMINISTERED BY (If other than item 6) CODE SCN01A DCMA AMERICAS CANDA 275 BANK ST, SUITE 200 OTTAWA, ONARIO K2P 2L6		
8. NAME AND ADDRESS OF CONT RACT OR (No., Street, County, State and Zip Code) TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8				9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) X 10A. MOD. OF CONT RACT/ORDER NO. W9113M-10-C-0057 10B. DATED (SEE ITEM 13)
CODE L8144	FACILIT Y CODE			X 14-Jul-2010

11. THIS ITEM ONLY APPLIES TO AMENDMENT S OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer is extended, is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or
(c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNT ING AND APPROPRIAT ION DAT A (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICAT IONS OF CONT RACTS/ORDERS. IT MODIFIES THE CONT RACT /ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONT RACT ORDER NO. IN ITEM 10A.
X	B. THE ABOVE NUMBERED CONT RACT /ORDER IS MODIFIED TO REFLECT THE ADMINIST RAT IVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUT HORIT Y OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUT HORIT Y OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORT ANT: Contractor X is not, is required to sign this document and return copies to the issuing office.

14. DESCRIPT ION OF AMENDMENT /MODIFICAT ION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: oconnels102073

A. The purpose of this modification is the change the Administrative Contracting Officer assignment and payment office as shown in the attached summary of changes.

B. All other terms and conditions of this contract remain the same and in full force and effect.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONT RACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONT RACT OR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNIT ED ST AT ES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 19-Jul-2010

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION A - SOLICITATION/CONTRACT FORM

The 'administered by' organization has changed from DCM SEATTLES4801A CORPORATE CAMPUS EAST III
3009 112TH AVE., NE, SUITE 200
BELLEVUE WA 98004-8019
to
DCMA AMERICAS CANDA SCN01A 275 BANK ST, SUITE 200
OTTAWA, ONARIO K2P 2L6

The 'Payment will be made by' organization has changed from DFAS-COLUMBUS CENTER HQ0339
DFAS-CO/WEST ENTITLEMENT OPERATION
P.O. BOX 182381 COLUMBUS OH 43218-2381 to
DFAS-COLUMBUS CENTER HQ0337 NORTH ENTITLEMENT OPERATIONS PO BOX 182266
COLUMBUS OH 43218-2266

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 3

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00002	15-Apr-2011		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USASMDCIARSTRAT SMDC-RDC-EB 64 THOMAS JOHNSON DRIVE FREDERICK MD 21702-4300	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
X	D. OTHER (Specify type of modification and authority) 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Ntu11ber: oconnels 111023
See attached summary of changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 15-Apr-2011

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

Incremental Funding for CLIN 0001 is added as follows:

SUBCLIN 000102 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000102	Funding for CLIN 0001 FFP FYI 1 Incremental Funding FOB: Destination				
				NET AMT	$0.00
					$4,204,016.00

ACRN AB
CIN:OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $4,553,366.00 from $9,755,326.00 to $14,308,692.00.

SUBCLIN 000101:

AA: 970040026TM5YTMW61D255999BD33799000S49012 DODAAC: HDl 115 (CIN 000000000000000000000000000) was increased by $349,350.00 from $9,755,326.00 to $10,104,676.00

SUBCLIN 000102:

Funding on SUBCLIN 000102 is initiated as follows:

ACRN: AB

CIN:OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

Acctng Data: 9710400.26TM 5YTM W61D 255999 BD36966000 S49012 DODAAC: HDl 115

Increase: $4,204,016.00 Total: $4,204,016.00

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00003	06/13/2011	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USASMDC/ARSTRAT SMDC-RDC-EB 64 Thomas Johnson Drive Frederick MD 21702-4300	W9113M	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See SCHEDULE

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
See Attached summary of changes .

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Ian Mac Lachlan, Ph.D. Executive Vice President and Chief Scientific Officer	TEL: EMAIL:

15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)	June 16, 2011	BY (Signature of Contracting Officer)	

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

A. The purpose of this modification is to 1) replace Exhibits AOO 1 through A006 in Section J with the attachments to this modification at no additional l cost to the Government and 2) obligate additional incremental FYI 1 funding as shown below .

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $3,000,000.00 from $14,308,692.00 to $17,308,692 .00.

SUBCLIN 000102:

AB: 9710400 .26TM 5YTM W61D 255999 BD36966000 S49012 DODAAC: HDl 115 (CIN 00000000000000000000000000000) was increased by $3,000,000.00 from $4,204,016 .00 to $7,204,016.00

B. All other terms and conditions of this contract remain the same and in full force and effect.

(End of Summary of Changes)

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00004	10/03/2011	see schedule	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
NATICK CONTRACTING DIVISION 64 Thomas Johnson Drive Frederick MD 21702-4300	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8	X	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
CODE 49WU1 FACILITY CODE	X	10B. DATED (SEE ITEM 13) Jul 14, 2010

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See SCHEDULE

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

See Attached Summary of Changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED Oct 4 2011	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 5 Oct 11

NSN 7540-01- 152-8070
PREVIOUS EDITION
UNUSABLE

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

A. Pursuant to mutual agreement between both parties, the following changes are made to CLIN 0001 to add an additional study (Cytotoxicity in Vitro Study) to satisfy FDA questions regarding Tekmira's therapeutic candidate. Additionally, the issued by organization of this contract has changed as shown below. This modificatio11 incorporates, by reference, the Contractors change proposal dated 6 Sep 2011 thereby effecting these changes.

1. SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by $40,418.57 from $34,747,879.00 to $34,788,297.57.

2. The 'issued by' organization has changed from
USASMDC/ARSTRAT
SMDC-RDC-EB
64 THOMAS JOHNSON DRIVE
FREDERICK MD 21702-4300

to

NATICK CONTRACTING DIVISION
64 THOMAS JOHNSON DR
FREDERICK MD 21702-4300

3. SECTION B - SUPPLIES OR SERVICES AND PRICES

The following changes are made to CLIN 0001

CLIN 0001
The target cost has increased by $[***]from $[***] to $[***] . The target profit/fee has increased by $[***] from $[***] to $[***].
The minimum profit fee has increased by $[***] from $[***] to $[***]. The maximum profit fee has increased by $[***] from $[***] to $[***].
The total cost of this line item has increased by $40,418.57 from $34,747,879.00 to $34,788,297.57

4. The following is added to page 7 of the Contractor's SOW, dated 22 Mar 2010, Section J.

Attachment 1:

4.2.3.4 Other Studies
4.2.3.4.1. Conduct cytotoxicity in vitro study and complete draft report.

B.
The parties hereto specifically agree that the changes effected by this modification constitute both the consideration and the equitable adjustment due under any clause of this contract resulting from 11- incorporation of the proposal.

C. All other terms and conditions of this contract remain the same and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00005	02-Dec-2011		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
NATICK CONTRACTING DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel12495
See attached summary of changes for the addition of incremental funding .

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 02-Dec-2011

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

SUBCLIN 000103 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000103					$0.00

Funding for CUN 0001

COST

FYI 1 Incremental Funding

FOB: Destination

ESTIMATED COST $0.00
$3,950,000 .00

ACRN AC
CIN:OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

SECTION G – CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office
As a result of this modification , the total funded amount for this document was increased by $3,950,000.00 from $17,308,692.00 to $21,258,692 .00.

SUBCLIN 000103:
Funding on SUBCLIN 000103 is initiated as follows:

ACRN: AC

CIN:OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

Acctng Data: 9710400260115Y5YTT40603884BP0255Y8 1YT44W81XAG2332N001YT448 l044008

Increase : $3,950,000.00 Total: $3,950,000.00

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00006	25-Jan-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
NATICK CONTRACT ING DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

X	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. FAR 52.243-2 Alt V, Changes--cost Reimbursement
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel12905
See attached.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 25-Jan-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

A. This change order is hereby issued to move tasks associate with Aerosol Challenge from CLIN 0001 to CLIN 0002. The contractor is required to submit to the Contracting Officer, not later than 24 February 2012:

1. A proposed revised Statement of Work (if required).
2. A proposed revised C\VBS which will include a detailed list of the affected C\VBS numbers and the cost and fee that are associated with these changes.
3. A proposed revised Il\1S.

B. After receipt of the change proposal, a modification will be issued to effect agreed upon changes to CLINS 0001 and 0002.

C. All other terms and conditions of this contract remain the same and in full force and effect.

(End of Summary of Changes)

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 13
2. AMENDMENT/MODIFICATION NO P00007	3. EFFECTIVE DATE 05-Mar-2012	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY CODE W911QY W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011		7. ADMINISTERED BY (If other than item 6) CODE SCN01A DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6		

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) [***], FAR 45.107(a)

E. IMPORTANT: Contractor x is not, o is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel121274
See Attached Summary of Changes

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 05-Mar-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0005 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000201			Job		$0.00
	Funding for CLIN 0001 FFP FY12 Incremental funding FOB: Destination				
			NET AMT		$0.00
	ACRN AD CIN:OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO				$2,920,010.00

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for CUN 0005: INSPECT ATINSPECT BYACCEPT AT

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	*N/A*	*N/A*	Government

SECTION G - CONTRACT ADMINISTRATTON DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $2,920,0I 0.00 from $21,258,692.00 to $24,178,702.00.

CLIN 0005:
Funding on CLIN 0005 *is* initiated as follows:

ACRN: AD

CIN:OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

Acctng Data: 9720400260125Y5YTI40603884BP0255Y8l YT44W81 XAG2047N004YT4481044008

Increase: $2,920,010.00

Total: $2,920,010.00

SECTION I - CONTRACT CLAUSES

The following have been added by reference:

52.245-1	Government Property	AUG 2010

The following have been added by full text:

[***]

(a) Definitions. As used in this clause-

(1) Computer data base means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

(2) Computer program means a set of instructions, rules, or routines recorded in a form that is capable of causing R computer to perform a specific operation or series of operations.

(3) Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced , recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

(4) Computer software documentation means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

(5) Covered Government support contractor means a contractor under a contract, the primary purpose of which is to furnish independent and impartial advice or technical assistance directly to the Government in support of the Government's management and oversight of a program or effo1t (rather than to directly furnish an end item or service to accomplish a program or effort), provided that the contractor--

(i) Is not affiliated with the prime contractor or a first-tier subcontractor on the program or effort, or with any direct competitor of such prime contractor or any such first-tier subcontractor in furnishing end items or services of the type developed or produced on the program or effort); and

(ii) Receives access to technical data or computer software for performance of a Government contract that contains the clause at [***], Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends.

(6) Detailed manufacturing or process data means technical data that describe the steps, sequences, and conditions of manufacturing, processing or assembly used by the manufacturer to produce an item or component or to perform a proce

(7) Developed means that an item, component, or process exists and is workable. Thus, the item or component must have been constructed or the process practiced. Workability is generally established when the item, component, or process has been analyzed or tested sufficiently to demonstrate to reasonable people skilled in the applicable rut that

there is a high probability that it will operate as intended. Whether, how much, and what type of analysis or testing is required to establish workability depends on the nature of the item, component, or process, and the state of the art. To be considered "developed," the item, component, or process need not be at the stage where it could be offered for sale or sold on the commercial market, nor must the item, component, or process be actually reduced to practice within the meaning of Title 35 of the United States Code.

(8) Developed exclusively at private expense means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a government contract, or any combination thereof.

(i) Private expense determinations should be made at the lowest practicable level.

(ii) Under fixed-price contracts, when total costs are greater than the firm-fixed-
price or ceiling price of the contract, the additional development costs necessary to complete development shall not be considered when dete1mining whether development was at government, private, or mixed expense.

(9) Developed exclusively with government funds means development was not accomplished exclusively or partially at private expense.

(10) Developed with mixed funding means development was accomplished partially with costs charged to indirect cost pools and/or costs not allocated to a government contract, and partially with costs charged directly to a government contr

(l l) Form, fit, and function data means technical data that describes the required overall physical, functional, and performance characteristics (along with the qualification
requirements, if applicable) of an item, component, or process to the extent necessary to permit identification of physically and functionally interchangeable items.

(12) Government purpose means any activity in which the United States Government is a party, including cooperative agreements with international or multi-
national defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement,
but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorize others to do so.

(13) Government purpose rights means the rights to--

(i) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and

(ii) Release or disclose technical data outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform display, or disclose
that data for United States government purposes .

(14) Limited rights means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the technical data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by another party, except that the Government may reproduce, release, or disclose such data or authorize the use or reproduction of the data by persons outside the Government if--

(i) The reproduction, release, disclosure, or use is--

(A) Necessary for emergency repair and overhaul; or

(B) A release or disclosure to--

(1) A covered Government support contractor, for use, modification, reproduction , performance, display, or release or disclosure to authorized person(s) in performance of a Government contract; or

(2) A foreign government, of technical data other than detailed manufacturing or process data, when use of such data by the foreign government is in the interest of the Government and is required for evaluation or informational purposes;

(ii) The recipient of the technical data is subject to a prohibition on the further reproduction, release, disclosure, or use of the technical data; and

(iii) The contractor or subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

(15) Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation) . The term does not include computer software or data incide and/or management information.

(16) Unlimited rights means rights to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so,

(a) Rights in technical data. The Contractor grants or shall obtain for the Government the following royalty free, world-wide, nonexclusive, irrevocable license rights in technical data other than computer software documentation (see the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause of this contract for rights in computer software documentation):

(1) [***].

[***]

(i) Data pertaining to an item, component, or process which has been or will be developed exclusively with Government funds;

(ii) Studies, analyses, test data, or similar data produced for this contract, when the study, analysis, test, or similar work was specified as an element of performance;

(iii) Created exclusively with Government funds in the performance of a contract that does not require the development, manufacture, construction , or production of items, components, or processes;

(iv) Form, fit, and function data;

(v) Necessary for installation, operation, maintenance, for training purposes (other than detailed manufacturing or process data);

(vi) Corrections or changes to technical data furnished to the Contractor by the Government;

(vii) Otherwise publicly available or have been released or disclosed by the Contractor or subcontractor without restrictions on further use, release or djsclosu.re, other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the technical data to another party or the sale or transfer of some .or all of a business entity or its assets to another party;

(viii) Data in which the Government has obtained unlimited rights under another Government contract or as a result of negotiations; or

(ix) Data furnished to the Government , under this or any other Government contract or subcontract thereunder, with-

(A) Government purpose license rights or limited rights and the restrictive condition(s) has/have expired ; or

(B) Government purpose rights and the Contractor's exclusive right to use such data for commercial purposes has expired.

(2) [***].

(i) The Government shall have government purpose rights for a [***], or such other period as may be negotiated, in technical data--

(A) That pertain to items, components, or processes developed with mixed funding except when the Government is entitled to unlimited rights in such data as provided in paragraphs (b)(i i) and (b)(iv) through (b)(ix) of this clause; or
(B) Created with mixed funding in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The [***], or such other period as may have been negotiated, shall commence upon execution of the contract, subcontract, letter contract (or similar contractual instrument), contract modification, or option exercise that required development of the items, components, or processes or creation of the data described in paragraph (b)(2)(i)(B) of this clause. Upon expiration of the [***] or other negotiated period, the Government shall have unlimited rights in the technical data.

(iii) The Government shall not release or disclose technical data in which it has government purpose rights unless-

(A) Prior to release or disclosure, the intended recipient is subject to the non-disclosure agreement at [***] of the Defense federal Acquisition Regulation Supplement (DFARS); or

(B) The recipient is a Government contractor receiving access to the data for performance of a Government contract that contains the clause at [***].

(iv) The Contractor has the exclusive right, including the right to license others, to use technical data in which the Government has obtained government purpose rights under this contract for any commercial purpose during the time period specified in the government purpose rights legend prescribed in paragraph (f)(2) of this clause.

(3) [***].

(i) Except as provided in paragraphs (b)(I)(ii) and (b)(1)(iv) through (b)(t)(ix) of this clause, the Government shall have limited rights in technical data--

(A) Pertaining to items, components, or processes developed exclusively at private expense and marked with the limited rights legend prescribed in paragraph (t) of this clause; or

(B) Created exclusively at private expense in the perfom1ance of a contract that does not require the development, manufacture , construction, or production of items, components, or processes.

(ii) The Government shall require a recipient of limited rights data for emergency repair or overhaul to destroy the data and all copies in its possession promptly following completion of the emergency repair/overhaul and to notify the Contractor that the data have been destroyed.

(iii) i) The Contractor, its subcontractors, and suppliers are not required to provide the Government additional rights to use, modify, reproduce, release, perform, display, or disclose technical data furnished to the Government with limited rights. However, if the Government desires to obtain additional rights in technical data in which it has limited rights, the Contractor agrees to promptly enter into negotiations with the Contracting Officer to determine whether there are acceptable terms for transferring such rights. All technical data in which the Contractor has

granted the Government additional rights shall be listed or described in a license agreement made part of the contract. The license shall enumerate the additional rights granted the Government in such data.

(i) The Contractor acknowledges that--

(A) Limited rights data is authorized to be released or disclosed to covered Government suppo1t contractors;

(B) The Contractor will be notified of such release or disclosure;

(C) The Contractor (or the party asserting restrictions as identified in the limited rights legend) may require each such covered Government support contractor to enter into a non-disclosure agreement directly with the Contractor (or the party asserting restrictions) regarding the covered Government support contractor's use of such data,
or alternatively, that the Contractor (or party asse1tingrestrictions) may waive in writing the requirement for a non disclosure agreement;

(D) Any such non-disclosure agreement shall address the restrictions *on* the covered Government support contractor's use of the limited rights data as set forth in the clause at [***], and shall not include any additional terms and conditions unless mutually agreed to by the parties to the non-disclosure agreement; and

(E) The Contractor shall provide a copy of any such non-disclosure agreement or waiver to the Contracting Officer, upon request.

(4) Specifically negotiated license tights.

The standard license rights granted to the Government under paragraphs (b)(1) through (b)(3) of this clause, including the period during which the Government shall have government purpose tights in technical data, may be modified by mutual agreement to provide such rights as the parties consider appropriate but shall not provide the Government lesser rights than are enumerated in paragraph (a)(13) of this clause. Any rights so negotiated shall be identified in a license agreement made part of this contract.

(5) Prior government rights.

Technical data that will be delivered, furnished, or otherwise provided to the Government under this contract, in which the Government has previously obtained rights shall be delivered, furnished , or provided with the pre-existing lights, unless--

(i) The parties have agreed otherwise; or

(ii) Any restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose the data have expired or no longer apply.

(6) Release from liability.

The Contractor agrees *to* release the Government from liability for any release or disclosure of technical data made in accordance with paragraph (a)(13) or (b)(2)(iii) of this clause, in accordance with the terms of a license negotiated w1der paragraph (b)(4) of this clause, or by others to whom the recipient has released or disclosed the data and to seek relief solely fro1n the parry who has improperly used, modified, reproduced, released, performed , displayed, or disclosed Contractor data marked with restrictive legends.

(a) Contractor rights in technical data. All rights not granted to the Government are retained by the Contractor.

(b) Third party copyrighted data. The Contractor shall not, without the written approval of the Contracting Officer, il1corporate any copyrighted data in the technical data to be delivered under this contract un less the Contractor is the copyright owner or has obtained for the Government the license rights necessary to perfect a license or lice11ses in

the deliverable data of the appropriate scope set forth in paragraph (b) of this clause, and has affixed a statement of the license or licenses obtained on behalf of the Government and other persons to the data transmittal document.

(a) Identification and delivery of data to be furnished with restrictions on use, release, or disclosure. (1) This paragraph does not apply to restrictions based solely on copyright.

(2) Except as provided in paragraph (e)(3) of this clause, technical data that the Contractor asserts should be furnished to the Government with restrictions on use, release, or disclosure are identified in an attachment to this contract (the Attachment). The Contractor shall not deliver any data with restrictive markings unless the data are listed on the Attachment.

(3) In addition to the assertions made in the Attachment, other assertions may be identified after award when based on new information or inadvertent omissions unless the inadvertent omissions would have materially affected the source selection decision . Such identification and assertion shall be submitted to the Contracting Officer as soon as practicable prior to the scheduled date for delivery of the data, in the followh1g format, and signed by an official authorized to contractually obligate the Contractor: Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical: Data.

The Contractor asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data should be restricted--

Technical data to be Furnished With Restrictions \ I/ (LIST)	Basis for Assertion *21* (UST)	Asserted Rights Category \3/ (LIST)	Name of Person Asserting Restrictions \4/ (UST)

\ 1/Tf the assertion is applicable to items, components or processes developed at private expense, identify both the data and each such items, component, or process.

*'121*Generally, the development of an item, component, or process at private expense, either exclusively or partially, is the only basis for asserting restrictions on the Government's rights to use, release, or disclose technical data pertaining to such items, components, or processes. Indicate whether development was exclusively or partially at private expense. If development was not at private expense, enter the specific reason for asserting that the Government's rights should be restricted.

\3/ Enter asserted rights category (e.g., government purpose license rights
from a prior contract, rights rn Sl3IR data generated under another contract, limited ot government purpose rights under this or a prior contract, or specifically negotiated licenses).

\4/ Corporation, individual , or other person, as appropriate.

Printed Name and Title _____

Signature _____

(End of identification and assertion)

(2) When requested by the Contracting Officer, the Contractor shall provide sufficient information to enable the Contracting Officer to evaluate the Contractor's assertions. The Contracting Officer reserves *the* right to add the

Contractor's assertions to the Attachment and validate any listed assertion, at a later date, in accordance with the procedures of the Validation of Restrictive Markings on Technical Data clause of this contract.

(a) Marking requirements. The Contractor, and its subcontractors or suppliers, may on ly assert restrictions on the Government's rights to use, modify, reproduce, release , perform, display, or disclose technical data to be delivered under this contract by marking the deliverable data subject to restriction. Except as provided in paragraph (t)(5) of this clause, only the following legends are authorized under this contract: the government purpose rights legend at paragraph (f)(2) of this clause; the limited rights legend at paragraph (f)(3) of this clause; or the special license rights legend at paragraph (f)(4) of this clause; and/or a notice of copyright as prescribed under 17 U.S.C. 40 I or 402.

(J) General marking instructions. The Contractor or its subcontractors or suppliers, shall conspicuously and legibly mark the appropriate legend on all technical data that qualify for such markings. The authorized legends shall be placed on the transmittal document or storage container and, for printed material, each page of the printed material containing technical data for which restrictions are asserted. When only portions of a page of printed material are subject to the asserted restrictions, such portions shall be identified by circling, underscoring, with a note, or other appropriate identifier. Technical data transmitted directly from one computer or computer terminal to another shall contain a notice of asserted restrictions. Reproductions of technical data or any po1tions thereof subject to asserted restrictions shall also reproduce the asserted restrictions.

(2) Government purpose rights markings. Data delivered or otherwise furnished to the Government purpose rights shall be marked as follows:

Government Purpose Rights

Contract No. _____
Contractor Name _____
Contractor Address _____

Expiration Date _____

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(2) of the Rights in Technical Data--Noncommercial Items clause contained in the above identified contract. No restrictions apply after the expiration date shown above. Any reproduction of technical data or positions thereof marked with this legend must also reproduce the markings.

(End of legend)

(2) Limited rights markings. Data delivered or otherwise furnished to the Government with limited rights shall be marked with the following legend:

Limited Rights

Contract No. _____
Contractor Name _____
Contractor Address _____

The Government's rights to use, modify, reproduce, release, perfon11, display, or disclose these technical data are restricted by paragraph (b)(3) of the Rights in Technical Data--Noncommercial Items clause contained in the above identified contract. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings. Any person, other t than the Government, who has been provided access to such data must promptly notify the above named Contractor.

(End of legend)

(2) Special license rights markings. (i) Data in which the Government's rights stem from a specifically negotiated License shall be marked with the following legend:

Special License Rights

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these data are restricted by Contract No. (insert contract number) License No. (Insert license identifier) __. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(ii) For purposes of this clause, special licenses do not include government purpose license rights acquired under a prior contract (see paragraph (b)(S) of this clause).

(5) Pre-existing data markings. If the terms of a prior contract or license permitted the Contractor to restrict the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data deliverable under this contract, and those restrictions are still applicable, the Contractor may mark such data with the appropriate restrictive legend for which the data qualified under the prior contract or license. The marking procedures in paragraph (t)(I) of this clause shall be followed.

(g) Contractor procedures and records. Throughout performance of this contract, the Contractor and its subcontractors or suppliers that will deliver technical data with other than unlimited rights, shall--

(1) Have, maintain, and follow written procedures sufficient to assure that restrictive markings are used only when authorized by the terms of this clause; and

(2) Maintain records sufficient to justify the valid ity of any restrictive markings on technical data delivered under this contract.

(h) Removal of unjustified and nonconforming markings. (1) Unjustified technical data markings. The rights and obligations of the parties regarding the validation of restrictive markings on technical data furnished or to be furnished under this contract are contained in the Validation of Restrictive Markings on Technical Data clause of this contract. Notwithstanding any provision of this contract concerning inspection and acceptance, the Government may ignore or, at the Contractor's expense, correct or strike a marking if, in accordance with the procedures in the Validation of Restrictive Markings on Technical Data clause of this contract, a restrictive marking is determined to be unjustified.

(2) Nonconforming technical data markings. A nonconfo1ming marking is a marking placed on technical data delivered or otherwise furnished to the Gove111ment under this contract that is not in the f01mat authorized by this contract. Correction of nonconforming markings is not subject to the validation of Restrictive Markings on Technical Data clause of this contract. If the Contracting Officer notifies the Contractor of a nonconforming marking and the Contractor fails to remove or correct such marking within sixty (60) days, the Government may ignore or, at the Contractor's expense, remove or correct any nonconforming marking.

(i) Relation to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.

U) Limitation on charges for rights in technical data.(1) The Contractor sha.11 not charge to this contract any cost, including, but not limited to, license fees, royalties, or similar charges, for rights in technical data to be delivered under this contract when--

(i) The Government has acquired, by any means, the same or greater rights in the data; or

(ii) The data are available to the public without restrictions.

(2) The limitation in paragraph Q)(l) of this clause--

(i) Includes costs charged by a subcontractor or supplier, at any tier, or costs incu1Ted by the Contractor to acquire rights in subcontractor or supplier technical data, if the subcontractor or supplier has been paid for such rights under any other Government contract or under a license conveying the rights to the Government; and

(ii) Does not include the reasonable costs of reproducing, handling, or mailing the documents or other media in which the technical data will be delivered.

(k) Applicability to subcontractors or suppliers. (I) The Contractor shall ensure that the rights afforded its subcontractors and suppliers under I 0 U .S.C. 2320, l 0 U.S.C. 2321, and the identification, assertion, and delivery processes of paragraph (e) of this clause are recognized and protected.

(2) W11cnever any technical data for noncommercial items, or for commercial items developed in any part at Government expense, is to be obtained from a subcontractor or supplier for delivery to the Government under this contract, the Contractor shall use this same clause b1the subcontract or other contractual instrument, and require its subcontractors or suppliers to do so, without alteration, except to identify the parties. This clause will govern the technical data pertaining to noncommercial items or to any po1tion of a commercial item that was developed in any pa1t at Government expense and the clause at [***] will govern the technical data pertaining to any portion of a commercial item that was developed exclusively at private expense. No other clause shall be used to enh1rge or diminish the Government's, the Contractor's, or a higher-tier subcontractor's or supplier's rights in a subcontractor's or supplier's technical data.

(3) Technical data required to be delivered by a subcontractor or supplier shall normally be delivered to the nex1 higher-tier contractor, subcontractor, or supplier. However, when there is a requirement in the prime contract for data which may be submitted with other than unlimited rights by a subcontractor or supplier, then said subcontractor or supplier may fulfill its requirement by submitting such data directly to the Government, rather than through a higher-tier contractor, subcontractor, or supplier.

(4) The Contractor and higher-tier subcontractors or suppliers shall not use their power to award contracts as economic leverage to obtain rights in technical data from their subcontractors or suppliers.(5) 111no event shall the Contractor use its obligation to recognize and protect subcontractor or supplier rights in technical data as an excuse for failing to satisfy its contractual obligations to the Government.

(End of clause)

[***]

(a) The terms used in this provision are defined in following clause or clauses contained in this solicitation--

(1) lf a successful offeror will be required to deliver technical data, [***], or, if this solicitation contemplates a contract under the Small Business Innovation Research Program, the Rights in Noncommercial Technical Data and Computer Software-Small Business Innovation Research (SBIR) Program clause.

(2) If a successful offeror will not be required to deliver technical data, the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause, or, if this solicitation contemplates a contract under the Small Business Innovation Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovation Research (SBIR) Program clause.

(b) The identification and assertion requirements in this provision apply only to technical data, including computer software documents, or computer software to be delivered with other than unlimited rights. For contracts to be awarded under the Small Business Innovation Research Program , the notification requirements do not apply to technical data or computer software that will be generated under the resulting contract. Notification and identification is not required for restrictions based solely on copyright.

(c) Offers submitted in response to this solicitation shall identify, to the extent known at the time an offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers, asse1i should be furnished to the Government with restriction s on use, release, or disclosure.

(d) The Offeror’s assertions, including the asse1iions of its subcontractors or suppliers or potential subcontractors or suppliers shall be submitted as an attachment to its offer in the following format, dated and signed by au official authorized to contractually obligate the Offeror:

Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.

The Offeror asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data or computer software should be restricted:

Technical Data or Computer Software to be Furnished With Restrictions *	Basis for Assertion **	Asserted Rights Category ***	Name of Person Asserting Restrictions ****
(UST) *****	(LIST)	(UST)	(LIST)

*For technical data (other than c-0mputer software documentation) pe1taio.ing to items, components, or processes developed at private expense, identify both the deliverable technical data and each such items, component, or process. For computer software or computer software documentation identify the software or documentation.

**Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software docu111entation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation enter the specific basis for asserting restrictions.

***Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).

****Corporation, individual, or other persons appropriate.

*****Enter "none" when all data or software will be submitted without restrictions.

Printed Name and Title _____

Signature _____

(End of identification and assertion)

(a) An offeror' s failure to submit, complete, or sign the notification and identification required by paragraph (d) of this provision with its offer may render the offer ineligible *for* award.

(f) If the Offeror is awarded a contract, the asse1tions identified in paragraph (d) of this provision shall be listed in an attachment to that contract. Upon request by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate any listed asse1tion.

(End of provision)

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00008	23-Apr-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144		FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel121691
See attached summary of changes for incremental funding.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 23-Apr-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

SUBCLIN 000104 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNITUNIT PRICE	AMOUNT
000104				$0.00
	Funding for CLIN 0001 COST FY12 Incremental Funding FOB: Destination			
			ESTIMATED COST	$0.00
				$13,489,187.00

ACRN AE
CIN: 00000000000000000000000000000000

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $10,569,177.00 from $24,178,702.00 to $34,747,879.00.

SUBCLIN 000104:
Funding on SUBCLIN 000104 is initiated as follows:

ACRN: AE

CIN: 00000000000000000000000000000000

Acctng Data: 9720400260125Y5YTT40603884BP0255Y12YT44W56QTY2111N005YT4412044008

Increase: $13,489,187.00

Total: $13,489,187.00

CLIN 0005:

AD: 9720400260125Y5YTT40603884BP0255Y81YT44W81XAG2047N004YT4481044008 (CIN 00000000000000000000000000000000) was decreased by $2,920,010.00 from $2,920,010.00 to $0.00

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE: V	PAGE OF PAGES: 1 | 2
2. AMENDMENT/MODIFICATION NO: P00009	3. EFFECTIVE DATE: 29-Jun-2012	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY / CODE: W911QY ACC-APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702		7. ADMINISTERED BY (If other than item 6) / CODE: SCN01A DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6		

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

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o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel122257
See attached summary of changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 06-Jul-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

SUBCLIN 000105 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000105					$0.00

Funding for CLIN 0001 FFP
To correct line of accounting, site ID
FOB: Destination

NET AMT $0.00

$3,950,000.00

ACRN AF
CIN: 00000000000000000000000000000

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation Summary for the Payment Office SUBCLIN 000103:

AC: 9710400260115Y5YTT40603884BP0255Y81YT44W81XAG2332N001YT4481044008 (CIN 00000000000000000000000000000) was decreased by $3,950,000.00 from $3,950,000.00 to $0.00

SUBCLIN 000105:

Funding on SUBCLIN 000105 is initiated as follows:

ACRN: AF

CIN: 00000000000000000000000000000

Acctng Data: 9710400260115Y5YTT40603884BP0255712YT44W81XAG2332N001YT4412044008

Increase: $3,950,000.00 Total: $3,950,000.00

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00010	16-Jul-2012	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel122369
See attached summary of changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 16-Jul-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

Modification P00009, signed on 6 Jul 2012 is hereby cancelled in its entirety.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00011	25-Jul-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-/IPG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MO 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel143314
See attached summary of changes to extend the delivery date of CLIN 0001 to 31 Mar 2015, at no additional cost to the Government.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 25-Jul-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was decreased by $8,889,187.00 from $34,747,879.00 to $25,858,692 .00.

SUBCLIN 000104:

AE: 9720400260125Y5YTT40603884BP0255Yl2YT44W56QTY2111 N005YT4412044008 (CIN 00000000000000000000000000000) was decreased by $8,889,187.00 from $13,489, 187.00 to $4,600,000.00

(End of Summary of Changes)

Exhibit 10.54

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00012	02-Aug-2012	see schedule	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC·APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETR ICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR clause 52.242- 15, Alt I, Stop-Work Order

E. IMPORTANT: Contractor xis not, ois required to sign this document and return ____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Modification Control Number : soconnel122526

See Attached Summary of Changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 03-Aug-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text: STOP-WORK ORDER

Pursuant to the authority of FAR Clause 52.242-15 "Stop-Work Order (Aug 1989)" the Contracting Officer herby issues a Stop-Work Order ordering the Contractor to stop work on W9113M-10-C-0057 effective 2 August 2012. The Contractor shall, effective immediately, cease to issue any further orders and/or subcontracts for materials or services in suppo1t of this contract, except for reasonable efforts specific to answering the Food and Drug Administration (FDA) [***] dated [***]. The Contractor shall immediately comply with this order and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by this order, to include indirect costs during the period of work stoppage effective until 1 Sep 12, unless modified.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00013	27-Aug-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC·APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MO 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.242-15, Alt 1 Stop-Work Order

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel122754
See attached summary of changes to clarify the Stop-Work Order from P00012.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 27-Aug-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30- BLOCK 14 CONTINUATION PAGE

The following have been added by full text: STOP-WORK ORDER CLARIFICATION

A. The purpose of this modification is to provide clarification of the allowable work that is to continue while under the Stop-Work Order. The efforts for the following CWBS numbers, with any associated limitations, shall continue and are considered appropriate and allowable to be billed to the Government during the month of August or until the Stop-Work period is lifted.

NWl.1.1.lL	Project Planning and Control
NW1.1.1.2C	EVM Compliance Efforts
NW1 .1.1.3L	Regulatory Operations Management
NW1 .1.1.3S	Sample Archiving
NWl.1.1.SL	EVMS Training
NWl.1.1.SC	EVMS training and Validation Review Preparation
NWl.1.2.lL	Phase 1 Clinical Trial Oversight
NWl.3.1 l5t	Clinical Batch
NWl.1.3.lL	Quality Operations Management
NWl.2.2	Non Clinical
NWl.3.3.lL	Clinical Study - In-Life - No dosing of patients may be conducted regardless of an FDA decision to lift the Clinical hold unless the stop-work order is lifted
NWl.3.3.lC	Clinical Study - In-Life Only FDA response activities
NWl.4.1.6.lS	In Vivo Equivalency Testing Activity and Tox
NWl.4.2.lL	Process Development
NWl.4.2.4.lL	GP Efficacy

NW1 .4.2.4.2L & NW1 .4.2.4.2S - only Draft & Finalize Report (Lyophilization and Toxicology Study CRL)

B. All other terms and conditions of this Contract remain the same and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00014	31-Aug-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-APGNATICK DIVISION 1564 FREEDMAN DRIVE FORTDETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.242-15, Stop-Work Order
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number; soconnel122814
See attached summary of changes that extends the Stop-Work Order period.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 4-Sep-12

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 ·BLOCK 14 CONTINUAT ION PAGE

The following have been added by full text: STOP-WORK ORDER EXTENSION
The Stop-Work Order issued by POOO 12 is hereby extended to 30 Sep 12, unless sooner cancelled. Those efforts identified as allowable under modification P00012 and P00013 shall continue during this extension.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00015	01-Oct-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.242-15, Stop-Work Order
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel123093
See Attached Summary of Changes that extends the Stop-Work Order Period.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The Stop-Work Order issued by P00012 is hereby extended to 31 Oct 2012, unless sooner cancelled. Those efforts identified as allowable for billing purposes under modification P00012-P00013 shall continue.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00016	02-0ct-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC·APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel139
See attached summary of changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
Ian MacLachlan, E.V.P. an d C.S.O.		TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)	Oct.2,2012	BY (Signature of Contracting Officer)	

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The Stop-Work Order issued on Contract W9113M-10-C-0057 by modification P00012 is hereby cancelled. Tekmira Pharmaceuticals is hereby directed to resume performance in accordance with the terms and conditions of the contract. Tekmira Pharmaceuticals Corporation (the Contractor) shall assert its right to any adjustment in delivery schedule or costs resulting from the stop-work order within thirty (30) days of receipt of this modification .

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES	
V	1	2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00017	19-Oct-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
NATICK CONTRACTING DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
CODE L8144 FACILITY CODE	X	10B. DATED (SEE ITEM 13) 14-Jul-2010

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement by both parties IAW FAR 43.103(a)
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: ssun13125
The Purpose of this modification is to correct the delivery date for CLIN 0001 to read 31 Dec 2012.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED October 19, 2012	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 22 Oct 12

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE

05-NOV-2012

To:

DELIVERY DATE

31-DEC-2012

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00018	31-Dec-2012		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC·APG NATICKDMSION 1564 FREEDMAN DRIVE FORT DETRICK MO 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement by both parties IAW FAR 43.103(a)
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: jbassetl135 16
The purpose of this Modification is to extend the delivery date for CLIN 0001 to 28 FEB 2013, at no additional cost to the Government.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 20-Dec-2012

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 000I has been changed from:

DELIVERY DATE

31-DEC-2012

To:

DELIVERY DATE

28-FEB-2013

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00019	04-Jan-2013		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC·APG NATICK DIVISION 1564FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number : soconnel13637

See attached summary or changes for obligation of incremental funding for CLIN0001.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 04-Jan-2013

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $2,000,000.00 from $25,858,692.00 to $27,858,692.00.

SUBCLIN 000104:

AE: 9720400260125Y5YTT40603884BP0255Y12YT44W56QTY2111N005YT4412044008 (CIN 00000000000000000000000000000) was increased by $2,000,000.00 from $4,600,000.00 to $6,600,000.00

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 3

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00020	19-Feb-2013	0010299853-0002	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144		FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel131058

See attached Summary of Changes for Incremental Funding for CLIN 0001, and extension of end date.

***due to technical problems with this contract writing system (PD2), page two of this modification show s changes to line items that are incorrect and will be fixed upon a system upgrade/correction** The result of this modification is to add incremental funding to CLIN 0001 (SubCLIN 000106) in the amount of $1,700,000 and to extend the end date of CLIN 0001 to 31 March 2013. This modification does not change the value of any CLINs or total contract value.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 28-Feb-2013

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0002
The total cost of this line item has decreased by $-70,544,571.00 from $70,544,571.00 to $0.00.

CLIN 0003
The total cost of this line item has increased by $41,750,675.00 from $28,793,896.00 to $70,544,571.00.

CLIN 0004
The total cost of this line item has increased by $22,908,460.00 from $5,885,436.00 to $28,793,896.00.

CLIN 0005
The total cost of this line item has increased by $5,885,436.00 from $0.00 to $5,885,436.00.

SUBCLIN 000106 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000106			Job	$0.00	$0.00

HFV-TEKMIRA FFP
Funding for CLIN 0001 FOB: Destination
PURCHASE REQUEST NUMBER: 0010299853-0002

NET AMT $0.00

$1,700,000.00

ACRN AG
CIN: GFEBS001029985300001

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for SUBCLIN 000106:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
28-FEB-2013		N/A	
		FOB: Destination	

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
31-MAR-2013		N/A	
		FOB: Destination	

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $1,700,000.00 from $27,858,692.00 to $29,558,692.00.

SUBCLIN 000106:
Funding on SUBCLIN 000106 is initiated as follows:

ACRN: AG
CIN: GFEBS001029985300001
Acctng Data: 097201320140400000265Y0440406255 A.0011315.3.1.1 6100.9000021001
Increase: $1,700,000.00
Total: $1,700,000.00
Cost Code: A5XAL

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00021	29-Mar-2013	0010299853-0002	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Modification Control Number: soconnel131431

See attached summary of changes for extension of end date of CLIN 0001, at not increased cost to the Government.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 29-Mar-2013

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
31-MAR-2013		N/A FOB: Destination	

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
30-APR-2013		N/A FOB: Destination	

(End of Summary of Changes)

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
	V	1 | 3

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00022	30-Apr-2013	0010299853-0002	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		9A. AMENDMENT OF SOLICITATION NO.
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010

CODE L8144	FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel131822
See attached Summary of Changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED April 30, 2013	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 1 May 2013

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text: MODIFICATION P00022

A. The purpose of this modification is to incorporate Tekmira Pharmaceuticals Corporation change proposal dated 1 Nov 12 through revisions received 22 Apr 13 for the incorporation of reformulation of SNALP-G in CLIN 0001 thereby effecting the changes to Sections A., B., F., and J. shown below. The Statement of Work, Attachment 1 to Section J, as revised 8 Feb 2013, is attached to this modification.

B. Included in the estimated Target Costs increased by this modification are costs that are [***] in the amount of $[***] as delineated in the proposal through revision dated [***].

C. At the time the price for this modification was established, agreement could not be reached on indirect expense rates due to audit not yet being completed. The indirect costs are being audit by the Canadian Public Works Group. Upon conclusion of the audit any adjustments to the indirect rates shall require a modification to the Contract. Any upward adjustments resulting from this audit shall not be fee bearing. A ceiling is established herein for any upward adjustment whereby at no time shall the final target cost of CLIN 0001be caused to exceed $37,940,000.

D. The parties hereto specifically agree that the changes effected by this modification constitute both the consideration and the equitable adjustment due under any clause of this contract resulting from the incorporation of the proposal for the SNALP-G formulation.

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by $6,930,828.67 from $34,788,297.57 to $41,719,126.24.

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0001

The target cost has increased by $[***] from $[***] to $[***]. The target profit/fee has increased by $[***] from $[***] to $[***]
The total cost of this line item has increased by $[***] from $[***] to $[***]

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
30-APR-2013		N/A FOB: Destination	

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
30-SEP-2014		N/A FOB: Destination	

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

The following have been modified: SECTION J

LIST OF ATTACHMENTS

Attachment No.	Description	Date	Number of Pages
1	Contractor's Statement of Work	8 Feb 2013	25

Exhibit No.
A001 Contract Work Breakdown Structure (CWBS)
A002 Contractor's Progress, Status, & Management Report A003 Contract Funds Status Report, DD Form 1586
A004 Integrated Master Schedule A005 Contract Performance Report A006 In Process Review

(End of Summary of Changes)

Exhibit 10.65

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
	V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00023	21-May-2013	0010299853-0002	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
ACC-APG NATICK DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		9A. AMENDMENT OF SOLICITATION NO.
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) In accordance w ith FAR Clause 52.232-22, Limitation of Funds.

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: jbassett131860
The Purpose of this Modification is to correct Min/Max Fee Values and add incremental funding for CLIN 0001, and assign a new Contracting Officer's Representative.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 21-May-2013

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0001
The minimum profit fee has increased by $[***] from $[***] to $[***]. The maximum profit fee has increased by $[***] from $[***] to $[***]. The target price has increased by $[***] from $[***] to $[***].

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $5,873,551.06 from $29,558,692.00 to $35,432,243.06.

SUBCLIN 000106:

AG: 097201320140400000265Y0440406255 A.0011315.3.1.1 6100.9000021001 A5XAL (CIN GFEBS001029985300001) was increased by $5,873,551.06 from $1,700,000.00 to $7,573,551.06

The following have been added by full text:

The Contracting Officer's Representative shown in Section "G" of this Contract is hereby changed to: ADEKUNLE (ADE) FAMODU

10109 Gridley Road, BLDG. 314, 2nd Floor Fort Belvoir, VA, 22060-5865
Telephone: (703) 704-1691
Email: adekunle.o.famodu.civ@mail.mil

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00024	19-Jun-2013	0010299853-0002	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
NATICK CONTRACTING DIVISION 1564 FREEDMAN DRIVE FORT DETRICK MD 21702	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) In accordance w ith FAR Clause 52.232-22, Limitation of Funds

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: jbassett132247
The purpose of this modification is to provide funding for CLIN 0001. As a result of this action, the contract is fully funded.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 19-Jun-2013

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $6,286,883.18 from $35,432,243.06 to $41,719,126.24.

SUBCLIN 000106:

AG: 097201320140400000265Y0440406255 A.0011315.3.1.1 6100.9000021001 A5XAL (CIN GFEBS001029985300001) was increased by $6,286,883.18 from $7,573,551.06 to $13,860,434.24

(End of Summary of Changes)

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 4

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00025	22-Apr-2014	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel141729
See attached Summary of Changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Ian Maclachlan, Ph.D. Executive Vice President and Chief Technical Officer	Sandra J. O'Connell/Contracting Officer TEL: EMAIL:

15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
/s/ Ian MacLachlan (Signature of person authorized to sign)	24-April-2014	BY /s/ Sandra O'Connell (Signature of Contracting Officer)	23-April-2014

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14CONTINUATION PAGE

The following have been added by full text:

P00025

A. The purpose of this modification is to 1) add CLIN 0006, as a [***] add value and funding to the contract for anticipated OH billing rate increases for FY12 through FY14 for efforts towards delivery of CLIN 0001. This value is non fee bearing and is subject to final audit. 3) [***] credits appearing on Vouchers BVN0040 and BVN0046 offered as consideration.

B. All other terms and conditions of this contract are unchanged and in full force and effect.

C. The parties hereto specifically agree that the changes effected by this modification constitute both the consideration and equitable adjustment due under any clause of this contract.

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by $2,100,000.00 from $41,719,126.24 to $43,819,126.24.

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0006 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006			Job		$[***]
	[***] [***] [***] FOB: Destination PURCHASE REQUEST NUMBER: 0010481491-0002				
				ESTIMATED COST	$[***]
				[***]	$[***]
				TOTAL EST COST + FEE	$[***]
					$[***]

ACRN AH
CIN: GFEBS001048149100001

CLIN 0007 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007			Job		$1,622,213.82

OH Rate Increase CPIF
[***] for anticipated increase of OH rates is added to the contract value for CLIN 0001 efforts. This amount is subject to Final audit of indirect rates for FY12-14.
FOB: Destination
PURCHASE REQUEST NUMBER: 0010481491-0002

TARGET COST	$[***]
TARGET FEE	$[***]
TOTAL TGT COST + FEE	$[***]
MINIMUM FEE	$[***]
MAXIMUM FEE	$[***]
SHARE RATIO ABOVE TARGET	
SHARE RATIO BELOW TARGET	

ACRN AH $[***]
CIN: GFEBS001048149100002

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for CLIN 0006:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

The following Acceptance/Inspection Schedule was added for CLIN 0007:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $2,100,000.00 from $41,719,126.24 to $43,819,126.24.

CLIN 0006:
Funding on CLIN 0006 is initiated as follows:

ACRN: AH

CIN: GFEBS001048149100001

Acctng Data: 097201420150400000265Y0550506255 A.0011315.4.1.2.3 6100.9000021001

Increase: $[***]

Total: $[***]

Cost Code: A5XAH

CLIN 0007:
Funding on CLIN 0007 is initiated as follows:

ACRN: AH

CIN: GFEBS001048149100002

Acctng Data: 097201420150400000265Y0550506255 A.0011315.4.1.2.3 6100.9000021001

Increase: $[***]

Total: $[***]

Cost Code: A5XAH

(End of Summary of Changes)

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE: V	PAGE OF PAGES: 1 | 2
2. AMENDMENT/MODIFICATION NO: P00026	3. EFFECTIVE DATE: 25-Jul-2014	4. REQUISITION/PURCHASE REQ. NO.: SEE SCHEDULE	5. PROJECT NO. (If applicable):	
6. ISSUED BY CODE: W911QY W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011		7. ADMINISTERED BY (If other than item 6) CODE: SCN01A DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6		

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
CODE L8144 FACILITY CODE	X	10B. DATED (SEE ITEM 13) 14-Jul-2010

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel142671
See attached Summary of Changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Ian MacLachlan, Ph.D. Executive Vice President and Chief Technical Officer		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) SANDRA OCONNELL TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR /s/ Ian MacLachlan (Signature of person authorized to sign)	15C. DATE SIGNED 25-Jul-2014	16B. UNITED STATES OF AMERICA BY /s/ Sandra O'Connell (Signature of Contracting Officer)	16C. DATE SIGNED 25-Jul-2014

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text:
P00027
A. Pursuant to mutual agreement by both parties, the purpose of this bilateral modification is to provide [***].

1. [***]: [***]

B. Tekmira Pharmaceuticals Inc., acknowledges and agrees by signature on this modification that the [***].

C. All Other Terms and Conditions of this contract remain the same and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00027	25-Jul-2014	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel142683
See attached Summary of Changes to correct page 2 of Modification P00026.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Ian MacLachlan, Ph.D. Executive Vice President and Chief Technical Officer	SANDRA OCONNELL / CONTRACT SPECIALIST / GRANTS O TEL: EMAIL:

15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
/s/ Ian MacLachlan (Signature of person authorized to sign)	25-Jul-2014	BY /s/ Sandra O'Connell (Signature of Contracting Officer)	25-Jul-2014

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text: CORRECTION TO P00026

A. The Purpose of this modification is to correct reference shown in text block on page 2 of Modification P00026 from P00027 to P00026.
B. As a result of this modification all other terms and conditions of this contract remain the same and in full force and effect.

(End of Summary of Changes)

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
	V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00028	05-Sep-2014	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel143128
See attached Summary of Changes.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Ian MacLachlan, Ph.D. Executive Vice President andChief Technical Officer	SANDRA J. O'CONNELL / CONTRACTING OFFICER TEL: EMAIL:

15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY (Signature of Contracting Officer)	

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTIN UATION PAGE

The following have been added by full text: P00028

A. Pursuant to mutual agreement by both parties, the purpose of this bilateral modification is to provide [***].

I. [***]: [***]

B. Tekmira Pharmaceuticals Inc., acknowledges and agrees by signature on this modification that the [***]

C. All Other Terms and Conditions of this contract remain the same and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 | 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00029	30-Sep-2014	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011	W911QY	DCMA AMERICAS (CANADA) 275 BANK ST. SUITE 200 OTTAWA, ONT. CNK2P-2L6	SCN01A

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144		FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel143314
See attached summary of changes to extend the delivery date of CLIN 0001 to 31 Mar 2015, at no additional cost to the Government.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) SANDRA J. O'CONNELL / CONTRACTING OFFICER TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
30-SEP-2014		N/A FOB: Destination	

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
31-MAR-2015		N/A FOB: Destination	

(End of Summary of Changes)

Exhibit 10.72

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 5

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00030	31-0ct-2014	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011	W911QY	W6QKACC-APG NATICK 110 THOMAS JOHNSON DR SUITE #240 FREDERICK MD 21702	IW911QY

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel15247
See attached summary of changes that change the WAWF payment instructions and adds CUN 0008 and associated Statement of Work to Section J, attached to this modification.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
Ian MacLachlan, Executive VP / CTO		Sandra J. O 'Connell/Contracting Officer TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)	31-0ct-2014	BY (Signature of Contracting Officer)	1 Nov 2014

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text:

P00030

A. Pursuant to mutual agreement by both parties, the purpose of this bilateral modification is to 1) Revise WAWF payment instructions 2) Revise SOW, Attachement 1 to Section J. 3) Add CLIN 0008 to effect the [***] as shown below. Proposal dated through Revisions, 21 Oct 2014, is incorporated in its entirety by reference.

1. WAWF payment clause is revised to indicate that the Contractor shall submit a "2-in-1" transaction, providing the Cost Voucher as an attachment, using Approver DoDAAC as W911QY.

2. SOW, Attachment 1 to Section J is hereby replaced with the attachment to this modification which is dated 29 Oct 2014. The Baseline changes that will occur due to the change in the SOW/addition of CLIN 0008 will be reviewed by the Government within 30 days of the execution of this modification.

3. CLIN 0008 and associated Subline items are added as shown below.

B. All other terms and conditions of this contract remain the same and in full force and effect.

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by $7,000,000.00 from $[***] to $[***].

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0008 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008					$7,000,000.00

Manufacture of TKM Ebola
CPFF
Manufacture of Ebola countermeasure targeting Guinea variant strain. Successful Production and fill/finish of [***], GMP grade (per CFR Parts 210 and 211), [***], suitable for administration to patients under an Emergency IND protocol. Includes relevant raw material and product release and stability testing and technology transfers, set-up and validation. In accordance with the revised SOW, paragraph 4.4.4., attached in Section J.
Cost: $[***]
Fixed Fee: $[***]
Total Cost and Fee: $7,000,000

FOB: Destination

ESTIMATED COST	$[***]
FIXED FEE	$[***]
TOTAL EST COST + FEE	$7,000,000.00

SUBCLIN 000801 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000801			Job		$0.00

Funding for CLIN 0008
COST
FOB: Destination
PURCHASE REQUEST NUMBER: 0010481491-0004

ESTIMATED COST	$0.00

ACRN AH $[***]
CIN: GFEBS001048149100003

SUBCLIN 000802 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000802			Job		$0.00
	Funding for CLIN 0008 COST FOB: Destination PURCHASE REQUEST NUMBER: 0010612797				
				ESTIMATED COST	$0.00
	ACRN AJ CIN: GFEBS001061279700001				

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for CLIN 0008:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

The following Acceptance/Inspection Schedule was added for SUBCLIN 000801:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

The following Acceptance/Inspection Schedule was added for SUBCLIN 000802:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $[***] from $[***] to $[***].

SUBCLIN 000801:
Funding on SUBCLIN 000801 is initiated as follows:

ACRN: AH

CIN: GFEBS001048149100003

Acctng Data: 097201420150400000265Y0550506255 A.0011315.4.1.2.3 6100.9000021001

Increase: $658,576.68

Total: $658,576.68

Cost Code: A5XAH

SUBCLIN 000802:
Funding on SUBCLIN 000802 is initiated as follows:

ACRN: AJ

CIN: GFEBS001061279700001

Acctng Data: 097201520160400000265Y0550506255 A.0011315.4.1.3.1 6100.9000021001

Increase:

Total:

Cost Code: A5XAH

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
V	1 3

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00031	17-Nov-2014	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011	W911QY	W6QKACC-APG NATICK 110THOMAS JOHNSON DR SUITE#240 FREDERICK MD 21702	W911QY

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel15392

A. The purpose of this modification is to add incremental funding as shown in the attached summary of changes.
B. All other terms and conditions of this Contract remain the same and in f ull force and effect.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) SANDRA OCONNELL/ CONTRACT SPECIALIST /GRANTS 0 TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 17-Nov-2014

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

SUBCLIN 000803 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000803			Job		$0.00

Funding for CLIN 0008
COST
FOB: Destination
PURCHASE REQUEST NUMBER: 0010618769

ESTIMATED COST $0.00

$6,341,423 .32

ACRN AJ
CIN: GFEBS001061876900001

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for SUBCLIN 000803:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	*N/A*	*N/A*	Government

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $6,341,423.32 from $44,477,702.92 to $50,819,126.24.

SUBCLIN 000803:
Funding on SUBCLIN 000803 is initiated as follows:

ACRN: AJ

ClN:GFEBS001061876900001

Acctng Data: 097201520160400000265Y0550506255	A.0011315.4 .1.3.1	6100.9000021001

Increase:$6,341,423.32

Total: $6,341,423.32

Cost Code: A5XAH

(End of Summary of Changes)

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 2

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00032	04-Mar-2015	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011	W911QY	W6QK ACC-APG NATICK 110 THOMAS JOHNSON DR SUITE #240 FREDERICK MD 21702	W911QY

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		9A. AMENDMENT OF SOLICITATION NO.
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010

CODE L8144 FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.217-7, Option for Increased Quantity - Separately Reed Line Item

E. IMPORTANT: Contractor x is not, o is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel151208
See attached summary of changes for the exercise of Option CLIN0002.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) SANDRA OCONNELL/CONTRACT SPECIALIST/ GRANTSO TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 04-Mar-2015

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by $[***] from $[***] to $[***].

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0002
The option status has changed from Option to Option Exercised.

(End of Summary of Changes)

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 4

2. AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00033	04-Mar-2015	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W6QK ACC-APG NATICK CONTRACTING DIVISION BLDG 1 KANSAS STREET NATICK MA 01760-5011	W911QY	W6QK ACC-APG NATICK 110 THOMAS JOHNSON OR SUITE #240 FREDERICK MD 21702	I W911QY

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
TEKMIRA PHARMACEUTICALS CORPORATION 8900 GLENLYON PKY SUITE 100 BURNABY V5J 5J8		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W9113M-10-C-0057
	X	10B. DATED (SEE ITEM 13) 14-Jul-2010
CODE L8144	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

o The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer o is extended o is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

X	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. 52.243-2 Alt V
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor x is not, o is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: soconnel151209
See attached summary of changes that provides direction for this Change Order, provides incremental funding for CLN 0002, effects agreement f or the [***] and changes the delivery date of CLIN0008.

Except as provided herein, all terms and conditions ofthe document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) SANDRA J. O'CONNELL / CONTRACTING OFFICER TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 04-Mar-215

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14CONTINUATION PAGE

The following have been added by full text:

MODIFICATION P00033

A. The purpose of this change order is to direct the Contractor to execute and accomplish the following activities related to CLIN 0002: GMP Manufacturing to support Non-Clinical Studies; NHP Delay Time to Treat and Aerosol Efficacy with the Kikwit Product; TKM-Ebola Guinea IND and Phase 2 Clinical Trial Preparation . Authorization to proceed only with the TKM-Ebola-Guinea IND submission and Phase 2 Clinical Trial Preparation at a [***] (funding provided under SubCLIN 000201, ACRN AK, as shown below) is provided in this modification, pending completed negotiation of the cost and schedule for all efforts to be included in CLIN 0002. A full proposal revision for these directed changes, to include anticipated changes to Option CLINs 0003, 0004 and additional CLINs for Phase 3 Clinical Trial, NOA filing and FDA Approval shall be provided to the Government no later than close of business on 18 March 2015.

B. This modification also provides the formal agreement on the [***], for which consideration is provided by credits to future invoices/vouchers submitted to the Government in the amount of $[***].

C. The delivery date for CLIN 0008 is changed to read 29 January 2016, as shown below.

D. All other terms and conditions of this contract remain the same and in full force effect.

SECTION B - SUPPLIES OR SERVICES AND PRICES

CUN 0007

The target price has increased by $[***] from $[***] to $[***].

SUBCLIN 000201 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000201			Job		$[***]
	Funding for CLIN 0002 CPIF FOB: Destination PURCHASE REQUEST NUMBER: 0010662723				
			TARGET COST		$[***]
			TARGET FEE		$[***]
			TOTAL TGT COST + FEE		$[***]
			MINIMUM FEE		$[***]
			MAXIMUM FEE		$[***]
			SHARE RATIO ABOVE TARGET		
			SHARE RATIO BELOW TARGET		
	ACRN AK CIN: GFEBSOO I 06627230000 I				$[***]

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for SUBCLIN 00020 I :

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	*N/A*	*N/A*	Government

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item has been added to CUN 0008:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
29-JAN-2016		*N/A* FOB: Destination	

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $[***] from $[***] to $[***].

SUBCLIN 00020 I :
Funding on SUBCLIN 000201 is initiated as follows:

ACRN:AK

CIN:GFEBSOO 106627230000 I

Acctng Data: 097201520 I 60400000265Y0550506255 A.001 1315.4.1.3.4 6100.9000021001

Increase:$[***]

Total: $[***]

Cost Code: A5XAH

(End of Summary of Changes)

Exhibit 10.76

EXECUTION COPY

3,750,000 Common Shares

TEKMIRA PHARMACEUTICALS CORPORATION

(incorporated under the Business Corporations Act *(British Columbia))*

UNDERWRITING AGREEMENT

October 17, 2013

STIFEL, NICOLAUS & COMPANY, INCORPORATED
As Representative of the several Underwriters named in Schedule I hereto
One Montgomery Street, Suite 3700
San Francisco, California 94104

Ladies and Gentlemen:

Tekmira Pharmaceuticals Corporation, a company incorporated under the Business Corporations Act *(British Columbia)* (the ***"Company"),*** proposes to sell to the several underwriters (the ***"Underwriters")*** named in Schedule I hereto for whom Stifel Nicolaus & Company, Incorporated is acting as representative (the ***"Representative"),*** an aggregate of 3,750,000 common shares (the *"Firm Shares")* of the Company (the ***"Common Shares").*** The Company has also granted to the several Underwriters an option to purchase up to an aggregate of 562,500 additional Common Shares, on the terms and for the purposes set forth in Section 3 hereof (the ***"Option Shares").*** The Firm Shares and any Option Shares purchased pursuant to this Underwriting Agreement are herein collectively called the ***"Securities."***

The Company hereby confirms its agreement with respect to the sale of the Securities to the several Underwriters.

1. Registration Statement and Prospectus. The Company has prepared and filed with the securities regulatory authorities (the ***"Qualifying Authorities ")*** in each of the provinces of Canada other than the Province of Quebec (the ***"Qualifying Jurisdictions ")*** a preliminary short form base shelf prospectus dated January 4, 2013 (the ***"Canadian Preliminary Base Prospectus "),*** and a final short form base shelf prospectus dated January 16, 2013, in respect of an aggregate of up to US$50,000,000 in certain securities of the Company, including Common Shares (collectively, the ***"Shelf Securities").*** The Company has selected the British Columbia Securities Commission (the ***"Reviewing Authority ")*** as its principal regulator under the passport system procedures provided for under Multilateral Instrument 11-102 - *Passport System* and National Policy 11-202 - *Process for Prospectus Reviews in Multiple Jurisdictions* (collectively, the ***"Passport System")*** in respect of the offering of the Shelf Securities. The Reviewing Authority has issued a Passport decision document under the Passport System evidencing that a receipt has been issued (a ***"Passport Decision Document")*** on behalf of itself and the other Qualifying Authorities for each of the Canadian Preliminary Base Prospectus and the Canadian Base Prospectus. The term ***"Canadian Base Prospectus"*** means the final short form base shelf prospectus dated January 16, 2013 relating to the Shelf Securities, including any documents incorporated by reference therein and the documents otherwise deemed to be a part thereof or included therein pursuant to Canadian Securities Laws (as defined below), at the time the Reviewing Authority issued a Passport Decision Document with respect thereto in accordance with Canadian Securities Laws, including National

Instrument 44-101 - *Short Form Prospectus Distributions* and National Instrument 44-102 - *Shelf Distributions* (together, the ***"Canadian Shelf Procedures")***. The Company has also prepared and filed with the Qualifying Authorities in accordance with the Canadian Shelf Procedures a preliminary prospectus supplement dated October 16, 2013 relating to the Securities, which excluded certain information (together with the Canadian Base Prospectus, and including any documents incorporated therein by reference and the documents otherwise deemed to be a part thereof or included therein pursuant to Canadian Securities Laws, the ***"Canadian Preliminary Prospectus")***.

The Company has also prepared and filed with the United States Securities and Exchange Commission (the *"Commission")* a registration statement on Form F-10 (File No. 333-185883) covering the registration of the Shelf Securities under the United States Securities Act of 1933, as amended (the *"Securities Act"* or *"Act ')* and the rules and regulations (the ***"Rules and Regulations")*** of the Commission thereunder, and such amendments to such registration statement as may have been permitted or required to the date of this Agreement. Such registration statement, including the Canadian Base Prospectus (with such deletions therefrom and additions thereto as are permitted or required by Form F-10 and the Rules and Regulations) and including exhibits to such registration statement has become effective in such form pursuant to Rule 467(b) under the Securities Act. Such registration statement, at any given time, including amendments thereto to such time, the exhibits and any schedules thereto at such time and the documents incorporated by reference therein pursuant to Item 4 of Form F-10 under the Securities Act at such time, is herein called the ***"Registration Statement. "*** The Registration Statement at the time it originally became effective is herein called the ***"Original Registration Statement. "*** Any registration statement filed by the Company pursuant to General Instruction ILE of Form F-10 under the Securities Act is called the ***"Upsizing Registration Statement"*** and, from and after the date and time of filing of the Upsizing Registration Statement, the term ***"Registration Statement"*** shall include the Upsizing Registration Statement. The prospectus in the form in which it appeared in the Original Registration Statement is herein called the ***"U.S. Base Prospectus."*** The preliminary prospectus supplement dated October 16, 2013 relating to the offering of the Securities, including all documents incorporated therein by reference, filed with the Commission pursuant to General Instruction ILL of Form F-10 under the Securities Act, together with the U.S. Base Prospectus, is hereinafter called a ***"U.S. Preliminary Prospectus."***

In addition, the Company (i) shall prepare and file with the Qualifying Authorities in accordance with Section 4(a) hereof a final prospectus supplement (the ***"Canadian Final Prospectus Supplement")*** to the Canadian Base Prospectus relating to the Securities, which includes the information omitted from the Canadian Preliminary Prospectus (together with the Canadian Base Prospectus, and including any documents incorporated therein by reference and the documents otherwise deemed to be a part thereof or included therein pursuant to Canadian Securities Laws, the ***"Canadian Final Prospectus "),*** and (ii) shall prepare and file with the Commission pursuant to General Instruction ILL of Form F-10 and in accordance with Section 4(a) hereof a final prospectus supplement (the ***"U.S. Final Prospectus Supplement")*** to the U.S. Base Prospectus relating to the offering of the Securities (including all documents incorporated therein by reference, together with the U.S. Base Prospectus, the ***"U.S. Final Prospectus ").*** The U.S. Preliminary Prospectus and the Canadian Preliminary Prospectus are referred to herein as the ***"Preliminary Prospectuses,"*** and the U.S. Final Prospectus and the Canadian Final Prospectus are referred to herein as the ***"Final Prospectuses."*** Any amendment to the Canadian Final Prospectus, any amended or supplemental prospectus, any management information circular, financial statement, management's discussion and analysis, annual information form, business acquisition report or material change report that may be filed by or on behalf of the Company under the securities laws of the Qualifying Jurisdictions prior to the expiry of the period of distribution of the Securities, where such document is deemed to be incorporated by reference into the Canadian Final Prospectus, is referred to herein collectively as the ***"Supplementary Material."*** Any reference herein to any "amendment" or "supplement" to the U.S. Preliminary Prospectus or the U.S. Final Prospectus shall be deemed to refer to

and include (i) the filing of any document with the Reviewing Authority or the Commission after the date of the U.S. Preliminary Prospectus or the U.S. Final Prospectus, as the case may be, and prior to the First Closing Date or the Second Closing Date, as applicable, which is incorporated therein by reference or is otherwise deemed to be a part thereof or included therein by the Rules and Regulations and (ii) any such document so filed prior to the First Closing Date or the Second Closing Date, as applicable.

The Underwriters shall offer the Securities for sale to the public directly and through other investment dealers and brokers in the Qualifying Jurisdictions and the United States only as permitted by applicable law and upon the terms and conditions set forth in the Preliminary Prospectuses and this Agreement. Notwithstanding the foregoing, the Underwriters represent and warrant that the Underwriters have a reasonable expectation that Securities offered for sale to the public will be sold primarily in the United States of America. The Underwriters agree that they will not, directly or indirectly, distribute the Registration Statement, the Preliminary Prospectuses or the Final Prospectuses or publish any prospectus, circular, advertisement or other offering material in any jurisdiction other than the Qualifying Jurisdictions or such states of the United States in which the Securities are duly qualified under U.S. federal and applicable U.S. state securities laws, in such manner as to require registration of the Securities or the filing of a prospectus or any similar document with respect to the Securities by the Company therein or subject the Company to ongoing periodic reporting obligations in such jurisdiction pursuant to the securities laws of such jurisdiction. Sales of Securities in the Qualifying Jurisdictions may be made only by or through a dealer appropriately registered under applicable Canadian Securities Laws or in circumstances where an exemption from the Canadian registered dealer requirements is available, or such requirements do not apply.

The Company has also prepared and filed with the Commission an appointment of agent for service of process upon the Company on Form F-X in conjunction with the filing of the Registration Statement (the ***"Form** F-X").*

For purposes of this Agreement, all references to the Registration Statement, any Upsizing Registration Statement, the U.S. Base Prospectus or the U.S. Preliminary Prospectus, any Issuer Free Writing Prospectus (as defined below) or the U.S. Final Prospectus, or any amendment or supplement to any of the foregoing, shall be deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System ***("EDGAR").*** For purposes of this Agreement, all references to the Canadian Preliminary Base Prospectus, the Canadian Base Prospectus, the Canadian Preliminary Prospectus or the Canadian Final Prospectus, or any amendment or supplement to any of the foregoing (including any Supplementary Material), shall include the copy filed with the Qualifying Authorities pursuant to the System for Electronic Document Analysis and Retrieval ***("SEDAR").***

All references in this Agreement to financial statements and schedules and other information which is "contained," "included" or "stated" in the Registration Statement, any Upsizing Registration Statement, the U.S. Base Prospectus, the U.S. Preliminary Prospectus or the U.S. Final Prospectus (or other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is incorporated by reference in or otherwise deemed by the Rules and Regulations to be a part of or included in the Registration Statement, any Upsizing Registration Statement, the U.S. Base Prospectus, the U.S. Preliminary Prospectus or the U.S. Final Prospectus, as the case may be; and all references in this Agreement to amendments or supplements to the Registration Statement, the U.S. Base Prospectus, the U.S. Preliminary Prospectus or the U.S. Final Prospectus shall be deemed to mean and include the filing of any document under the United States Securities Exchange Act of 1934, as amended (the *"Exchange Act"),* which is incorporated by reference in or otherwise deemed by Rules and Regulations to be a part of or included in the Registration Statement, the U.S. Base Prospectus, the U.S. Preliminary Prospectus or the U.S. Final Prospectus, as the case may be. All references in this Agreement to financial statements and other information which is "contained,"

"included" or "stated" in the Canadian Preliminary Base Prospectus, the Canadian Base Prospectus, the Canadian Preliminary Prospectus or the Canadian Final Prospectus (or other references of like import) shall be deemed to mean and include all such financial statements and other information which is incorporated by reference in or otherwise deemed by Canadian Securities Laws to be a part of or included in the Canadian Preliminary Base Prospectus, the Canadian Base Prospectus, the Canadian Preliminary Prospectus or the Canadian Final Prospectus, as the case may be.

2. Representations and Warranties of the Company. The Company represents and warrants to, and agrees with, the several Underwriters as follows:

(a) The Company is a reporting issuer (or equivalent thereof) in each Qualifying Jurisdiction, is not in default under the securities laws of any Qualifying Jurisdiction, and is in compliance in all material respects with its timely disclosure obligations under the Exchange Act, the Canadian Securities Laws and the requirements of the Toronto Stock Exchange (the ***"TSX"***) and the Nasdaq Global Market ***("NASDAQ")***. The Company meets the general eligibility requirements for use of the Canadian Shelf Procedures and for the use of a short form base shelf prospectus with respect to a distribution of securities. The Company meets the general eligibility requirements for use of Form F-10 under the Securities Act. The Reviewing Authority has issued a Passport Decision Document on behalf of itself and the other Qualifying Authorities for each of the Canadian Preliminary Base Prospectus and the Canadian Base Prospectus; subsequent to the issuance of the Passport Decision Document for the Canadian Base Prospectus, no other document with respect to the Canadian Base Prospectus has heretofore been filed or transmitted for filing with the Qualifying Authorities, except for any document filed with the Qualifying Authorities subsequent to the date of such Passport Decision Document in the form heretofore delivered to the Representative.

(b) The Statutory Prospectus (as defined below) at the Time of Sale (as defined below) complies with the requirements of the Securities Act and the Rules and Regulations in all material respects and does not contain an untrue statement of a material fact or omit to state a material fact req uired to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(c) The Original Registration Statement initially became effective under the Securities Act on January 17, 2013 and any Upsizing Registration Statement has become effective or will become effective upon filing with the Commission. No stop order suspending the effectiveness of the Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the best knowledge of the Company, are contemplated or threatened by the Commission. No order, ruling or determination having the effect of suspending the sale or ceasing the trading of any securities of the Company (including the Securities) has been issued or made by any Qualifying Authority, any other securities commission, stock exchange or other regulatory authority and no proceedings for that purpose have been instituted or are pending or, to the Company's knowledge, are contemplated by any such authority. Any request on the part of the Commission, any Qualifying Authority or any other securities commission, stock exchange or other regulatory authority for additional information in connection with the offering contemplated hereby has been complied with.

(d) Each part of the Registration Statement, any Upsizing Registration Statement and any post-effective amendment thereto, at the time such part became effective, at all other subsequent times until the expiration of the Prospectus Delivery Period (as defined below), and at the First Closing Date and the Second Closing Date (as defined below), as the case may be, and the U.S. Final Prospectus (or any amendment or supplement to the U.S. Final Prospectus), at the time it is first filed in accordance with General Instruction ILL of Form F-10 or the time of first use within the meaning of the Rules and Regulations, at all subsequent times until expiration of the Prospectus Delivery Period, and at the First

Closing Date and the Second Closing Date, as the case may be, complied and will comply in all material respects with the applicable requirements and provisions of the Securities Act, the Rules and Regulations and the Exchange Act and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The representations and warranties set forth in the immediately preceding sentence does not apply to statements in or omissions from the Registration Statement, any Upsizing Registration Statement, or any post-effective amendment thereto, or the Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with written information relating to an Underwriter furnished to the Company by the Representative specifically for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 6(f).

At the time of filing thereof with the Qualifying Authorities and at the First Closing Date and the Second Closing Date: (A) the Canadian Preliminary Prospectus and the Canadian Final Prospectus (and any further amendments or supplements thereto, including any Supplementary Material) complied and will comply in all material respects with the securities laws applicable in the Qualifying Jurisdictions and the respective rules and regulations made and forms prescribed under such laws together with applicable published policy statements (including, without limitation, the Canadian Shelf Procedures) and applicable notices of the Qualifying Authorities made in connection with the transactions contemplated by this Agreement (collectively, the ***"Canadian Securities Laws");*** and (B) the Canadian Preliminary Prospectus and the Canadian Final Prospectus (and any further amendments or supplements thereto, including any Supplementary Material) constituted and will constitute full, true and plain disclosure of all material facts relating to the Securities and the Company and its Subsidiaries, taken as a whole, and did not and will not contain a misrepresentation, as defined under Canadian Securities Laws, and did not and will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

The U.S. Preliminary Prospectus conformed and will conform to the Canadian Preliminary Prospectus and the U.S. Final Prospectus conformed and will conform to the Canadian Final Prospectus, in each case except for such deletions therefrom and additions thereto as are permitted or required by Form F-10 and the applicable rules and regulations of the Commission.

(e) Neither (A) any Issuer General Free Writing Prospectus(es) issued at or prior to the Time of Sale and set forth on Schedule II, the information set forth on Schedule III and the Statutory Prospectus at the Time of Sale, all considered together (collectively, the *"Time of Sale Disclosure Package"),* nor (B) any individual Issuer Limited-Use Free Writing Prospectus, when considered together with the Time of Sale Disclosure Package, includes or included as of the Time of Sale any untrue statement of a material fact or omit or omitted as of the Time of Sale to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from any Statutory Prospectus or any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by the Representative specifically for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 6(f). As used in this paragraph and elsewhere in this Agreement:

(i) ***"Time of Sale"*** means 8:00 a.m. (New York time) on the date of this Agreement, or such other time as agreed to by the Company and the Representative.

(ii) ***"Statutory Prospectus"*** means the Base Prospectus, as amended and supplemented immediately prior to the Time of Sale, including any document incorporated by

reference therein and any prospectus supplement deemed to be a part thereof. For purposes of this definition, information contained in a form of prospectus filed in accordance with General Instruction ILL of Form F-10 shall be considered to be included in the Statutory Prospectus as of the actual time that form of prospectus is filed with the Commission under the Securities Act.

(iii) ***"Issuer Free Writing Prospectus"*** means any "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, relating to the Securities that (A) is required to be filed with the Commission by the Company, or (B) is exempt from filing pursuant to Rule 433(d)(5)(i) under the Securities Act because it contains a description of the Securities or of the offering that does not reflect the final terms, or is a "bona fide electronic roadshow," as defined in Rule 433 of the Rules and Regulations, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g) under the Securities Act.

(iv) ***"Issuer General Free Writing Prospectus"*** means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors, as evidenced by its being specified in Schedule II hereto.

(v) ***"Issuer Limited-Use Free Writing Prospectus"*** means any Issuer Free Writing Prospectus that is not an Issuer General Free Writing Prospectus.

(f) (A) Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the Prospectus Delivery Period or until any earlier date that the Company notified or notifies the Underwriters as described in Section 4(c)(B), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, any Statutory Prospectus or the Prospectus. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished in writing to the Company by the Representative specifically for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 6(f).

(B)(l) At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Securities and (2) at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405 under the Securities Act, in the preceding three years not having been convicted of a felony or misdemeanor or having been made the subject of a judicial or administrative decree or order as described in Rule 405 (without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer), nor an "excluded issuer" as defined in Rule 164 under the Securities Act.

(C) Each Issuer Free Writing Prospectus satisfied, as of its issue date and at all subsequent times through the Prospectus Delivery Period, all other conditions to use thereof as set forth in Rules 164 and 433 under the Securities Act.

(g) The U.S. Preliminary Prospectus and the U.S. Final Prospectus delivered or to be delivered to the Underwriters for use in connection with this offering was or will be substantially identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T. The Canadian Preliminary Prospectus and the Canadian Final Prospectus delivered or to be delivered to the Underwriters for use in connection with this offering was or will be identical to the electronically transmitted copies thereof filed by the Company with the Qualifying Authorities pursuant to SEDAR.

(h) The financial statements of the Company, together with the related notes, set forth or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses comply in all material respects with the requirements of the Securities Act and the Exchange Act and fairly present the financial condition of the Company as of the dates indicated and the results of operations and changes in cash flows for the periods therein specified in conformity with generally accepted accounting principles used in the United States of America ***("U.S. GAAP"),*** consistently applied throughout the periods involved; and the supporting schedules included in the Registration Statement, if any, the Time of Sale Disclosure Package and the Final Prospectuses have been derived from the accounting records of the Company and present fairly the information required to be stated therein. No other schedules or financial statements are required to be included in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectuses. To the Company's knowledge, KPMG LLP, which has expressed its opinion with respect to the financial statements filed as a part of the Registration Statement and included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, are independent public accountants as required by the Securities Act, the Rules and Regulations and Canadian Securities Laws, are in good standing with the Canadian Public Accountability Board and are independent with respect to the Company within the meaning of the Sarbanes-Oxley Act of 2002 (the ***"Sarbanes-Oxley Act")*** for the periods required under General Instruction III.B. of Form F-10, and are also independent with respect to the Company as req uired by the Business Corporations Act (British Columbia), applicable Canadian Securities Laws and applicable Canadian professional standards. There has not been a "reportable event" (within the meaning of Section 4.11 of National Instrument 51-102 - Continuous Disclosure Obligations) between KPMG LLP and the Company. Except as described in the Time of Sale Disclosure Package and the Final Prospectuses, there are no material off-balance sheet transactions, arrangements, obligations (including contingent obligations), or any other relationships with unconsolidated entities or other persons, that may have a material current or, to the Company's knowledge, future effect on the Company's financial condition, changes in financial condition or results of operations. All non-GAAP financial information included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses complies in all material respects with the requirements of Regulation G under the Securities Act and the published policies of the Canadian securities regulatory authorities regarding the use of non-GAAP financial information.

(i) The Company has been duly incorporated and validly exists as a company in good standing under the Business Corporations Act (British Columbia). The Company has full corporate power and authority to own its properties and conduct its business as currently being conducted and as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, and is duly qualified to do business as a foreign corporation in good standing in each jurisdiction in which the failure to so qualify might result in a material adverse change in the general affairs, condition (financial or otherwise), business, prospects, property, operations or results of operations of the Company ***("Material Adverse Change")***.

(j) Protiva Biotherapeutics Inc. and Protiva Biotherapeutics (USA), Inc. (the ***"Subsidiaries"),*** are wholly-owned subsidiaries of the Company, have been duly incorporated and are validly existing as a corporations in good standing under the laws of their jurisdictions of incorporation, have the corporate power and authority to own, lease and operate their properties and to conduct their business as described in the Time of Sale Disclosure Package and the Final Prospectuses and are duly qualified to transact business and are in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing could not reasonably be expected to result in a Material Adverse Change. All of the issued and outstanding shares in the capital of each Subsidiary have been duly authorized and validly issued and are fully paid and non-assessable and are owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien,

encumbrance, claim or equity, except for any security interests, mortgages, pledges, liens, encumbrances, claims or equities that are described in the Time of Sale Disclosure Package and the Final Prospectuses; none of the outstanding shares in the capital of the Subsidiaries was issued in violation of preemptive or other similar rights of any shareholder of such Subsidiaries. Other than Protiva Biotherapeutics Inc. and Protiva Biotherapeutics (USA), Inc., the Company, directly or indirectly, owns no capital stock or other equity or ownership or proprietary interest in any corporation, partnership, association, trust or other entity.

(k) Except as contemplated in the Time of Sale Disclosure Package and the Final Prospectuses, subsequent to the respective dates as of which information is given in the Time of Sale Disclosure Package, (a) the Company has not incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock; and (b) there has not been any change in the capital stock (other than a change in the number of outstanding Common Shares due to the issuance of equity compensation awards under the Company's equity compensation plans or shares upon the exercise of outstanding options or warrants), or any material change in the short term or long term debt, or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock, of the Company (other than issuances of equity compensation awards under the Company's equity compensation plans), or any Material Adverse Change or any development that could reasonably be expected to result in a Material Adverse Change.

(l) Except as set forth in the Time of Sale Disclosure Package and the Final Prospectuses, there is not pending or, to the knowledge of the Company, threatened or contemplated, any action, suit or proceeding to which the Company is a party or of which any property or assets of the Company is the subject before or by any court or governmental agency, authority or body, or any arbitrator, which, individually or in the aggregate, could reasonably be expected to result in any Material Adverse Change. There are no current or pending legal, governmental or regulatory actions, suits or proceedings that are required to be described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses that have not been so described.

(m) There are no material statutes, regulations, contracts or documents that are required to be described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses or to be filed as exhibits to the Registration Statement by the Securities Act or by the Rules and Regulations that have not been so described or filed.

(n) This Agreement has been duly authorized, executed and delivered by the Company, and constitutes a valid, legal and binding obligation of the Company, enforceable in accordance with its terms, except as rights to indemnity hereunder may be limited by federal, state or provincial securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity. The execution, delivery and performance of this Agreement and the consummation of the transactions herein contemplated will not (A) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or the Subsidiaries pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or such Subsidiaries is a party or by which the Company or such Subsidiaries is bound or to which any of the property or assets of the Company or the Subsidiaries is subject, (B) result in any violation of the provisions of the charter, articles of incorporation or by-laws of the Company or the Subsidiaries or (C) result in the violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental agency or regulatory authority, except, in the case of clause (A), any lien, charge, encumbrance, indenture, mortgage, deed of trust, loan agreement or other

agreement or instrument that, would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change and except in the case of (C) above, could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change. No consent, approval, authorization or order of, or filing with, any court or governmental agency or body is required for the execution, delivery and performance of this Agreement or for the consummation of the transactions contemplated hereby, including the issuance or sale of the Securities by the Company, except such as may be required under the Securities Act, the rules of the Financial Industry Regulatory Authority ***("FINRA"),*** the NASDAQ, the TSX or state or provincial securities or blue sky laws; and the Company has full power and authority to enter into this Agreement and to consummate the transactions contemplated hereby including the authorization, issuance and sale of the Securities as contemplated by this Agreement.

(o) All of the issued and outstanding shares in the capital of the Company, including the outstanding Common Shares, are duly authorized and validly issued, fully paid and nonassessable, have been issued in compliance with all Canadian and, to the extent applicable, U.S. securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities that have not been waived in writing; the Securities which may be sold hereunder by the Company have been duly authorized and, when issued, delivered and paid for in accordance with the terms of this Agreement, will have been validly issued and will be fully paid and nonassessable; and the authorized share capital of the Company, including the Common Shares, conforms to the description thereof in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses. Except as otherwise described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, there are no preemptive rights or other rights to subscribe for or to purchase, or any restriction upon the voting or transfer of, any Common Shares pursuant to the Company's charter, by laws or any agreement or other instrument to which the Company is a party or by which the Company is bound, other than options to purchase Common Shares under the Company's existing stock option plans. Except as described in the Registration Statement, in the Time of Sale Disclosure Package and in the Final Prospectuses, neither the filing of the Registration Statement nor the offering or sale of the Securities as contemplated by this Agreement gives rise to any rights for or relating to the registration of any Common Shares or other securities of the Company that have not been fully complied with or previously waived. Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, there are no options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company any shares in the capital of the Company. The Company has an authorized and outstanding capitalization as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth in the Time of Sale Disclosure Package and the Final Prospectuses accurately and fairly presents in all material respects the information required to be shown with respect to such plans, arrangements, options and rights. Except as set forth in the Time of Sale Disclosure Package, the Company is not a participant in any joint venture, partnership or similar arrangement.

(p) The Company holds, and is operating in compliance in all material respects with, all franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders of any Governmental Authority or self-regulatory body required for the conduct of its business, and all such franchises, grants, authorizations, licenses, permits, easements, consents, certifications and orders are valid and in full force and effect; and the Company has not received notice of any revocation or modification of any such franchise, grant, authorization, license, permit, easement, consent, certification or order or has reason to believe that any such franchise, grant, authorization, license, permit, easement, consent, certification or order will not be renewed in the ordinary course; and the Company is in compliance in all material respects with all applicable U.S. and Canadian federal, provincial, state, local and foreign laws, regulations, orders and decrees.

(q) The Company has good and marketable title to all property (whether real or personal) described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses as being owned by them, in each case free and clear of all liens, claims, security interests, other encumbrances or defects except as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, and except those that could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change. The property held under lease by the Company is held by it under valid, subsisting and enforceable leases with only such exceptions with respect to any particular lease as do not interfere in any material respect with the conduct of the business of the Company.

(r) The Company owns, possesses, or can acquire on reasonable terms, all Intellectual Property (as defined below) necessary for the conduct of its business as now conducted or as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses to be conducted. Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, (A) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any such Intellectual Property, except for such infringements, misappropriations or violations that could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change; (B) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the Company's rights in or to any such Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (C) the Intellectual Property owned by the Company, and to the knowledge of the Company, the Intellectual Property licensed to the Company, have not been adjudged invalid or unenforceable, in whole or in part, and there is no pending or threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (D) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property or other proprietary rights of others, and the Company has not received any written notice of such claim and the Company is unaware of any other fact which would form a reasonable basis for any such claim; and (E) to the knowledge of the Company, no employee of the Company is in or has ever been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company or actions undertaken by the employee while employed with the Company, except for such violations that could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change. ***"Intellectual Property "*** shall mean all patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets and other intellectual property.

(s) The Company is not (A) in violation of its articles of incorporation or by Jaws; (B) in breach of or otherwise in default, and no event has occurred which, with notice or lapse ohime or both, would constitute such a default in the performance or observance of any term, covenant, obligation, agreement or condition contained in any bond, debenture, note, indenture, loan agreement, mortgage, deed of trust or any other contract, lease or other instrument to which it is subject or by which it may be bound, or to which any of the material property or assets of the Company is subject; or (C) in violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, except in the case of (B) and (C) above, as could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change.

(t) The Company has timely filed all United States federal, Canadian federal, state, provincial, local and foreign income and franchise tax returns required to be filed and is not in default in

the payment of any material taxes which was payable pursuant to said returns or any assessments with respect thereto, other than any which the Company is contesting in good faith. There is no pending dispute with any taxing authority relating to any of such returns and the Company has no knowledge of any proposed liability for any tax to be imposed upon the properties or assets of the Company for which there is not an adequate reserve reflected in the Company's financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses.

(u) The Company, directly or indirectly, owns no capital stock or other equity or ownership or proprietary interest in any corporation, partnership, association, trust or other entity, other than the Subsidiaries and other than as disclosed in the Time of Sale Disclosure Package.

(v) The Company has not distributed and will not distribute any prospectus or other offering material in connection with the offering and sale of the Securities other than the Time of Sale Disclosure Package or the Final Prospectuses or other materials permitted by the Securities Act to be distributed by the Company; *provided, however,* that, except as set forth on Schedule II, the Company has not made and will not make any offer relating to the Securities that would constitute a "free writing prospectus" as defined in Rule 405 under the Securities Act, except in accordance with the provisions of Section 4(o) of this Agreement.

(w) The Common Shares of the Company are registered pursuant to Section 12(b) of the Exchange Act, are listed on the NASDAQ under the ticker symbol "**TKMR**," and are listed on the TSX under the symbol "**TKM**". The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Shares under the Exchange Act or delisting the Common Shares from the NASDAQ or the TSX nor has the Company received any written notice that it is not in compliance with the listing or maintenance requirements of the NASDAQ or the TSX. The Company believes that it is, and has no reason to believe that it will not in the foreseeable future continue to be, in material compliance with all such listing and maintenance requirements. Except as described in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectuses, there are no affiliations among the Company's directors and officers and members of the FINRA other than as disclosed to the FINRA. A Registration Statement relating to the Common Shares on Form 8-A or other applicable form under the Exchange Act has become effective.

(x) The Company maintains a system of internal accounting controls sufficient to provide reasonable assurances that (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with U.S. GAAP, and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; and (D) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company's internal control over financial reporting is effective and none of the Company, its board of directors and audit committee is aware of any "significant deficiencies" or "material weaknesses" (each as defined by the rules adopted by the Commission) in its internal control over financial reporting, or any fraud that involves management or other employees of the Company who have a significant role in the Company's internal controls; and since the end of the latest audited fiscal year, there has been no change in the Company's internal control over financial reporting (whether or not remediated) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company's board of directors has, subject to the exceptions, cure periods and the phase in periods specified in the applicable stock exchange rules *("Exchange Rules"),* validly appointed an audit committee to oversee internal accounting controls whose composition satisfies the applicable independence and other requirements of the Exchange Rules and Canadian Securities Laws, and the Company's board of directors and/or the audit committee has adopted a charter that satisfies the requirements of the Exchange Rules and Canadian Securities Laws.

(y) The Company and its Subsidiaries maintain disclosure controls and procedures as required by Rule l 3a-15 or Rule 1Sd-15 under the Exchange Act and as contemplated by the certifications required under Form 52-109F1 and Form 52-109F2 under Multilateral Instrument 52-109 - Certification of Disclosures in Issuer's Annual and Interim Filings; such controls and procedures are effective to ensure that all material information concerning the Company and any of its Subsidiaries is made known, on a timely basis, to the individuals responsible for the preparation of the Company's filings with the Commission and the Qualifying Authorities. The Company has utilized such controls and procedures in preparing and evaluating the disclosures in the Registration Statement, in the Time of Sale Disclosure Package and in the Final Prospectuses. Neither the Company's board of directors nor the audit committee has been informed, nor is any director of the Company or the Company aware, of (A) any significant deficiencies in the design or operation of the Company's internal controls which could adversely affect the Company's ability to record, process, summarize and report financial data or any material weakness in the Company's internal controls; or (B) any fraud, whether or not material, that involves management or other employees of the Company who have a significant role in the Company's internal controls.

(z) No material relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, on the other hand, which is required to be described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses which is not so described. The Company has not, directly or indirectly, extended or maintained credit, or arranged for the extension of credit, or renewed an extension of credit, in the form of a personal loan to or for any of its directors or executive officers in violation of applicable laws, including Section 402 of the Sarbanes-Oxley Act.

(aa) Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, the Company: (A) is and at all times has been in compliance with all applicable U.S., Canadian and foreign statutes, rules, regulations, or guidances applicable to Company and the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company, except where such noncompliance could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change ***("Applicable Laws");*** (B) has not received any warning letter, untitled letter or other correspondence or written notice from the U.S. Food and Drug Administration or any other U.S. or Canadian federal, state, provincial or foreign governmental authority having authority over the Company ***("Governmental Authority ")*** alleging or asserting noncompl iance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws ***("Authorizations ");*** (C) possesses all Authorizations and such Authorizations are valid and in full force and effect and are not in violation of any term of any such Authorizations, except as could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change; (D) has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and have no knowledge that any such Governmental Authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received written notice that any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and the Company has no knowledge that any such Governmental Authority is considering such action; and (F) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct in all material respects on the date filed (or were corrected or supplemented by a subsequent submission).

(bb) The studies, tests and preclinical and clinical trials conducted by or on behalf of the Company were and, if still pending, are, being conducted in accordance with experimental protocols, procedures and controls pursuant to accepted professional scientific standards and all Applicable Laws and Authorizations; the descriptions of the results of such studies, tests and trials contained in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses are accurate and complete and fairly present the data derived from such studies, tests and trials; except to the extent disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, the Company is not aware of any studies, tests or trials the results of which the Company believes reasonably call into question the study, test, or trial results described or referred to in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses when viewed in the context in which such results are described and the clinical state of development; and the Company has not received any notices or correspondence from any Governmental Authority requiring the termination, suspension or material modification of any current or active studies, tests or preclinical or clinical trials conducted by or on behalf of the Company.

(cc) The Company (A) is in compliance with any and all applicable United States and Canadian federal, state, provincial, local and foreign laws, rules, regulations, decisions and orders relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (collectively, "**Environmental Laws** "); (B) has received and are in material compliance with all permits, licenses or other approvals required of it under applicable Environmental Laws to conduct its business; and (C) has not received notice of any actual or potential liability for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except in any such case for any such failure to comply, or failure to receive required permits, licenses or approvals, or liability as would not, individually or in the aggregate, result in a Material Adverse Change.

(dd) The documents filed as exhibits to the Registration Statement or otherwise incorporated by reference in the Time of Sale Disclosure Package and in the Final Prospectuses, when they became effective or were filed with the Commission or the Qualifying Authorities, as the case may be, conformed in all material respects to all applicable requirements of the Securities Act or the Exchange Act and all applicable requirements of Canadian Securities Laws, as the case may be, and were filed on a timely basis with the Commission and with the Qualifying Authorities, as the case may be, and none of such documents contained an untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; any further documents so filed and incorporated by reference in the Time of Sale Disclosure Package or in the Final Prospectuses, when such documents are filed with the Commission or the Qualifying Authorities, as the case may be, will conform in all material respects to all applicable requirements of the Securities Act or the Exchange Act and all applicable requirements of Canadian Securities Laws, as the case may be, and will not contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

Each document filed or to be filed with the Qualifying Authorities and incorporated or deemed to be incorporated by reference in the Canadian Base Prospectus, the Canadian Preliminary Prospectus and the Canadian Final Prospectus complied or will comply when so filed and at the First Closing Date and the Second Closing Date, as the case may be, in all material respects with Canadian Securities Laws, and did not or will not contain a misrepresentation as defined under Canadian Securities Laws, and none of such documents contained or will contain at the time of its filing and at the First Closing Date and the Second Closing Date, as the case may be, any untrue statement of a material fact or omitted or will omit to state a material fact required to be stated therein or necessary to make the

statements therein, in the light of the circumstances under which they were or are made, not misleading.

(ee) The Company (A) is in compliance, in all material respects, with any and all applicable United States and Canadian federal, state, province, local and foreign laws, rules, regulations, treaties, statutes and codes promulgated by any and all governmental authorities (including pursuant to the Occupational Health and Safety Act, if applicable) relating to the protection of human health and safety in the workplace ***("Occupational Laws");*** (B) has received all material permits, licenses or other approvals required of it under applicable Occupational Laws to conduct its business as currently conducted; and (C) is in compliance, in all material respects, with all terms and conditions of such permit, license or approval. No action, proceeding, revocation proceeding, writ, injunction or claim is pending or, to the Company's knowledge, threatened against the Company relating to Occupational Laws, and the Company does not have knowledge of any facts, circumstances or developments relating to its operations or cost accounting practices that could reasonably be expected to form the basis for or give rise to such actions, suits, investigations or proceedings. Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ***("ERISA"),*** that is maintained, administered or contributed to by the Company, or any of its affiliates for employees or former employees of the Company and has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to, ERISA and the Internal Revenue Code of 1986, as amended (the ***"Code").*** No prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption; and for each such plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no "accumulated funding deficiency" as defined in Section 412 of the Code has been incurred, whether or not waived, and the fair market value of the assets of each such plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such plan determined using reasonable actuarial assumptions.

(ff) Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, the Company has not granted rights to develop, manufacture, produce, assemble, distribute, license, market or sell its products to any other person and is not bound by any agreement that affects the Company's exclusive right to develop, manufacture, produce, assemble, distribute, license, market or sell its products.

(gg) Nothing has come to the attention of the Company that has caused the Company to believe that the statistical and market-related data included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses is not based on or derived from sources that are reliable and accurate in all material respects.

(hh) Other than as contemplated by this Agreement, the Company has not incurred any liability for any finder's or broker's fee or agent's commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

(ii) The Company is not presently doing business with the government of Cuba or with any person or affiliate located in Cuba.

(jj) The Company carries, or is covered by, insurance in such amounts and covering such risks as is adequate for the conduct of its business and the value of its properties and as is customary for companies engaged in similar businesses in similar industries; and the Company has not (A) received written notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance or (B) reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage at reasonable cost from similar insurers as may be necessary to continue its business. All such insurance is outstanding and duly in force on the date hereof.

(kk) No labor problem or dispute with the employees of the Company exists nor, to the best knowledge of the Company, is threatened or imminent except as could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change.

(11) Neither the Company, nor, to the best knowledge of the Company, any director, officer, agent, employee or other person associated with or acting on behalf of the Company has (A) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (B) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (C) violated or is in violation of any provision of the Canadian Corruption of Foreign Public Officials Act or the U.S. Foreign Corrupt Practices Act of 1977; or (D) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment.

(mm) The Company is not and, after giving effect to the offering, the sale of the Securities and the intended use of proceeds of the offering, will not be registered or required to register as an "investment company," as such term is defined in the Investment Company Act of 1940, as amended.

(nn) Except as described in the Final Prospectuses or otherwise obtained by the Company, no approval of the shareholders of the Company is required for the Company to issue and deliver to the Underwriters the Securities, including such as may be required pursuant to the rules and regulations of any trading market.

(oo) The Company 1s m compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act and the rules and regulations of the Commission thereunder.

(pp) The Company and its board of directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's articles of incorporation or by-laws, the Business Corporations Act (British Columbia) or other applicable Canadian laws that is or could reasonably be expected to become applicable to any of the Underwriters as a result of the Underwriters and the Company fulfilling their obligations or exercising their rights under the Agreement, including, without limitation, the Company's issuance of the Securities and the Underwriters' ownership of the Securities.

3. Purchase, Sale and Delivery of Securities.

(a) On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell the Firm Shares to the several Underwriters, and each Underwriter agrees, severally and not jointly, to purchase from the Company the number of Firm Shares set opposite the name of such Underwriter in Schedule I hereto, subject to adjustments in accordance with Section 9 hereof. The purchase price for each Firm Share shall be US$7.52 per share.

The Firm Shares will be delivered by the Company to the Representative for the accounts of the several Underwriters against payment of the purchase price therefor by wire transfer of same day funds payable to the order of the Company at the offices of Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, New York, or such other location as may be mutually acceptable, at 10:00 a.m. Eastern time on the third (or if the Firm Shares are priced, as contemplated by Rule 15c6-1(c) under the Exchange Act, after 4:30 p.m. Eastern time, the fourth) full business day following the date hereof, or at such other time and date as the Representative and the Company determine pursuant to Rule 15c6-1(a) under the Exchange Act, such time and date of delivery being herein referred to as the ***"First Closing Date."*** If the Representative so elects, delivery of the Firm Shares

may be made by credit through full fast transfer to the accounts at The Depository Trust Company designated by the Representative, or through CDS Clearing and Depository Services Inc.

(b) On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company hereby grants to the several Underwriters an option to purchase all or any portion of the Option Shares to be sold by the Company hereunder, at the same purchase price as the Firm Shares, for use solely in covering any over-allotments made by the Underwriters in the sale and distribution of the Firm Shares. The option granted hereunder may be exercised in whole or in part at any time and from time to time within 30 days after the effective date of this Agreement upon notice (confirmed in writing) by the Representative to the Company setting forth the aggregate number of Option Shares as to which the several Underwriters are exercising the option, the names and denominations in which the certificates for the Option Shares are to be registered and the date and time, as determined by the Representative, when the Option Shares are to be delivered, such time and date being herein referred to as the ***"Second Closing"*** and ***"Second Closing Date"***, respectively; provided, however, that the Second Closing Date shall not be earlier than the First Closing Date nor earlier than the second business day after the date on which the option shall have been exercised. The number of Option Shares to be purchased by each Underwriter shall be the same percentage of the total number of Option Shares to be purchased by the several Underwriters as the number of Firm Shares to be purchased by such Underwriter is of the total number of Firm Shares to be purchased by the several Underwriters, as adjusted by the Representative in such manner as the Representative deems advisable to avoid fractional shares. No Option Shares shall be sold and delivered unless the Firm Shares previously have been, or simultaneously are, sold and delivered.

The Option Shares will be delivered by the Company to the Representative against payment of the purchase price therefor by wire transfer of same day funds payable to the order of the Company at the offices of Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, New York, or such other location as may be mutually acceptable, at l 0:00 a.m. Eastern time, on the Second Closing Date. If the Representative so elects, delivery of the Option Shares may be made by credit through full fast transfer to the accounts at The Depository Trust Company designated by the Representative, or through CDS Clearing and Depository Services Inc.

follows:

4. ***Covenants.*** The Company covenants and agrees with the several Underwriters as

(a) During the period beginning on the date hereof and ending on the later of the Second Closing Date and such date, as in the opinion of counsel for the Underwriters, the Final Prospectuses are no longer required by law to be delivered (assuming the absence of Rule 172 under the Securities Act), in connection with sales by an Underwriter (the ***"Prospectus Delivery Period"***), prior to amending or supplementing the Registration Statement, including any Upsizing Registration Statement, the Time of Sale Disclosure Package or the Final Prospectuses, the Company shall furnish to the Underwriters for review a copy of each such proposed amendment or supplement, and the Company shall not file any such proposed amendment or supplement to which the Representative or counsel to the Underwriters reasonably object. Subject to this Section 4(a), immediately following execution of this Agreement, the Company will prepare the Canadian Final Prospectus Supplement in accordance with the Canadian Shelf Procedures and the U.S. Final Prospectus Supplement, consisting of the Canadian Final Prospectus Supplement with such deletions therefrom and additions thereto as are permitted or required by Form F-10 and the applicable rules and regulations of the Commission, in each case in a form reasonably approved by the Representative, and will file (i) the Canadian Final Prospectus Supplement with the Qualifying Authorities pursuant to the Canadian Shelf Procedures as soon as possible but not later than 8:00 a.m. (British Columbia time) on October 17, 2013, and (ii) the U.S. Final Prospectus Supplement with the Commission pursuant to General Instruction ILL of Form F-10 as soon as possible

and in any event within one business day of the filing of the Canadian Final Prospectus Supplement with the Qualifying Authorities.

(b) The Company will advise the Representative, promptly after it shall receive written notice of the issuance by the Commission or any of the Qualifying Authorities of any stop order or cease trade order suspending the effectiveness of the Registration Statement, or any post-effective amendment thereto, or preventing or suspending the use of any Preliminary Prospectus, the Time of Sale Disclosure Package, the Final Prospectuses or any Issuer Free Writing Prospectus, of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and the Company will promptly use its best efforts to prevent the issuance of any stop order or cease trade order or to obtain its withdrawal if such a stop order or cease trade order should be issued. Additionally, the Company will notify the Representative promptly, and confirm the notice as applicable, (1) when the Canadian Final Prospectus Supplement shall have been filed with the Qualifying Authorities pursuant to the Canadian Shelf Procedures, (2) when the U.S. Final Prospectus Supplement shall have been filed with the Commission pursuant to General Instruction ILL of Form F-10, (3) prior to the termination of the offering of the Securities, of any request by the Qualifying Authorities to amend or supplement, as applicable, the Canadian Base Prospectus, the Canadian Final Prospectus or any document incorporated by reference therein or for additional information or of any request by the Commission to amend the Registration Statement or to amend or supplement, as applicable, the U.S. Base Prospectus, the U.S. Final Prospectus or any document incorporated by reference therein or for additional information, (4) of the time when, prior to the termination of the offering of the Securities, any amendment or supplement, as applicable, to the Canadian Base Prospectus or any document incorporated by reference therein has been filed with or receipted by the Reviewing Authority, or of the filing with, or mailing or the delivery to, the Commission for filing of any amendment of the Registration Statement or supplement to the U.S. Base Prospectus.

(c) (A) During the Prospectus Delivery Period, the Company will comply as far as it is able with all requirements imposed upon it by the Securities Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, by the Exchange Act and by Canadian Securities Laws so far as necessary to permit the continuance of sales of or dealings in the Securities as contemplated by the provisions hereof, the Time of Sale Disclosure Package and the Final Prospectuses. If during such period any event shall occur or condition shall exist as a result of which the Final Prospectuses (or if the Final Prospectuses are not yet available to prospective purchasers, the Time of Sale Disclosure Package) would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend the Registration Statement or supplement the Final Prospectuses (or, if the Final Prospectuses are not yet available to prospective purchasers, the Time of Sale Disclosure Package) to comply with the Securities Act or to file under the Exchange Act or under Canadian Securities Laws any document which would be deemed to be incorporated by reference in the Final Prospectuses in order to comply with the Securities Act, the Exchange Act or Canadian Securities Laws, the Company will promptly notify the Representative and will amend the Registration Statement or supplement the Final Prospectuses (or, if the Final Prospectuses are not yet available to prospective purchasers, the Time of Sale Disclosure Package) or file such document (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(B) If, at any time following issuance of an Issuer Free Writing Prospectus, there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, any Statutory Prospectus or the Final Prospectuses relating to the Securities or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading,

the Company promptly will notify the Representative and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(d) The Company shall take or cause to be taken all necessary action to qualify the Securities for sale under the securities laws of the Qualifying Jurisdictions and to continue such qualifications in effect so long as required for the distribution of the Securities, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or to execute a general consent to service of process in any state.

(e) The Company will furnish or make available to the Underwriters, at the Company's expense, copies of the Registration Statement (which will include a manually signed copy of the Registration Statement and all consents and exhibits filed therewith upon reasonable request), and to the Underwriters and any dealer each Preliminary Prospectus, the Time of Sale Disclosure Package, the Final Prospectuses, the Issuer Free Writing Prospectus, and all amendments and supplements to such documents, in each case as soon as available and in such quantities as the Representative may from time to time reasonably request.

(f) The Company will make generally available to its security holders as soon as practicable, but in no event later than 15 months after the end of the Company's current fiscal quarter, an earnings statement (which need not be audited) covering a 12-month period that shall satisfy the provisions of Section 1l(a) of the Securities Act and Rule 158 of the Rules and Regulations.

(g) The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is prevented from becoming effective under the provisions of Section 8(a) hereof or is otherwise terminated, will pay or cause to be paid (A) all expenses (including transfer taxes allocated to the respective transferees) incurred in connection with the delivery to the Underwriters of the Securities, (B) all expenses and fees (including, without limitation, fees and expenses of the Company's accountants and counsel) in connection with the preparation, printing, filing, delivery, and shipping of the Registration Statement (including the financial statements therein and all amendments, schedules, and exhibits thereto), the Securities, each Preliminary Prospectus, the Time of Sale Disclosure Package, the Final Prospectuses, any Issuer Free Writing Prospectus and any amendment thereof or supplement thereto, and the printing, delivery, and shipping of this Agreement and other underwriting documents, including Blue Sky Memoranda (covering the states and other applicable jurisdictions), (C) all reasonable and documented filing fees and reasonable fees and disbursements of the Underwriters' counsel incurred in connection with the qualification of the Securities for offering and sale by the Underwriters or by dealers under the securities or blue sky laws of the states and other jurisdictions which the Representative shall designate, (0) the fees and expenses of any transfer agent or registrar, (E) the reasonable and documented filing fees and fees and disbursements of Underwriters' counsel incident to any required review and approval by FINRA of the terms of the sale of the Securities, (F) listing fees, if any, (G) the costs and expenses of the Company relating to investor presentations or any "roadshow" undertaken in connection with the marketing of the Securities, and (H) all other costs and expenses of the Company incident to the performance of its obligations hereunder that are not otherwise specifically provided for herein. Except as provided in this Section 4(g), the Underwriters shall pay their own expenses, including the fees and disbursements of their counsel. If this Agreement is terminated pursuant to Section 8(a) hereof or if the sale of the Securities provided for herein is not consummated by reason of action by the Company pursuant to Section 9 hereof which prevents this Agreement from becoming effective, or by reason of any failure, refusal or inability on the part of the Company to perform any agreement on its part to be performed, or because any other condition of the Underwriters' obligations hereunder required to be fulfilled by the Company is not fulfilled, the Company will reimburse the

Underwriters for all reasonable and documented out-of-pocket disbursements (including reasonable fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges) incurred by the Underwriters in connection with their investigation, preparing to market and marketing the Securities or in contemplation of performing their obligations hereunder. The Company shall not in any event be liable to the Underwriters for loss of any anticipated profits from the transactions contemplated by this Agreement.

(h) The Company intends to apply the net proceeds from the sale of the Securities to be sold by it hereunder for the purposes set forth in the Time of Sale Disclosure Package and in the Final Prospectuses.

(i) The Company will not, without the prior written consent of the Representative, from the date of execution of this Agreement and continuing to and including the date 90 days after the date of the Final Prospectuses (the **"Lock-Up Period"**), (A) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, any Common Shares or any securities convertible into or exercisable or exchangeable for Common Shares or (B) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Shares, whether any such transaction described in clause (A) or (B) above is to be settled by delivery of Common Shares or such other securities, in cash or otherwise, except for (A) sales of the Securities to the Underwriters pursuant to this Agreement, (B) grants of options or the issuance of Common Shares by the Company pursuant to equity incentive plans described in the Time of Sale Disclosure Package, or (C) issuance of shares upon exercise or conversion of securities outstanding as of the date hereof. The Company agrees not to accelerate the vesting of any option or warrant or the lapse of any repurchase right prior to the expiration of the Lock Up Period. If (1) during the last 17 days of the Lock-Up Period, (a) the Company issues an earnings release, (b) the Company publicly announces material news or (c) a material event relating to the Company occurs; or (2) prior to the expiration of the Lock-Up Period, the Company announces that it will release earnings results during the 16-day period beginning on the last day of the Lock-Up Period, then the restrictions in this Agreement, unless otherwise waived by the Representative in writing, shall continue to apply until the expiration of the date that is 18 calendar days after the date on which (a) the Company issues the earnings release, (b) the Company publicly announces material news or (c) a material event relating to the Company occurs; provided, however, that this sentence shall not apply if the research published or distributed on the Company is .compliant under Rule 139 of the Securities Act, and the Company's securities are actively traded as defined in Rule IO 1(c)(1) of Regulation M of the Exchange Act. The Company will provide the Representative and each person subject to the Lock-Up Agreement (as defined below) with prior notice of any such announcement that gives rise to the extension of the Lock-Up Period.

j) The Company has caused to be delivered to the Representative prior to the date of this Agreement a letter, in the form of Exhibit A hereto (the **"Lock-Up Agreement"**), from each of the Company's directors and officers identified on Schedule IV. If requested by the Representative, the Company will issue stop-transfer instructions to the transfer agent for the Common Shares with respect to any transaction or contemplated transaction that would constitute a breach of or default under the applicable Lock-Up Agreement.

(k) Other than in connection with any road show or other marketing of the offering of Securities, the Company has not taken and will not take, directly or indirectly, any action designed to or which might reasonably be expected to cause or result in, or which has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities, and has not effected any sales of Common Shares which would be required to be disclosed in response to

Item 701 of Regulation S-K under the Securities Act if applicable to the Company which have not been so disclosed in the Registration Statement.

(l) Other than as contemplated by this Agreement, the Company will not incur any liability for any finder's or broker's fee or agent's commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

(m) During the Prospectus Delivery Period, the Company will file with the Commission such periodic and special reports as required by the Rules and Regulations and with the Canadian securities regulatory authorities such continuous disclosure documents as required by Canadian Securities Laws.

(n) The Company will maintain such controls and other procedures, including without limitation those required by Sections 302 and 906 of the Sarbanes-Oxley Act and the applicable regulations thereunder, that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act and under Canadian Securities Laws is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms and applicable Canadian Securities Laws, including without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive officer and its principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure, to ensure that material information relating to the Company is made known to them by others within those entities.

(o) The Company will comply with all applicable provisions of the Sarbanes-Oxley Act.

(p) The Company represents and agrees that, unless it obtains or obtained the prior written consent of the Representative, it has not made and will not make any offer relating to the Securities that would constitute an "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405 under the Securities Act, required to be filed with the Commission; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the free writing prospectuses included in Schedule II. Any such free writing prospectus consented to by the Company and the Representative is hereinafter referred to as a ***"Permitted Free Writing Prospectus."*** The Company represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record keeping. The Underwriters represent and agree that, unless they obtain or obtained the prior written consent of the Company, they have not made and will not make any offer relating to the Securities that would constitute an "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405 under the Securities Act, required to be filed with the Commission.

(q) Following completion of the Company's fiscal year ending December 31, 2013, the Company shall make a determination as to whether it was a "passive foreign investment company" within the meaning of Section 1297(a) of the Code, for the preceding fiscal year, including any qualifications, and the Company shall promptly report such determination in the next filing of an annual report with the SEC. If the Company has determined that it was a "passive foreign investment company" during such fiscal year, if requested by a shareholder, the Company shall provide such shareholder with

the necessary information to make a "qualified electing fund" election as defined under the Code; provided, however, that nothing in this Section 4(q) shall be interpreted as an undertaking to not qualify as a "passive foreign investment company."

5. Conditions of Underwriters' Obligations. The obligations of the several Underwriters hereunder are subject to the accuracy, as of the date hereof and at each of the First Closing Date and the Second Closing Date (as if made at such closing date), of and compliance with all representations, warranties and agreements of the Company contained herein, to the performance by the Company of its obligations hereunder and to the following additional conditions:

(a) The Company is relying upon the rules and procedures established pursuant to the Canadian Shelf Procedures. The Canadian Preliminary Base Prospectus and the Canadian Base Prospectus have been filed with the Qualifying Authorities and a Passport Decision Document has been issued by the Reviewing Authority in its capacity as principal regulator under the Passport System on its own behalf and on behalf of the other Qualifying Authorities relating to the Canadian Preliminary Base Prospectus and the Canadian Base Prospectus, respectively, and has not been revoked. The Canadian Final Prospectus Supplement shall have been filed with the Qualifying Authorities within the applicable time period prescribed hereby and in accordance with the Canadian Shelf Procedures; all other steps or proceedings shall have been taken that may be necessary in order to qualify the Securities for distribution to the public in each of the Qualifying Jurisdictions; and no order suspending the distribution of the Securities shall have been issued by any of the Qualifying Authorities and no proceedings for that purpose shall have been instituted or threatened, and any request on the part of any Qualifying Authority for additional information shall have been complied with to the reasonable satisfaction of counsel to the Underwriters.

(b) The Company shall have filed the U.S. Final Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus required to be filed under the Securities Act or the Rules and Regulations with the Commission in accordance with General Instruction **II.L** of Form F-10 or as otherwise required and within the time period so required; the Registration Statement shall remain effective; no stop order suspending the effectiveness of the Registration Statement or any part thereof, any Upsizing Registration Statement, or any amendment thereof, nor suspending or preventing the use of the Time of Sale Disclosure Package, the U.S. Final Prospectus or any Issuer Free Writing Prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or threatened; and any request of the Commission for additional information (to be included in the Registration Statement, the Time of Sale Disclosure Package, the U.S. Final Prospectus, any Issuer Free Writing Prospectus or otherwise) shall have been complied with to the satisfaction of the Representative.

(c) The Representative shall not have reasonably determined and advised the Company that (i) the Registration Statement or any amendment thereof or supplement thereto, or the Canadian Final Prospectus, contains an untrue statement of a material fact which, in the opinion of counsel to the Underwriters, is material or omits to state a material fact which, in the opinion of counsel to the Underwriters, is required to be stated therein or necessary to make the statements therein not misleading, or (ii) the Time of Sale Disclosure Package or the Final Prospectuses, or any amendment thereof or supplement thereto, or any Issuer Free Writing Prospectus contains an untrue statement of fact which, in the opinion of counsel to the Underwriters, is material, or omits to state a fact which, in the opinion of counsel to the Underwriters, is material and is required to be stated therein, or necessary to make the statements therein, in the light of the circumstances under which they are made, not misleading.

(d) Except as contemplated in the Time of Sale Disclosure Package and in the Final Prospectuses, subsequent to the respective dates as of which information is given in the Time of Sale Disclosure Package, the Company shall not have incurred any material liabilities or obligations, direct or

contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock; and there shall not have been any change in the capital stock (other than a change in the number of outstanding Common Shares due to the issuance of shares upon the exercise of outstanding options or warrants), or any material change in the short-term or long-term debt of the Company, or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock of the Company, or any Material Adverse Change or any development reasonably likely to result in a Material Adverse Change (whether or not arising in the ordinary course of business), that, in the judgment of the Representative, makes it impractical or inadvisable to offer or deliver the Securities on the terms and in the manner contemplated in the Time of Sale Disclosure Package and in the Prospectus.

(e) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriters, the opinion of Farris, Vaughan, Wills & Murphy LLP, Canadian counsel for the Company, dated such closing date and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

(f) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriters, the opinion of Dorsey & Whitney LLP, U.S. counsel for the Company, dated such closing date and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

(g) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriters, the opinion of Viksnins, Harris & Padys PLLP, intellectual property counsel for the Company, dated such closing date and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

(h) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriters, the opinion of Kilpatrick Townsend & Stockton LLP, intellectual property counsel for the Company, dated such closing date and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

(i) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriters, the negative assurance letter of Goodwin Procter LLP, counsel for the Underwriters, dated such closing date and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

(j) On the date of this Agreement, the First Closing Date and the Second Closing Date, as the case may be, the Underwriters shall have received a letter of KPMG LLP, dated such date and addressed to the Representative, confirming that they are independent public accountants within the meaning of the Securities Act, are in compliance with the applicable requirements relating to the qualifications of accountants under Rule 2-01 of Regulation S-X of the Commission, are in good standing with the Canadian Public Accountability Board and stating, as of the date of such letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Time of Sale Disclosure Package, as of a date not prior to the date hereof or more than five days prior to the date of such letter), the conclusions and findings of said firm with respect to the financial information and other matters covered by its letter delivered to the Underwriters concurrently with the execution of this Agreement, and the effect of the letter so to be delivered on the First Closing Date and the Second Closing Date, as the case may be, shall be to confirm the conclusions and findings set forth in such prior letter.

(k) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriters, a certificate, dated such closing date and addressed to the Representative, signed by the chief executive officer and by the chief financial officer of the Company, to the effect that:

(i) The representations and warranties of the Company in this Agreement are true and correct, as if made at and as of such closing date, and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to such closing date;

(ii) No stop order, cease trade order or other order suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof or the qualification of the Securities for offering or sale under Canadian Securities Laws, nor suspending or preventing the use of the Time of Sale Disclosure Package, the Final Prospectuses or any Issuer Free Writing Prospectus, has been issued, and no proceeding for that purpose has been instituted or, to their knowledge, is contemplated or threatened by the Commission, any Qualifying Authority or any state, provincial or regulatory body; and

(iii) The signers of said certificate have carefully examined the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, and any amendments thereof or supplements thereto, and

(A) the Registration Statement, or any amendment thereof, does not contain and did not contain when such part of the Registration Statement, or any amendment thereof, became effective, any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, except that such statement shall not apply to statements in or omissions from the Registration Statement, or any amendment thereof, based upon and in conformity with written information furnished to the Company by the Representative specifically for use therein, and the Final Prospectuses, as amended or supplemented, does not include and did not include as of its date or the time of first use within the meaning of the Rules and Regulations, any untrue statement of material fact or omit to state and did not omit to state as of its date or the time of first use within the meaning of the Rules and Regulations a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, except that such statement shall not apply to statements in or omissions from the Final Prospectuses, as amended or supplemented, based upon and in conformity with written information furnished to the Company by the Representative specifically for use therein,

(B) At the time of filing thereof with the Qualifying Authorities and at the First Closing Date and the Second Closing Date, the Canadian Preliminary Prospectus and the Canadian Final Prospectus (and any further amendments or supplements thereto, including any Supplementary Material) constituted and will constitute full, true and plain disclosure of all material facts relating to the Securities and the Company and its Subsidiaries, taken as a whole, and did not and will not contain a misrepresentation, as defined under Canadian Securities Laws, and did not and will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(C) neither (1) the Time of Sale Disclosure Package nor (2) any individual Issuer Limited-Use Free Writing Prospectus, when considered together with the Time of Sale Disclosure Package, include, nor included as of the Time of Sale any untrue statement of a material fact or omits, or omitted as of the Time of Sale, to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, except that such statement shall not apply to statements in or omissions from the Time of Sale Disclosure Package or any Individual Limited-Use Free Writing Prospectus based upon and in conformity with written information furnished to the Company by the Representative specifically for use therein,

(D) since the Time of Sale there has occurred no event required to be set forth in an amended or supplemented prospectus which has not been so set forth,

(E) subsequent to the respective dates as of which information is given in the Registration Statement, the Time of Sale Disclosure Package and Final Prospectuses, the Company has not incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, not in the ordinary course of business, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock, and except as disclosed in the Time of Sale Disclosure Package and in the Final Prospectuses, there has not been any change in the share capital (other than a change in the number of outstanding Common Shares due to the issuance of shares upon the exercise of outstanding options or warrants), or any material change in the short term or long term debt, or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock, of the Company (other than issuances of options under the Company's existing stock option plans) or any Material Adverse Change or any development involving a prospective Material Adverse Change (whether or not arising in the ordinary course of business), and

(F) except as stated in the Registration Statement, the Time of Sale Disclosure Package and in the Final Prospectuses, there is not pending, or, to the knowledge of the Company, threatened or contemplated, any action, suit or proceeding to which the Company is a party before or by any court or governmental agency, authority or body, or any arbitrator, which could reasonably be expected to result in any Material Adverse Change.

(l) The Underwriters shall have received all the Lock-Up Agreements referenced in Section 4CD.

(m) At the First Closing Date, the Securities shall have been duly listed for quotation or trading on the NASDAQ and the TSX (subject only to customary post-closing document delivery requirements).

(n) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriters, a certificate, dated such closing date and addressed to the Representative, signed by the chief financial officer of the Company.

(o) The Underwriters shall have received on the First Closing Date a certificate of the secretary of the Company.

(p) The Underwriters shall not have received any unresolved objection from FINRA as to the fairness and reasonableness of the amount of compensation allowable or payable to the Underwriters in connection with the issuance and sale of the Securities.

Prior to the First Closing Date and the Second Closing Date, if applicable, the Underwriters shall have received such further certificates and documentation from the Company as may be contemplated herein as the Representative or counsel to the Underwriters may reasonably request; provided, however, that the Representative or counsel to the Underwriters shall request any such certificates or other documents within a reasonable period prior to the First Closing Date or Second Closing Date, as applicable, that is sufficient for the Company to obtain and deliver such certificates or documents, and in any event, at least two (2) Business Days prior to the First Closing Date or Second Closing Date, as applicable. The Company will furnish the Underwriters with such conformed copies of such opinions, certificates, letters and other documents as the Representative shall reasonably request.

6. Indemnification and Contribution.

(a) The Company agrees to indemnify and hold harmless the several Underwriters, their affiliates, directors and officers and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities, joint or several, to which the Underwriters may become subject, under the Securities Act, Canadian Securities Laws or otherwise (including in settlement of any litigation if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including any information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to the Rules and Regulations, if applicable, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses, or any amendment or supplement thereto, any Issuer Free Writing Prospectus or in any materials or information provided to investors by, at the instruction of, the Company in connection with the marketing of the offering of the Common Shares ***("Marketing Materials "),*** including any roadshow or investor presentations made to investors by the Company (whether in person or electronically), or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, with respect only to any Preliminary Prospectus, the Time of Sale Disclosure Package, the Final Prospectuses, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus or Marketing Materials, in light of the circumstances under which they were made, not misleading, and will reimburse the Underwriters for any legal or other expenses reasonably incurred by them in connection with investigating or defending against such Joss, claim, damage, liability or action as such expenses are incurred; *provided, however,* that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, liability or action arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses, or any such amendment or supplement, any Issuer Free Writing Prospectus or in any Marketing Materials, in reliance upon and in conformity with information provided in writing to the Company by the Representative specifically for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 6(f). To the extent that any reimbursement payment is so held to have been improper, the Underwriter that received such payment shall promptly return it to the party or parties that made such payment.

(b) Each Underwriter, severally and not jointly, will indemnify and hold harmless the Company, its affiliates, directors and officers and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act, from and

against any losses, claims, damages or liabilities to which the Company may become subject, under the Securities Act, Canadian Securities Laws or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses, or any such amendment or supplement, or any Issuer Free Writing Prospectus in reliance upon and in conformity with information provided in writing to the Company by the Representative specifically for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 6(f), and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending against any such loss, claim, damage, liability or action as such expenses are incurred.

(c) Promptly after receipt by an indemnified party under Section 6(a) or 6(b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure. In case any such action shall be brought against any indemnified party, and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation; provided, however, that if, in the judgment of counsel to the Underwriters, it is advisable for the Underwriters to be represented by separate counsel, the Underwriters shall collectively have the right to employ a single counsel (in addition to local counsel) to represent the Underwriters who may be subject to liability arising from any claim in respect of which indemnity may be sought by the Underwriters under subsection (a) of this Section 6, in which event the reasonable fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the Underwriters as incurred. An indemnifying party shall not be obligated under any settlement agreement relating to any action under this Section 6 to which it has not agreed in writing. In addition, no indemnifying party shall, without the prior written consent of the indemnified party (which consent shall not be unreasonably withheld or delayed), effect any settlement of any pending or threatened proceeding unless such settlement includes an unconditional release of such indemnified party for all liability on claims that are the subject matter of such proceeding and does not include a statement as to, or an admission of, fault, culpability or a failure to act by or on behalf of an indemnified party.

(d) If the indemnification provided for in this Section 6 is unavailable or insufficient to hold harmless an indemnified party under Section 6(a) or 6(b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in Section 6(a) or 6(b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other

from the offering of the Securities or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriter, in each case as set forth in the table on the cover page of the U.S. Final Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters and the parties' relevant intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 6(d) were to be determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the first sentence of this Section 6(d). The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this Section 6(d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending against any action or claim which is the subject of this Section 6(d). Notwithstanding the provisions of this Section 6(d), the Underwriters shall not be required to contribute any amount in excess of the amount by which the total price at which the Securities underwritten by them and distributed to the public were offered to the public exceeds the amount of any damages that the Underwriters have otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section l l (f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this Section 6(d) to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) The obligations of the Company under this Section 6 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to each person, if any, who controls any Underwriter within the meaning of the Securities Act; and the obligations of the Underwriters under this Section 6 shall be in addition to any liability that the Underwriters may otherwise have and shall extend, upon the same terms and conditions, to each director of the Company (including any person who, with his consent, is named in the Registration Statement as about to become a director of the Company), to each officer of the Company who has signed the Registration Statement and to each person, if any, who controls the Company within the meaning of the Securities Act.

(f) The Underwriters confirm and the Company acknowledges that the statements with respect to the public offering of the Securities by the Underwriters set forth in the first paragraph under the caption "**Underwriting - Commissions and Discounts**", the paragraph under the caption "**Underwriting - Passive Market Making**" and the paragraphs under the caption "Underwriting - Short Sales, Stabilizing Transactions and Penalty Bids" in the Time of Sale Disclosure Package and in the Final Prospectuses are correct and constitute the only information concerning such Underwriters furnished in writing to the Company by the Representative specifically for use in the Registration Statement, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses or any Issuer Free Writing Prospectus.

7. ***Representations and Agreements to Survive Delivery***. All representations, warranties, and agreements of the Company herein or in certificates delivered pursuant hereto, including but not limited to the agreements of the Underwriters and the Company contained in Section 6 hereof, shall

remain operative and in full force and effect regardless of any investigation made by or on behalf of the Underwriters or any controlling person thereof, or the Company or any of its officers, directors, or controlling persons, or any controlling person thereof, and shall survive delivery of, and payment for, the Securities to and by the Underwriters hereunder.

8. Termination of this Agreement.

(a) The Representative shall have the right to terminate this Agreement by giving notice to the Company as hereinafter specified at any time at or prior to the First Closing Date, and the option referred to in Section 3(b), if exercised, may be cancelled at any time prior to the Second Closing Date, if (i) the Company shall have failed, refused or been unable, at or prior to such closing date, to perform any agreement on its part to be performed hereunder, (ii) any other condition of the Underwriters' obligations hereunder is not fulfilled, (iii) trading on the NASDAQ or TSX, shall have been suspended, (iv) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the NASDAQ or TSX, by such Exchange or by order of the Commission or any other Governmental Authority having jurisdiction, (v) a banking moratorium shall have been declared by U.S. federal, Canadian federal or state authorities, or (vi) there shall have occurred any outbreak or escalation of hostilities, any change in financial markets or any calamity or crisis that, in the Representative's judgment, is material and adverse and makes it impractical or inadvisable to proceed with the completion of the sale of and payment for the Securities. Any such termination shall be without liability of any party to any other party except that the provisions of Section 4(g) and Section 6 hereof shall at all times be effective and shall survive such termination.

(b) If the Representative elects to terminate this Agreement as provided in this Section 8, the Company shall be notified promptly by the Representative by telephone, confirmed by letter.

9. Default by the Company

(a) If the Company shall fail at the First Closing Date to sell and deliver the number of Securities which it is obligated to sell hereunder, then this Agreement shall terminate without any liability on the part of the Underwriters or, except as provided in Section 4(g) and Section 6 hereof, any non-defaulting party. No action taken pursuant to this Section 9 shall relieve the Company from liability, if any, in respect of such default.

(b) If any Underwriter shall fail at the First Closing Date to purchase and pay for the portion of the Securities which such Underwriter has agreed to purchase and pay for on such date (otherwise than by reason of any default on the part of the Company), the Representative shall use its reasonable efforts to procure within 36 hours thereafter one or more of the other Underwriters, or any others, to purchase from the Company such amounts as may be agreed upon and upon the terms set forth herein, the Securities which the defaulting Underwriter or Underwriters failed to purchase. If during such 36 hours the Representative shall not have procured such other Underwriters, or any others, to purchase the Securities agreed to be purchased by the defaulting Underwriter or Underwriters, then (i) if the aggregate number of shares with respect to which such default shall occur does not exceed 10% of the Securities to be purchased on the First Closing Date, the other Underwriters shall be obligated, severally, in proportion to the respective numbers of Securities which they are obligated to purchase hereunder, to purchase the Securities which such defaulting Underwriter or Underwriters failed to purchase, or (ii) if the aggregate number of shares with respect to which such default shall occur exceeds 10% of the Securities to be purchased on the First Closing Date, the Company or the Representative will have the right, by written notice given within the next 36-hour period to the parties to this Agreement, to terminate this Agreement without liability on the part of the non-defaulting Underwriters or of the Company except

to the extent provided in Sections 4(g) and §. hereof; provided, however, upon any such termination as set forth in this Section 9(b), the Company shall not be required to pay the expenses of the Underwriters as described in Section 4(g) above. In the event of a default by any Underwriter or Underwriters, as set forth in this Section 9(b), the First Closing Date may be postponed for such period, not exceeding seven days, as the Representative may determine in order that the required changes in the Registration Statement, the Time of Sale Disclosure Package or in the Final Prospectuses or in any other documents or arrangements may be effected. The term *"Underwriter"* includes any person substituted for a defaulting Underwriter. No action taken under this Section 9 shall relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

10. Notices. Except as otherwise provided herein, all communications hereunder shall be in writing and, if to the Underwriters, shall be mailed or delivered c/o Stifel, Nicolaus & Company, Incorporated, One Montgomery Street, Suite 3700, San Francisco, California 94104, Attention: General Counsel; and if to the Company, shall be mailed or delivered to the address of the Company set forth in the Registration Statement, Attention: Secretary. Any such communications shall take effect upon receipt thereof. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

11. Agent for Service; Submission to Jurisdiction; Waiver of Immunities. By the execution and delivery of this Agreement, the Company (a) acknowledges that it has, by separate written instrument, irrevocably designated and appointed National Registered Agents, Inc. (or any successor) (together with any successor, the ***"Agent for Service"),*** as its authorized agent upon which process may be served in any suit or proceeding arising out of or relating to this Agreement or the Securities, that may be instituted in any U.S. federal or state court in the State of New York, or brought under federal or state securities laws, and acknowledges that the Agent for Service has accepted such designation, (b) submits to the jurisdiction of any New York state or U.S. federal court located in the Borough of Manhattan, the City of New York, New York, in any suit or proceeding arising out of or related to this Agreement, and

(c) agrees that service of process upon the Agent for Service (or any successor) and written notice of said service to the Company (mailed or delivered to National Registered Agents, Inc. at 1780 Barnes Blvd. S.W., Bldg. G, Tumwater, Washington 98512-0410), shall be deemed in every respect effective service of process upon the Company in any such suit or proceeding. The Company further agrees to take any and al l action, including the execution and filing of any and al l such documents and instruments, as may be necessary to continue such designation and appointment of the Agent for Service in full force and effect so long as any of the Securities shall be outstanding. To the extent that the Company has or hereafter may acquire any immunity from jurisdiction of any court or from any legal process (whether through service of notice, attachment prior to judgment, attachment in aid of execution, execution or otherwise) with respect to itself or its property, it hereby irrevocably waives such immunity in respect of its obligations under the above-referenced documents, to the extent permitted by law.

12. Persons Entitled to Benefit of Agreement. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 6. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term "successors and assigns" as herein used shall not include any purchaser, as such purchaser, of any of the Securities from the Underwriters.

13. Absence of Fiduciary Relations/tip. The Company acknowledges and agrees that: (a) the Underwriters have been retained solely to act as underwriters in connection with the sale of the Securities and that no fiduciary, advisory or agency relationship between the Company and the Underwriters has been created in respect of any of the transactions contemplated by this Agreement,

irrespective of whether the Underwriters have advised or are advising the Company on other matters; (b) the price and other terms of the Securities set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Underwriters and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Underwriters and their affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Underwriters have no obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; (d) it has been advised that the Underwriters are acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of the Representative and the other Underwriters, and not on behalf of the Company; (e) it waives to the fullest extent permitted by law, any claims it may have against the Underwriters for breach of fiduciary duty or alleged breach of fiduciary duty in respect of any of the transactions contemplated by this Agreement and agrees that the Underwriters shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

14. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to principles of conflict of laws.

15. Counterparts. This Agreement may be executed in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument.

16. General Provisions. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

[Signature Page Follows]

If the foregoing is in accordance with your understanding, please sign and return to us one original for the Company plus one original for counsel of any counterparties hereof, and upon the acceptance hereof by the Underwriters, this Agreement and such acceptance hereof shall constitute a binding agreement between the Underwriters and the Company.

Very truly yours,

TEKMIRA PHARMACEUTICALS CORPORATION

By: *"Mark J. Murray"*
Name: Mark J. Murray
Title: President and Chief Executive Officer

Accepted as of the date hereof at San Francisco, California: STIFEL, NICOLAUS & COMPANY, INCORPORATED

By: *"Seth Rubin"*
Name: Seth Rubin
Title: Managing Director

For itself and as Representative of the
other Underwriters named in Schedule I hereto

SCHEDULE I

Underwriter	Number of Firm Shares to be Purchased< 1l
Stifel, Nicolaus & Company, Incorporated	2,625,000
Maxim Group LLC	1,125,000
Total:	**3,750,000**

_____

(1) The Underwriters may purchase up to an additional 562,500 Option Shares, to the extent the option described in Section 3(b) of the Agreement is exercised, in the proportions and in the manner described in the Agreement.

SCHEDULE II

Issuer General Free Writing Prospectuses

None.

SCHEDULE III

Pricing Information

Number of Firm Shares to be Issued: 3,750,000

Offering Price: US$8.00 per share

Underwriting Discounts and Commissions: 6.0%

Number of Option Shares: 562,500

SCHEDULE IV

Officers and Directors Subject to Lockup

Bruce Cousins
Mark J. Murray
Mark Kowalski
Michael Abrams
Kenneth Galbraith
Don Jewell
Frank Karbe
Daniel Kisner
Ian C. Mortimer
Ian MacLachlan
Peter Lutwyche
Paul A. Brennan

EXHIBIT A

Form of Lockup Agreement

October _, 2013

Stifel, Nicolaus & Company, Incorporated
As Representative of the Several Underwriters
One Montgomery Street
Suite 3700
San Francisco, California 94104

Re: Offering of Common Shares of Tekmira Pharmaceuticals Corporation Ladies and Gentlemen:

The undersigned understands that you, as representative of the underwriters (the ***"Underwriters"),*** propose to enter into an Underwriting Agreement with Tekmira Pharmaceuticals Corporation, a British Columbia corporation (the a Registration Statement on Form F-10 filed with the Securities and Exchange Commission (the ***"SEC").***

In consideration of the agreement by the Underwriters to offer and sell the Shares, and of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned agrees that, during the period specified in the following paragraph (the ***"Lock-Up Period"),*** the undersigned will not offer, sell, contract to sell, pledge (except a pledge for the benefit of the Company pursuant to an agreement entered or to be entered into between the Company and the undersigned), grant any option to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, any Common Shares of the Company, or any options or warrants to purchase any Common Shares of the Company, or any securities convertible into, exchangeable for or that represent the right to receive Common Shares of the Company, whether now owned or hereafter acquired, owned directly by the undersigned (including holding as a custodian) or with respect to which the undersigned has beneficial ownership within the rules and regulations of the SEC (collectively the *"Undersigned's Shares");* provided, however, that during the Lock-Up Period, the undersigned shall be permitted to exercise any options or warrants to purchase common shares of the Company that the undersigned owns directly (including holding as a custodian) or with respect to which the undersigned has beneficial ownership within the rules and regulations of the SEC (the ***"Convertible Securities"),*** provided that any such shares issued upon exercise of such Convertible Securities shall continue to be subject to the applicable provisions of this Lock-Up Agreement. The foregoing restriction is expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned's Shares even if such Undersigned's Shares would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Undersigned's Shares or with respect to any security that includes, relates to, or derives any significant part of its value from such Undersigned's Shares (regardless of whether any of the transactions described herein is to be settled by delivery of Common Shares of the Company, or such other securities, in cash or otherwise). Further, the undersigned agrees not to make any demand for, or exercise any right with

respect to, the registration of any Common Shares of the Company or securities convertible into or exercisable or exchangeable for Common Shares of the Company during the Lock-Up Period.

The initial Lock-Up Period will commence on the date of this Lock-Up Agreement and continue for 90 days after the offering date set forth on the final prospectus used to sell the Shares (the "**Offering Date** ") pursuant to the Underwriting Agreement; provided, however, that if (1) during the last 17 days of the initial Lock-Up Period, the Company releases earnings results or announces material news or a material event or (2) prior to the expiration of the initial Lock-Up Period, the Company announces that it will release earnings results during the 15-day period following the last day of the initial Lock-Up Period, then in each case the Lock-Up Period will be automatically extended until the expiration of the 18-day period beginning on the date of release of the earnings results or the announcement of the material news or material event, as applicable, unless Stifel, Nicolaus & Company, Incorporated waives, in writing, such extension.

The undersigned hereby acknowledges that the Company intends to agree in the Underwriting Agreement to provide written notice of any event that would result in an extension of the Lock-Up Period pursuant to the previous paragraph to the undersigned and agrees that any such notice properly delivered will be deemed to have been given to, and received by, the undersigned. The undersigned hereby further agrees that, prior to engaging in any transaction or taking any other action that is subject to the terms of this Lock-Up Agreement during the period from the date of this Lock-Up Agreement to and including the 34th day following the expiration of the initial Lock-Up Period, it will give notice thereof to the Company and will not consummate such transaction or take any such action unless it has received written confirmation from the Company that the Lock-Up Period (as such may have been extended pursuant to the previous paragraph) has expired.

Notwithstanding the foregoing, the undersigned may transfer the Undersigned's Shares (i) pursuant to a bonafide take-over bid made to all holders of common shares of the Company or similar acquisition transaction provided that in the event that the take-over or acquisition transaction is not completed, any securities shall remain subject to the restrictions contained in this Lock-Up Agreement; (ii) as a bonafide gift or gifts, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein, (iii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, or (iv) with the prior written consent of Stifel, Nicolaus & Company, Incorporated. For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin. The undersigned now has, and, except as contemplated by clause (i), (ii), (iii) or (iv) above, for the duration of this Lock-Up Agreement will have, good and marketable title to the Undersigned's Shares, free and clear of all liens, encumbrances and claims whatsoever. The undersigned agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Undersigned's Shares except in compliance with the foregoing restrictions.

The undersigned understands that the Company and the Underwriters are relying upon this Lock-Up Agreement in proceeding toward consummation of the offering. The undersigned hereby represents and warrants that it has full power and authority to enter into this Lock-Up Agreement and that upon request, the undersigned will execute any additional documents reasonably necessary or desirable in connection with the enforcement hereof. The undersigned further understands that this Lock-Up Agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representatives, successors, and assigns.

This Lock-Up Agreement shall lapse and become null and void upon notice from the Company to the Underwriters that the Company does not intend to proceed with the offering or wishes to terminate the engagement of the Underwriters as underwriters of the offering.

Very truly yours,

_____
Exact Name of Shareholder

_____
Authorized Signature

_____
Title

Exhibit 10.77

Execution Version

2,125,000 Common Shares

TEKMIRA PHARMACEUTICALS CORPORATION

(incorporated under the Business Corporations Act *(British Columbia))*

UNDERWRITING AGREEMENT

March 12, 2014

LEERINK PARTNERS LLC
201 Spear Street, Suite 1620
San Francisco, California 94105

Ladies and Gentlemen:

Tekmira Pharmaceuticals Corporation, a company incorporated under the Business Corporations Act *(British Columbia)* (the ***"Company'),*** proposes to sell to Leerink Partners LLC (the *1'**Underwriter**"),* an aggregate of 2,125,000 common shares (the ***"FirmShares")*** of the Company (the ***"Common Shares")***. The Company has also granted to the Underwriter an option to purchase up to an aggregate of 318,750 additional C purchased pursuant to this Underwriting Agreement are herein collectively called the ***"Securities."***

The Company hereby confirms its agreement with respect to the sale of the Securities to the Underwriter.

l. ***Registration Statement and Prospectus***. The Company has prepared and filed with the securities regulatory authorities (the ***"Qualifying Authorities ")*** in each of the provinces of Canada other than the Province of Quebec (the ***"Canadian Jurisdictions")*** a preliminary short form base shelf prospectus dated February 21, 2014 (the ***"Canadian Preliminary Base Prospectus "),*** and the Canadian Base Prospectus (as defined below), in respect of an aggregate of up to US$1 50,000,000 in certain securities of the Company, including Common Shares (collectively, the *"Shelf Securities")*. The Company has selected the British Columbia Securities Commission (the ***"Reviewing Authority ")*** as its principal regulator under the passport system procedures provided for under Multilateral Instrument 11-102 - Passport System and National Policy 11-202 - Process for Prospectus Reviews in Multiple Jurisdictions (collectively, the *"Passport System")* in respect of the offering of the Shelf Securities. The Reviewing Authority has issued a receipt, which is deemed to also be a receipt of the other Canadian Securities Commissions and evidence of the receipt of the Ontario Securities Commission pursuant to the Passport System (a ***"Passport Decision Document'***), for each of the Canadian Preliminary Base Prospectus and the Canadian Base Prospectus. The term ***"Canadian Base Prospectus "*** means the final short form base shelf prospectus dated February 28, 2014 relating to the Shelf Securities, including any documents incorporated by reference therein and the documents otherwise deemed to be incorporated by reference therein pursuant to Canadian Securities Laws (as defined below), at the time the Reviewing Authority issued a Passport Decision Document with respect thereto in accordance with Canadian Securities Laws, including National Instrument 44-10 I - *Short Form Prospectus Distributions* and National Instrument 44-102 - *Shelf Distributions* (together, the ***"Canadian Shelf Procedures")***. The Company has also prepared and filed with the Qualifying Authorities in accordance with the Canadian Shelf Procedures a preliminary prospectus supplement dated March 10, 2014 relating to the Securities, which excluded certain information (together with the Canadian Base Prospectus, and including any

documents incorporated therein by reference and the documents otherwise deemed to be incorporated by reference therein pursuant to Canadian Securities Laws, the ***"Canadian Preliminary Prospectus ")***.

The Company has also prepared and filed with the United States Securities and Exchange Commission (the ***"Commission")*** a registration statement on Form F-10 (File No. 333-194068) covering the registration of the Shelf Securities under the United States Securities Act of 1933, as amended (the ***"Securities Act"*** or ***"Act')*** and the rules and regulations (the ***"Rules and Regulations ")*** of the Commission thereunder, and such amendments to such registration statement as may have been permitted or required to the date of this Agreement. Such registration statement, including the Canadian Base Prospectus (with such deletions therefrom and additions thereto as are permitted or required by Form F-10 and the Rules and Regulations) and including exhibits to such registration statement has become effective in such form pursuant to Rule 467(b) under the Securities Act. Such registration statement, at any given time, including amendments thereto to such time, the exhibits and any schedules thereto at such time and the documents incorporated by reference therein pursuant to Item 4 of Form F-10 under the Securities Act at such time, is herein called the ***"Registration Statement."*** The Registration Statement at the time it originally became effective is herein called the ***"Original Registration Statement."*** Any registration statement filed by the Company pursuant to General Instruction Il.E of Form F-10 under the Securities Act is called the ***"Upsizing Registration Statement'*** and, from and after the date and time of filing of the Upsizing Registration Statement, the term ***"Registration Statement'*** shall include the Upsizing Registration Statement. The prospectus in the form in which it appeared in the Original Registration Statement is herein called the ***"U.S. Base Prospectus."*** The preliminary prospectus supplement dated March 10, 2014 relating to the offering of the Securities, including all documents incorporated therein by reference, filed with the Commission pursuant to General Instruction 11.L of Form F-10 under the Securities Act, together with the U.S. Base Prospectus, is hereinafter called a ***"U.S. Preliminary Prospectus."***

In addition, the Company (i) shall prepare and file with the Reviewing Authority in accordance with Section 4(a) hereof a final prospectus supplement (the ***"Canadian Final Prospectus Supplement ')*** to the Canadian Base Prospectus relating to the Securities, which includes the information omitted from the Canadian Preliminary Prospectus and otherwise supersedes the Canadian Preliminary Prospectus in its entirety (together with the Canadian Base Prospectus, and including any documents incorporated therein by reference and the documents otherwise deemed to be a part thereof or included therein pursuant to Canadian Securities Laws, the ***"Canadian Final Prospectus "),*** and (ii) shall prepare and file with the Commission pursuant to General Instruction II.L of Form F -10 and in accordance with Section 4(a) hereof a final prospectus supplement (the ***"U.S. Final Prospectus Supplement")*** to the U.S. Base Prospectus relating to the offering of the Securities (including all documents incorporated therein by reference, together with the U.S. Base Prospectus, the ***"U.S. Final Prospectus ").*** The U.S. Preliminary Prospectus and the Canadian Preliminary Prospectus are referred to herein as the ***"Preliminary Prospectuses,"*** and the U.S. Final Prospectus and the Canadian Final Prospectus are referred to herein as the ***"Final Prospectuses."*** Any amendment to the Canadian Final Prospectus, any amended or supplemental prospectus, any management information circular, financial statement, management's discussion and analysis, annual information form, business acquisition report or material change report that may be filed by or on behalf of the Company under the securities laws of the Canadian Jurisdictions prior to the expiry of the period of distribution of the Securities, where such document is deemed to be incorporated by reference into the Canadian Final Prospectus, is referred to herein collectively as the ***"Supplementary Material."*** Any reference herein to any "amendment" or "supplement" to the U.S. Preliminary Prospectus or the U.S. Final Prospectus shall be deemed to refer to and include (i) the filing of any document with the Reviewing Authority or the Commission after the date of the U.S. Preliminary Prospectus or the U.S. Final Prospectus, as the case may be, and prior to the First Closing Date or the Second Closing Date, as applicable, which is incorporated therein by reference or is otherwise deemed to

be a part thereof or included therein by the Rules and Regulations and (ii) any such document so filed prior to the First Closing Date or the Second Closing Date, as applicable.

The Underwriter shall offer the Securities for sale to the public directly and through other investment dealers and brokers in the United States of America (the ***"United States")*** only as permitted by applicable law and upon the terms and conditions set forth in the Final Prospectuses and this Agreement. It is acknowledged and agreed that the Canadian Final Prospectus Supplement shall not contemplate making sales of any Securities to purchasers in Canada and, accordingly, shall not contain any underwriter's certificate. It is further acknowledged that neither the Company nor the Underwriter will market the Securities or provide marketing materials to any prospective purchasers in Canada. The Underwriter agrees that it will not, directly or indirectly, distribute the Registration Statement, the Preliminary Prospectuses or the Final Prospectuses or publish any prospectus, circular, advertisement or other offering material in any jurisdiction other than such states of the United States in which the Securities are duly qualified under U.S. federal and applicable U.S. state securities laws, in such manner as to require registration of the Securities or the filing of a prospectus or any similar document with respect to the Securities by the Company therein or subject the Company to ongoing periodic reporting obligations in such jurisdiction pursuant to the securities laws of such jurisdiction.

The Company has also prepared and filed with the Commission an appointment of agent for service of process upon the Company on Form F-X in conjunction with the filing of the Registration Statement (the ***"Form F-X")***.

For purposes of this Agreement, all references to the Registration Statement, any Upsizing Registration Statement, the U.S. Base Prospectus or the U.S. Preliminary Prospectus, any Issuer Free Writing Prospectus (as defined below) or the U.S; Final Prospectus, or any amendment or supplement to any of the foregoing, shall be deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System ***("EDGAR")***. For purposes of this Agreement, all references to the Canadian Preliminary Base Prospectus, the Canadian Base Prospectus, the Canadian Preliminary Prospectus or the Canadian Final Prospectus, or any amendment or supplement to any of the foregoing (including any Supplementary Material), shall include the copy filed with the Qualifying Authorities pursuant to the System for Electronic Document Analysis and Retrieval ***("SEDAR")***.

All references in this Agreement to financial statements and schedules and other information which is "contained," "included" or "stated" in the Registration Statement, any Upsizing Registration Statement, the U.S. Base Prospectus, the U.S. Preliminary Prospectus or the U.S. Final Prospectus (or other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is incorporated by reference in or otherwise deemed by the Rules and Regulations to be a part of or included in the Registration Statement, any Upsizing Registration Statement1 the U.S. Base Prospectus, the U.S. Preliminary Prospectus or the U.S. Final Prospectus, as the case may be; and all references in this Agreement to amendments or supplements to the Registration Statement, the U.S. Base Prospectus, the U.S. Preliminary Prospectus or the U.S. Final Prospectus shall be deemed to mean and include the filing of any document under the United States Securities Exchange Act of 1934, as amended (the ***"Exchange Act ")***, which is incorporated by reference in or otherwise deemed by Rules and Regulations to be a part of or included in the Registration Statement, the U.S. Base Prospectus, the U.S. Preliminary Prospectus or the U.S. Final Prospectus, as the case may be. All references in this Agreement to financial statements and other information which is "contained," "included" or "stated" in the Canadian Preliminary Base Prospectus, the Canadian Base Prospectus, the Canadian Preliminary Prospectus or the Canadian Final Prospectus (or other references of like import) shall be deemed to mean and include all such financial statements and other information which is incorporated by reference in or otherwise deemed by Canadian Securities Laws to be a part of or included

in the Canadian Preliminary Base Prospectus, the Canadian Base Prospectus, the Canadian Preliminary Prospectus or the Canadian Final Prospectus, as the case may be.

2. Representations and Warranties of the Company. The Company represents and warrants to, and agrees with, the Underwriter as follows:

(a) The Company is a reporting issuer (or equivalent thereof) in each Canadian Jurisdiction, is not in default under the securities laws of any Canadian Jurisdiction, and is in compliance in all material respects with its timely disclosure obligations under the Exchange Act, the Canadian Securities Laws and the requirements of the Toronto Stock Exchange (the ***"TSX")*** and the Nasdaq Global Market ***("NASDAQ")***. The Company meets the general eligibility requirements for use of the Canadian Shelf Procedures and for the use of a short form base shelf prospectus with respect to a distribution of securities. The Company meets the general eligibility requirements for use of Form F-10 under the Securities Act. The Reviewing Authority has issued a Passport Decision Document on behalf of itself and the other Qualifying Authorities for each of the Canadian Preliminary Base Prospectus and the Canadian Base Prospectus; subsequent to the issuance of the Passport Decision Document for the Canadian Base Prospectus, no other document with respect to the Canadian Base Prospectus has heretofore been filed or transmitted for filing with the Qualifying Authorities, except for any document filed with the Qualifying Authorities subsequent to the date of such Passport Decision Document in the form heretofore delivered to the Underwriter.

(b) The Statutory Prospectus (as defined below) at the Time of Sale (as defined below) complies with the requirements of the Securities Act and the Rules and Regulations in all material respects and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(c) The Original Registration Statement initially became effective under the Securities Act on February 28, 2014 and any Upsizing Registration Statement has become effective or will become effective upon filing with the Commission. No stop order suspending the effectiveness of the Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the best knowledge of the Company, are contemplated or threatened by the Commission. No order, ruling or determination having the effect of suspending the sale or ceasing the trading of any securities of the Company (including the Securities) has been issued or made by any Qualifying Authority, any other securities commission, stock exchange or other regulatory authority and no proceedings for that purpose have been instituted or are pending or, to the Company's knowledge, are contemplated by any such authority. Any request on the part of the Commission, any Qualifying Authority or any other securities commission, stock exchange or other regulatory authority for additional information in connection with the offering contemplated hereby has been complied with.

(d) Each part of the Registration Statement, any Upsizing Registration Statement and any post-effective amendment thereto, at the time such part became effective, at all other subsequent times until the expiration of the Prospectus Delivery Period (as defined below), and at the First Closing Date and the Second Closing Date (as defined below), as the case may be, and the U.S. Final Prospectus (or any amendment or supplement to the U.S. Final Prospectus), at the time it is first filed in accordance with General Instruction ILL of Form F-10 or the time of first use within the meaning of the Rules and Regulations, at all subsequent times until expiration of the Prospectus Delivery Period, and at the First Closing Date and the Second Closing Date, as the case may be, complied and will comply in all material respects with the applicable requirements and provisions of the Securities Act, the Rules and Regulations and the Exchange Act and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not

misleading. The representations and warranties set forth in the immediately preceding sentence does not apply to statements in or omissions from the Registration Statement, any Upsizing Registration Statement, or any post-effective amendment thereto, or the Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with written information relating to the Underwriter furnished to the Company by the Underwriter specifically for use therein; it being understood and agreed that the only such information furnished by the Underwriter consists of the information described as such in Section 6(l).

At the time of filing thereof with the applicable Qualifying Authorities and at the First Closing Date and the Second Closing Date: (A) the Canadian Preliminary Prospectus and the Canadian Final Prospectus (and any further amendments or supplements thereto, including any Supplementary Material) complied and will comply in all material respects with the securities laws applicable in the Canadian Jurisdictions and the respective instruments, rules and regulations made and forms prescribed under such laws together with applicable published policy statements (including, without limitation, the Canadian Shelf Procedures) and applicable notices of the Qualifying Authorities made in connection with the transactions contemplated by this Agreement (collectively, the *"Canadian Securities Laws");* and (B) the Canadian Preliminary Prospectus and the Canadian Final Prospectus (and any further amendments or supplements thereto, including any Supplementary Material) constituted and will constitute full, true and plain disclosure of all material facts relating to the Securities and the Company and its Subsidiaries, taken as a whole, and did not and will not contain a misrepresentation, as defined under Canadian Securities Laws, and did not and will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

The U.S. Preliminary Prospectus conformed and will conform to the Canadian Preliminary Prospectus and the U.S. Final Prospectus conformed and will conform to the Canadian Final Prospectus, in each case except for such deletions therefrom and additions thereto as are permitted or required by Form F-10 and the applicable rules and regulations of the Commission.

(e) Neither (A) any Issuer General Free Writing Prospectus(es) issued at or prior to the Time of Sale and set forth on Schedule I, the information set forth on Schedule I and the Statutory Prospectus at the Time of Sale, all considered together (collectively, the *"Time of Sale Disclosure Package"),* nor (B) any individual Issuer Limited-Use Free Writing Prospectus, when considered together
with the Time of Sale Disclosure Package, includes or included as of the Time of Sale any untrue statement of a material fact or omit or omitted as of the Time of Sale to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from any Statutory Prospectus or any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by the Underwriter specifically for use therein; it being understood and agreed that the only such information furnished by the Underwriter consists of the information described as such in Section 6(t). As used in this paragraph and elsewhere in this Agreement:

(i) ***"Time of Sale"*** means 9:45 p.m. (New York time) on the date of this Agreement, or such other time as agreed to by the Company and the Underwriter.

(ii) ***"Statutory Prospectus"*** means the Base Prospectus, as amended and supplemented immediately prior to the Time of Sale, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof. For purposes of this definition, information contained in a form of prospectus filed in accordance with General Instruction 11.L of Form F-10 shall be considered to be included in the Statutory Prospectus as of the actual time that form of prospectus is filed with the Commission under the Securities Act.

(iii) ***"Issuer Free Writing Prospectus"*** means any "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, relating to the Securities that (A) is required to be filed with the Commission by the Company, or (B) is exempt from filing pursuant to Rule 433(d)(5)(i) under the Securities Act because it contains a description of the Securities or of the offering that does not reflect the final terms, or is a "bona fide electronic roadshow," as defined in Rule 433 of the Rules and Regulations, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g) under the Securities Act.

(iv) ***"Issuer General Free Writing Prospectus"*** means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors, as evidenced by its being specified in Schedule II hereto.

(v) ***"Issuer Limited-Use Free Writing Prospectus"*** means any Issuer Free Writing Prospectus that is not an Issuer General Free Writing Prospectus.

(t) (A) Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the Prospectus Delivery Period or until any earlier date that the Company notified or notifies the Underwriter as described in Section 4(c)(B), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, any Statutory Prospectus or the Prospectus. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished in writing to the Company by the Underwriter specifically for use therein; it being understood and agreed that the only such information furnished by the Underwriter consists of the information described as such in Section 6(f).

(B)(1) At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Securities and (2) at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405 under the Securities Act, in the preceding three years not having been convicted of a felony or misdemeanor or having been made the subject of a judicial or administrative decree or order as described in Rule 405 (without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer), nor an "excluded issuer" as defined in Rule 164 under the Securities Act.

(C) Each Issuer Free Writing Prospectus satisfied, as of its issue date and at all subsequent times through the Prospectus Delivery Period, all other conditions to use thereof as set forth in Rules 164 and 433 under the Securities Act.

(g) The U.S. Preliminary Prospectus and the U.S. Final Prospectus delivered or to be delivered to the Underwriter for use in connection with this offering was or will be substantially identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T. The Canadian Preliminary Prospectus and the Canadian Final Prospectus delivered or to be delivered to the Underwriters for use in connection with this offering was or will be identical to the electronically transmitted copies thereof filed with the applicable Qualifying Authorities pursuant to SEDAR.

(h) The financial statements of the Company, together with the related notes, set forth or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses comply in all material respects with the requirements of the Securities Act and the Exchange Act and fairly present the financial condition of the Company as of the dates indicated and the

results of operations and changes in cash flows for the periods therein specified in conformity with generally accepted accounting principles used in the United States of America ***("U.S. GAAP"),*** consistently applied throughout the periods involved; and the supporting schedules included in the Registration Statement, if any, the Time of Sale Disclosure Package and the Final Prospectuses have been derived from the accounting records of the Company and present fairly the information required to be stated therein. No other schedules or financial statements are required to be included in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectuses. To the Company's knowledge, KPMG LLP, which has expressed its opinion with respect to the financial statements filed as a part of the Registration Statement and included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, are independent public accountants as required by the Securities Act, the Ru les and Regulations and Canadian Securities Laws, are in good standing with the Canadian Public Accountability Board and are independent with respect to the Company within the meaning of the Sarbanes-Oxley Act of 2002 (the ***"Sarbanes-Oxley Act")*** for the periods required under General Instruction III.B. of Form F-10, and are also independent with respect to the Company as required by the Business Corporations Act (British Columbia), applicable Canadian Securities Laws and applicable Canadian professional standards. There has not been a "reportable event" (within the meaning of Section 4.11 of National Instrument 51-102 - *Continuous Disclosure Obligations)* between KPMG LLP and the Company. Except as described in the Time of Sale Disclosure Package and the Final Prospectuses, there are no material off-balance sheet transactions, arrangements, obligations (including contingent obligations), or any other relationships with unconsolidated entities or other persons, that may have a material current or, to the Company's knowledge, future effect on the Company's financial condition, changes in financial condition or results of operations. All non-GAAP financial information included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses complies in all material respects with the requirements of Regulation G under the Securities Act and the published policies of the Canadian securities regulatory authorities regarding the use of non-GAAP financial information.

(i) The Company has been duly incorporated and is validly existing as a company in good standing under the *Business Corporations Act* (British Columbia). The Company has full corporate power and authority to own its properties and conduct its business as currently being conducted and as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, and is duly qualified to do business as a foreign corporation in good standing in each jurisdiction in which the failure to so qualify might result in a material adverse change in the general affairs, condition (financial or otherwise), business, prospects, property, operations or results of operations of the Company ***("Material Adverse Change")***.

(j) Protiva Biotherapeutics Inc. and Protiva Biotherapeutics (USA), Inc. are wholly- owned subsidiaries of the Company and Protiva Agricultural Development Company Inc. is a wholly owned subsidiary of Protiva Agricultural Development Company Inc. (collectively, the ***"Subsidiaries'),*** have been duly incorporated and are validly existing as a corporations in good standing under the laws of their jurisdictions of incorporation, have the corporate power and authority to own, lease and operate their properties and to conduct their business as described in the Time of Sale Disclosure Package and the Final Prospectuses and are duly qualified to transact business and are in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership ot leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing could not reasonably be expected to result in a Material Adverse Change. All of the issued and outstanding shares in the capital of each Subsidiary have been duly authorized and validly issued and are fully paid and non assessable and are owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity, except for any security interests, mortgages, pledges, liens, encumbrances, claims or equities that are described in the Time of Sale Disclosure Package and the Final Prospectuses; none of the outstanding shares in the capital of the

Subsidiaries was issued in violation of preemptive or other similar rights of any shareholder of such Subsidiaries. Other than Protiva Biotherapeutics Inc. and Protiva Biotherapeutics (USA), Inc., the Company, directly or indirectly, owns no capital stock or other equity or ownership or proprietary interest in any corporation, partnership, association, trust or other entity.

(k) Except as contemplated in the Time of Sale Disclosure Package and the Final Prospectuses, subsequent to the respective dates as of which information is given in the Time of Sale Disclosure Package, (a) the Company has not incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock; and (b) there has not been any change in the capital stock (other than a change in the number of outstanding Common Shares due to the issuance of equity compensation awards under the Company's equity compensation plans or shares upon the exercise of outstanding options or warrants), or any material change in the short term or long term debt, or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock, of the Company (other than issuances of equity compensation awards under the Company's equity compensation plans), or any Material Adverse Change or any development that could reasonably be expected to result in a Material Adverse Change.

(l) Except as set forth in the Time of Sale Disclosure Package and the Final Prospectuses, there is not pending or, to the knowledge of the Company, threatened or contemplated, any action, suit or proceeding to which the Company is a party or of which any property or assets of the Company is the subject before or by any court or governmental agency, authority or body, or any arbitrator, which, individually or in the aggregate, could reasonably be expected to result in any Material Adverse Change. There are no current or pending legal, governmental or regulatory actions, suits or proceedings that are required to be described in the Registration Statement, the Time of Sale Disclosure,. Package and the Final Prospectuses that have not been so described.

(m) There are no material statutes, regulations, contracts or documents that are required to be described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses or to be filed as exhibits to the Registration Statement by the Securities Act or by the Rules and Regulations that have not been so described or filed.

(n) This Agreement has been duly authorized, executed and delivered by the Company, and constitutes a valid, legal and binding obligation of the Company, enforceable in accordance with its terms, except as rights to indemnity hereunder may be limited by federal, state or provincial securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity. The execution, delivery and performance of this Agreement and the consummation of the transactions herein contemplated will not (A) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or the Subsidiaries pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or such Subsidiaries is a party or by which the Company or such Subsidiaries is bound or to which any of the property or assets of the Company or the Subsidiaries is subject, (B) result in any violation of the provisions of the charter, articles of incorporation or bylaws of the Company or the Subsidiaries or (C) result in the violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental agency or regulatory authority, except, in the case of clause (A), any lien, charge, encumbrance, indenture, mortgage, deed of trust, loan agreement or other agreement or instrument that, would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change and except in the case of (C) above, could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change. No consent, approval,

authorization or order of, or filing with, any court or governmental agency or body is . required for the execution, delivery and performance of this Agreement or for the consummation of the transactions contemplated hereby, including the issuance or sale of the Securities by the Company, except such as may be required under the Securities Act, the rules of the Financial Industry Regulatory Authority ***("FINRA")***, the NASDAQ, the TSX or state or provincial securities or blue sky laws; and the Company has full power and authority to enter into this Agreement and to consummate the transactions contemplated hereby including the authorization, issuance and sale of the Securities as contemplated by this Agreement.

(o) All of the issued and outstanding shares in the capital of the Company, including the outstanding Common Shares, are duly authorized and validly issued, fully paid and nonassessable, have been issued in compliance with all Canadian and, to the extent applicable, U.S. securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities that have not been waived in writing; the Securities which may be sold hereunder by the Company have been duly authorized and, when issued, delivered and paid for in accordance with the terms of this Agreement, will have been validly issued and will be fully paid and nonassessable; and the authorized share capital of the Company, including the Common Shares, conforms to the description thereof in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses. Except as otherwise described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, there are no preemptive rights or other rights to subscribe for or to purchase, or any restriction upon the voting or transfer of, any Common Shares pursuant to the Company's charter, by laws or any agreement or other instrument to which the Company is a party or by which the Company is bound, other than options to purchase Common Shares under the Company's existing stock option plans. Except as described in the Registration Statement, in the Time of Sale Disclosure Package and in the Final Prospectuses, neither the filing of the Registration Statement nor the offering or sale of the Securities as contemplated by this Agreement gives rise to any rights for or relating to the registration of any Common Shares or other securities of the Company that have not been fully complied with or previously waived. Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, there are no options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company any shares in the capital of the Company. The Company has an authorized and outstanding capitalization as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth in the Time of Sale Disclosure Package and the Final Prospectuses accurately and fairly presents in all material respects the information required to be shown with respect to such plans, arrangements, options and rights. Except as set forth in the Time of Sale Disclosure Package, the Company is not a participant in any joint venture, partnership or similar arrangement.

(p) The Company holds, and is operating in compliance in all material respects with, all franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders of any Governmental Authority or self-regulatory body required for the conduct of its business, and all such franchises, grants, authorizations, licenses, permits, easements, consents, certifications and orders are valid and in full force and effect; and the Company has not received notice of any revocation or modification of any such franchise, grant, authorization, license, permit, easement, consent, certification or order or has reason to believe that any such franchise, grant, authorization, license, permit, easement, consent, certification or order will not be renewed in the ordinary course; and the Company is in compliance in all material respects with all applicable U.S. and Canadian federal, provincial, state, local and foreign laws, regulations, orders and decrees.

(q) The Company has good and marketable title to all property (whether real or personal) described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses as being owned by them, in each case free and clear of all liens, claims, security interests, other encumbrances or defects except as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, and except those that could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change. The property held under lease by the Company is held by it under valid, subsisting and enforceable leases with only such exceptions with respect to any particular lease as do not interfere in any material respect with the conduct of the business of the Company.

(r) The Company owns, possesses, or can acquire on reasonable terms, all Intellectual Property (as defined below) necessary for the conduct of its business as now conducted or as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses to be conducted. Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, (A) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any such Intellectual Property, except for such infringements, misappropriations or violations that could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change; (B) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the Company's rights in or to any such Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (C) the Intellectual Property owned by the Company, and to the knowledge of the Company, the Intellectual Property licensed to the Company, have not been adjudged invalid or unenforceable, in whole or in part, and there is no pending or threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (D) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property or other proprietary rights of others, and the Company has not received any written notice of such claim and the Company is unaware of any other fact which would form a reasonable basis for any such claim; and (E) to the knowledge of the Company, no employee of the Company is in or has ever been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company or actions undertaken by the employee while employed with the Company, except for such violations that could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change. ***"Intellectual Property"*** shall mean all patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets and other intellectual property.

(s) The Company is not (A) in violation of its articles of incorporation or by laws; (B) in breach of or otherwise in default, and no event has occurred which, with notice or lapse of time or both, would constitute such a default in the performance or observance of any term, covenant, obligation, agreement or condition contained in any bond, debenture, note, indenture, loan agreement, mortgage, deed of trust or any other contract, lease or other instrument to which it is subject or by which it may be bound, or to which any of the material property or assets of the Company is subject; or (C) in violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, except in the case of (B) and (C) above, as could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change.

(t) The Company has timely filed all United States federal, Canadian federal, state, provincial, local and foreign income and franchise tax returns required to be filed and is not in default in the payment of any material taxes which was payable pursuant to said returns or any assessments with respect thereto, other than any which the Company is contesting in good faith. There is no pending dispute with any taxing authority relating to any of such returns and the Company has no knowledge of

any proposed liability for any tax to be imposed upon the properties or assets of the Company for which there is not an adequate reserve reflected in the Company's financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses.

(u) The Company, directly or indirectly, owns no capital stock or other equity or ownership or proprietary interest in any corporation, partnership, association, trust or other entity, other than the Subsidiaries and other than as disclosed in the Time of Sale Disclosure Package.

(v) The Company has not distributed and will not distribute any prospectus or other offering material in connection with the offering and sale of the Securities other than the Time of Sale Disclosure Package or the Final Prospectuses or other materials permitted by the Securities Act to be distributed by the Company; *provided, however,* that, except as set forth on Schedule II, the Company has not made and will not make any offer relating to the Securities that would constitute a "free writing prospectus" as defined in Rule 405 under the Securities Act, except in accordance with the provisions of Section 4(p) of this Agreement.

(w) The Common Shares of the Company are registered pursuant to Section 12(b) of the Exchange Act, are listed on the NASDAQ under the ticker symbol "**TKMR**," and are listed on the TSX under the symbol "**TKM**". The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Shares under the Exchange Act or delisting the Common Shares from the NASDAQ or the TSX nor has the Company received any written notice that it is not in compliance with the listing or maintenance requirements of the NASDAQ or the TSX. The Company believes that it is, and has no reason to believe that it will not in the foreseeable future continue to be, in material compliance with all such listing and maintenance requirements. Except as described in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectuses, there are no affiliations among the Company's directors and officers and members of the FINRA other than as disclosed to the FIN RA. A Registration Statement relating to the Common Shares on Form 8-A or other applicable form under the Exchange Act has become effective.

(x) The Company maintains a system of internal accounting controls sufficient to provide reasonable assurances that (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with U.S. GAAP, and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; and (D) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company's internal control over financial reporting is effective and none of the Company, its board of directors and audit committee is aware of any "significant deficiencies" or "material weaknesses" (each as defined by the rules adopted by the Commission) in its internal control over financial reporting, or any fraud that involves management or other employees of the Company who have a significant role in the Company's internal controls; and since the end of the latest audited fiscal year, there has been no change in the Company's internal control over financial reporting (whether or not remediated) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company's board of directors has, subject to the exceptions, cure periods and the phase in periods specified in the applicable stock exchange rules ***("Exchange Rules"),*** validly appointed an audit committee to oversee internal accounting controls whose composition satisfies the applicable independence and other requirements of the Exchange Rules and Canadian Securities Laws, and the Company's board of directors and/or the audit committee has adopted a charter that satisfies the requirements of the Exchange Rules and Canadian Securities Laws.

(y) The Company and its Subsidiaries maintain disclosure controls and procedures as required by Rule l 3a- l 5 or Rule l 5d-15 under the Exchange Act and as contemplated by the certifications

required under Form 52-109F 1 and Form 52-109F2 under Multilateral Instrument 52-109 - *Certification of Disclosures* in Issuer's Annual and Interim Filings; such controls and procedures are effective to ensure that all material information concerning the Company and any of its Subsidiaries is made known, on a timely basis, to the individuals responsible for the preparation of the Company's filings with the Commission and the Qualifying Authorities. The Company has utilized such controls and procedures in preparing and evaluating the disclosures in the Registration Statement, in the Time of Sale Disclosure Package and in the Final Prospectuses. Neither the Company's board of directors nor the audit committee has been informed, nor is any director of the Company or the Company aware, of (A) any significant deficiencies in the design or operation of the Company's internal controls which could adversely affect the Company's ability to record, process, summarize and report financial data or any material weakness in the Company's internal controls; or (B) any fraud, whether or not material, that involves management or other employees of the Company who have a significant role in the Company's internal controls.

(z) No material relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, on the other hand, which is required to be described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses which is not so described. The Company has not, directly or indirectly, extended or maintained credit, or arranged for the extension of credit, or renewed an extension of credit, in the form of a personal loan to or for any of its directors or executive officers in violation of applicable laws, including Section 402 of the Sarbanes-Oxley Act.

(aa) Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, the Company: (A) is and at all times has been in compliance with all applicable U.S., Canadian and foreign statutes, rules, regulations, or guidances applicable to Company and the ownership, testing, development, manufacture, packaging, processing, use, distribution, ii marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company, except where such noncompliance could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change ***("Applicable Laws");*** (B) has not received any warning letter, untitled letter or other correspondence or written notice from the U.S. Food and Drug Administration or any other U.S. or Canadian federal, state, provincial or foreign governmental authority having authority over the Company ***("Governmental Authority")*** alleging or asserting noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws ***("Authorizations");*** (C) possesses all Authorizations and such Authorizations are valid and in full force and effect and are not in violation of any term of any such Authorizations, except as could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change; (D) has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and have no knowledge that any such Governmental Authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received written notice that any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and the Company has no knowledge that any such Governmental Authority is considering such action; and (F) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct in all material respects on the date filed (or were corrected or supplemented by a subsequent submission).

(bb) The studies, tests and preclinical and clinical trials conducted by or on behalf of the Company were and, if still pending, are, being conducted in accordance with experimental protocols,

procedures and controls pursuant to accepted professional scientific standards and all Applicable Laws and Authorizations; the descriptions of the results of such studies, tests and trials contained in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses are accurate and complete and fairly present the data derived from such studies, tests and trials; except to the extent disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, the Company is not aware of any studies, tests or trials the results of which the Company believes reasonably call into question the study, .test, or trial results described or referred to in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses when viewed in the context in which such results are described and the clinical state of development; and the Company has not received any notices or correspondence from any Governmental Authority requiring the termination, suspension or material modification of any current or active studies, tests or preclinical or clinical trials conducted by or on behalf of the Company.

(cc) The Company (A) is in compliance with any and all applicable United States and Canadian federal, state, provincial, local and foreign laws, rules, regulations, decisions and orders relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (collectively, ***"Environmental Laws");*** (B) has received and are in material compliance with all permits, licenses or other approvals required of it under applicable Environmental Laws to conduct .its business; and (C) has not received notice of any actual or potential liability for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except in any such case for any such failure to comply, or failure to receive required permits, licenses or approvals, or liability as would not, individually or in the aggregate, result in a Material Adverse Change.

(dd) The documents filed as exhibits to the Registration Statement or otherwise incorporated by reference in the Time of Sale Disclosure Package and in the Final Prospectuses, when they became effective or were filed with the Commission or the applicable Qualifying Authorities, as the case may be, conformed in all material respects to all applicable requirements of the Securities Act or the Exchange Act and all applicable requirements of Canadian Securities Laws, as the case may be, and were filed on a timely basis with the Commission and with the applicable Qualifying Authorities, as the case may be, and none of such documents contained an untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; any further documents so filed and incorporated by reference in the Time of Sale Disclosure Package or in the Final Prospectuses, when such documents are filed with the Commission or the applicable Qualifying Authorities, as the case may be, will confirm in all material respects to all applicable requirements of the Securities Act or the Exchange Act and all applicable requirements of Canadian Securities Laws, as the case may be, and will not contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

Each document filed or to be filed with the applicable Qualifying Authorities and incorporated or deemed to be incorporated by reference in the Canadian Base Prospectus, the Canadian Preliminary Prospectus and the Canadian Final Prospectus complied or will comply when so filed and at the First Closing Date and the Second Closing Date, as the case may be, in all material respects with Canadian Securities Laws, and did not or will not contain a misrepresentation as defined under Canadian Securities Laws, and none of such documents contained or will contain at the time of its filing and at the First Closing Date and the Second Closing Date, as the case may be, any untrue statement of a material fact or omitted or will omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were or are made, not misleading. The Company has not filed any confidential material change reports which remain confidential as at the date hereof.

(ee) The Company (A) is in compliance, in all material respects, with any and all applicable United States and Canadian federal, state, provincial, local and foreign laws, rules, regulations, treaties, statutes and codes promulgated by any and all governmental authorities (including pursuant to the Occupational Health and Safety Act, if applicable) relating to the protection of human health and safety in the workplace *("**Occupational Laws**");* (B) has received all material permits, licenses or other approvals required of it under applicable Occupational Laws to conduct its business as currently conducted; and (C) is in compliance, in all material respects, with all terms and conditions of such permit, license or approval. No action, proceeding, revocation proceeding, writ, injunction or claim is pending or, to the Company's knowledge, threatened against the Company relating to Occupational Laws, and the Company does not have knowledge of any facts, circumstances or developments relating to its operations or cost accounting practices that could reasonably be expected to form the basis for or give rise to such actions, suits, investigations or proceedings. Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended *("**ERISA**")*, that is maintained, administered or contributed to by the Company, or any of its affiliates for employees or former employees of the Company and has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to, BRISA and the Internal Revenue Code of 1986, as amended (the *"**Code**")*. No prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption; and for each such plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no "accumulated funding deficiency" as defined in Section 412 of the Code has been incurred, whether or not waived, and the fair market value of the assets of each such plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such plan determined using reasonable actuarial assumptions.

(ff) Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, the Company has not granted rights to develop, manufacture, produce, assemble, distribute, license, market or sell its products to any other person and is not bound by any agreement that affects the Company's exclusive right to develop, manufacture, produce, assemble, distribute, license, market or sell its products.

(gg) Nothing has come to the attention of the Company that has caused the. Company to believe that the statistical and market-related data included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses is not based on or derived from sources that are reliable and accurate in all material respects.

(hh) Other than as contemplated by this Agreement, the Company has not incurred any liability for any finder's or broker's fee or agent's commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

(ii) To the knowledge of the Company, none of the directors or executive officers of the Company are now, or have ever been, subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority, or have entered into a settlement agreement with a securities regulatory authority. Neither the Commission, the Reviewing Authority, any other securities regulatory authority, any stock exchange nor any similar regulatory authority has issued any order which is currently outstanding preventing or suspending trading in any securities of the Company or the use of the Final Prospectuses and no proceedings for such purposes have been instituted or are pending or, to the knowledge of the Company, are contemplated.

(jj) The Company is not presently doing business with the government of Cuba or with any person or affiliate located in Cuba.

(kk) The Company carries, or is covered by, insurance in such amounts and covering such risks as is adequate for the conduct of its business and the value of its properties and as is customary for companies engaged in similar businesses in similar industries; and the Company has not (A) received written notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance or (B) reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage at reasonable cost from similar insurers as may be necessary to continue its business. All such insurance is outstanding and duly in force on the date hereof.

(ll) No labor problem or dispute with the employees of the Company exists nor, to the best knowledge of the Company, is threatened or imminent except as could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change.

(mm) Neither the Company, nor, to the best knowledge of the Company, any director, officer, agent, employee, consultant or other person associated with or acting on behalf of the Company has (A) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (B) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (C) violated or is in violation of any provision of the Canadian Corruption of Foreign Public Officials Act or the U.S. Foreign Corrupt Practices Act of 1977; or (D) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment.

(nn))'he Company is not and, after giving effect to the offering, the sale of the Securities and the intended use of proceeds of the offering, will not be registered or required to register as an "investment company," as such term is defined in the Investment Company Act of 1940, as amended.

(oo) Except as described in the Final Prospectuses or otherwise obtained by the Company, no approval of the shareholders of the Company is required for the Company to issue and deliver to the Underwriter the Securities, including such as may be required pursuant to the rules and regulations of any trading market.

(pp) The Company is in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act and the rules and regulations of the Commission thereunder,

(qq) The Company and its board of directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's articles of incorporation or by-laws, the *Business Corporations Act* (British Columbia) or other applicable Canadian laws that is or could reasonably be expected to become applicable to the Underwriter as a result of the Underwriter and the Company fulfilling their obligations or exercising their rights under the Agreement, including, without limitation, the Company's issuance of the Securities and the Underwriter's ownership of the Securities.

(rr) The Company satisfies the eligibility requirements for the use of a registration statement on Form F-10 set forth in Securities Act Release No. 6902 (June 21, 1991).

3. Purchase, Sale and Delivery of Securities.

(a) On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell the Firm

Shares to the Underwriter, and the Underwriter agrees to purchase from the Company the Firm Shares. The purchase price for each Firm Share shall be US$26, 79 per share.

The Finn Shares will be delivered by the Company to the Underwriter against payment of the purchase price therefor by wire transfer of same day funds payable to the order of the Company at the offices of Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, New York, or such other location as may be mutually acceptable, at 10:00 a.m. Eastern time on the third (or if the Firm Shares are priced, as contemplated by Rule 15c6-l(c) under the Exchange Act, after 4:30 p.m. Eastern time, the fourth) full business day following the date hereof, or at such other time and date as the Underwriter and the Company determine pursuant to Rule 15c6-l(a) under the Exchange Act, such time and date of delivery being herein referred to as the ***"First Closing Date."*** If the Underwriter so elects, delivery of the Firm Shares may be made by credit through full fast transfer to the accounts at The Depository Trust Company designated by the Underwriter, or through CDS Clearing and Depository Services Inc.

(b) On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company hereby grants to the Underwriter an option to purchase all or any portion of the Option Shares to be sold by the Company hereunder, at the same purchase price as the Firm Shares, for use in covering any over-allotments made by the Underwriter in the sale and distribution of the Firm Shares and for market stabilization purposes. The option granted hereunder may be exercised in whole or in part at any time and from time to time within 30 days after the effective date of this Agreement upon notice (confirmed in writing) by the Underwriter to the Company setting forth the aggregate number of Option Shares as to which the Underwriter is exercising the option, the names and denominations in which the certificates for the Option Shares are to be registered and the date and time, as determined by the Underwriter, when the Option Shares are to be delivered, such time and date being herein referred to as the ***"Second Closing"*** and ***"Second Closing Date",*** respectively; provided, however, that the Second Closing Date shall not be earlier than the First Closing Date nor earlier than the second business day after the date on which the option shall have been exercised. The number of Option Shares to be purchased by the Underwriter shall be the same percentage of the total number of Option Shares to be purchased by the Underwriter as the number of Firm Shares to be purchased by the Underwriter is of the total number of Firm Shares to be purchased by the Underwriter, as adjusted by the Underwriter in such manner as the Underwriter deems advisable to avoid fractional shares. No Option Shares shall be sold and delivered unless the Firm Shares previously have been, or simultaneously are, sold and delivered.

The Option Shares will be delivered by the Company to the Underwriter against payment of the purchase price therefor by wire transfer of same day funds payable to the order of the Company at the offices of Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, New York, or such other location as may be mutually acceptable, at 9:00 a.m. Eastern time, on the Second Closing Date. If the Underwriter so elects, delivery of the Option Shares may be made by credit through full fast transfer to the accounts at The Depository Trust Company designated by the Underwriter, or through CDS Clearing and Depository Services Inc.

(c) The Underwriter shall be permitted to appoint additional investment dealers or brokers (each, a ***"Selling Firm")*** as its agents in the offering of the Securities and the Underwriter may determine the remuneration payable to such Selling Firm. The Underwriter may offer the Securities, directly and through Selling Finns or any affiliate of the Underwriter, in the United States for sale to the public or to purchasers otherwise permitted to purchase the Securities in accordance with the Securities Act, the Rules and Regulations and the Canadian Securities Laws and upon the terms and conditions set forth in the Final Prospectuses and in this Agreement. The Underwriter shall require any Selling Firm appointed by the Underwriter to agree to the foregoing and the Underwriter shall be severally responsible

for the compliance by such Selling Firm with the provisions of this Agreement. The Underwriter shall promptly notify the Company when, in its opinion, the distribution of the Securities has ceased.

4. Covenants. The Company covenants and agrees with the Underwriter as follows:

(a) During the period beginning on the date hereof and ending on the later of the Second Closing Date and such date, as in the opinion of counsel for the Underwriter, the U.S. Final Prospectus is no longer required by law to be delivered (assuming the absence of Rule 172 under the Securities Act), in connection with sales by the Underwriter (the ***"Prospectus Delivery Period"***), prior to amending or supplementing the Registration Statement, including any Upsizing Registration Statement, the Time of Sale Disclosure Package or the U.S. Final Prospectus, the Company shall furnish to the Underwriter for review a copy of each such proposed amendment or supplement, and the Company shall not file any such proposed amendment or supplement to which the Underwriter or counsel to the Underwriter reasonably object. Subject to this Section 4(a), immediately following execution of this Agreement, the Company will prepare the Canadian Final Prospectus Supplement in accordance with the Canadian Shelf Procedures and the U.S. Final Prospectus Supplement, consisting of the Canadian Final Prospectus Supplement with such deletions therefrom and additions thereto as are permitted or required by Form F-10 and the applicable rules and regulations of the Commission, in each case in a form reasonably approved by the Underwriter, and will file (i) the Canadian Final Prospectus Supplement with the Reviewing Authority pursuant to the Canadian Shelf Procedures on March 13, 2014, and (ii) the U.S. Final Prospectus Supplement with the Commission pursuant to General Instruction TI.L of Form F-10 as soon as possible and in any event within one business day of the filing of the Canadian Final Prospectus Supplement with the Reviewing Authority.

(b) The Company will advise the Underwriter, promptly after it shall receive written notice of the issuance by the Commission or any of the Qualifying Authorities of any stop order or cease trade order suspending the effectiveness of the Registration Statement, or any post-effective amendment thereto, or preventing or suspending the use of any Preliminary Prospectus, the Time of Sale Disclosure Package, the Final Prospectuses or any Issuer Free Writing Prospectus, of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and the Company will promptly use its best efforts to prevent the issuance of any stop order or cease trade order or to obtain its withdrawal if such a stop order or cease trade order should be issued. Additionally, the Company will notify the Underwriter promptly, and confirm the notice as applicable, (1) when the Canadian Final Prospectus Supplement shall have been filed with the Reviewing Authority pursuant to the Canadian Shelf Procedures, (2) when the U.S. Final Prospectus Supplement shall have been filed with the Commission pursuant to General Instruction 11.L of Form F-10, (3) prior to the termination of the offering of the Securities, of any request by the Qualifying Authorities to amend or supplement, as applicable, the Canadian Base Prospectus, the Canadian Final Prospectus or any document incorporated by reference therein or for additional information or of any request by the Commission to amend the Registration Statement or to amend or supplement, as applicable, the U.S. Base Prospectus, the U.S. Final Prospectus or any document incorporated by reference therein or for additional information, (4) of the time when, prior to the termination of the offering of the Securities, any amendment or supplement, as applicable, to the Canadian Base Prospectus or any document incorporated by reference therein has been filed with or receipted by the Reviewing Authority, or of the filing with, or mailing or the delivery to, the Commission for filing of any amendment of the Registration Statement or supplement to the U.S. Base Prospectus.

(c) (A) During the Prospectus Delivery Period, the Company will comply as far as it is able with all requirements imposed upon it by the Securities Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, by the Exchange Act and by Canadian Securities Laws so far as necessary to permit the continuance of sales of or dealings in the Securities as

contemplated by the provisions hereof, the Time of Sale Disclosure Package and the Final Prospectuses. If during such period any event shall occur or condition shall exist as a result of which the Final Prospectuses (or if the Final Prospectuses are not yet available to prospective purchasers, the Time of Sale Disclosure Package) would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend the Registration Statement or supplement the Final Prospectuses (or, if the Final Prospectuses are not yet available to prospective purchasers, the Time of Sale Disclosure Package) to comply with the Securities Act or to file under the Exchange Act or under Canadian Securities Laws any document which would be deemed to be incorporated by reference in the Final Prospectuses in order to comply with the Securities Act, the Exchange Act or Canadian Securities Laws, the Company will promptly notify the Underwriter and will amend the Registration Statement or supplement the Final Prospectuses (or, if the Final Prospectuses are not yet available to prospective purchasers, the Time of Sale Disclosure Package) or file such document (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(B) If, at any time following issuance of an Issuer Free Writing Prospectus, there occurred. or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, any Statutory Prospectus or the Final Prospectuses relating to the Securities or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company promptly will notify the Underwriter and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(d) The Company shall take or cause to be taken all necessary action to qualify the Securities for sale under the securities laws of the applicable Canadian Jurisdictions and to continue such qualifications in effect so long as required for the distribution of the Securities, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or to execute a general consent to service of process in arty state.

(e) The Company will furnish or make available to the Underwriter, at the Company's expense, copies of the Registration Statement (which will include a manually signed copy of the Registration Statement and all consents and exhibits filed therewith upon reasonable request), and to the Underwriter and any dealer each Preliminary Prospectus, the Time of Sale Disclosure Package, the Final Prospectuses, the Issuer Free Writing Prospectus, and all amendments and supplements to such documents, in each case as soon as available and in such quantities as the Underwriter may from time to time reasonably request. Notwithstanding the foregoing, the Company shall forthwith cause to be delivered to the Underwriter in such cities in the United States as they may reasonably request, without charge, such numbers of commercial copies of the U.S. Final Prospectuses, excluding any documents incorporated by reference, as the Underwriter shall reasonably require, which deliveries shall be effected as soon as possible and, in any event, in New York not later than 12:00 p.m. local time on March 14, 2014, and in all other cities by 12:00 noon local time on the next business day, provided that the Underwriter has given the Company written instructions as to the number of copies required and the places to which such copies are to be delivered not less than 24 hours prior to the time requested for delivery. Such delivery shall also confirm that the Corporation consents to the use by the Underwriter and any dealer of the U.S. Final Prospectus in connection with the offering of the Securities in compliance with the provisions of this Agreement.

(f) The Company will make generally available to its security holders as soon as practicable, but in no event later than 15 months after the end of the Company's current fiscal quarter, an

earnings statement (which need not be audited) covering a 12-month period that shall satisfy the provisions of Section l l (a) of the Securities Act and Rule 158 of the Rules and Regulations.

(g) The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is prevented from becoming effective under the provisions of Section 8(a) hereof or is otherwise terminated, will pay or cause to be paid (A) all expenses (including transfer taxes allocated to the respective transferees) incurred in connection with the delivery to the Underwriter of the Securities, (B) all expenses and fees (including, without limitation, fees and expenses of the Company's accountants and counsel) in connection with the preparation, printing, filing, delivery, and shipping of the Registration Statement (including the financial statements therein and all amendments, schedules, and exhibits thereto), the Securities, each Preliminary Prospectus, the Time of Sale Disclosure Package, the Final Prospectuses, any Issuer Free Writing Prospectus and any amendment thereof or supplement thereto, and the printing, delivery, and shipping of this Agreement and other underwriting documents, including Blue Sky Memoranda (covering the states and other applicable jurisdictions), (C) all reasonable and documented filing fees and reasonable fees and disbursements of the Underwriter's counsel incurred in connection with the qualification of the Securities for offering and sale by the Underwriter or by dealers under the securities or blue sky laws of the states and other jurisdictions which the Underwriter shall designate, (D) the fees and expenses of any transfer agent or registrar, (E) the reasonable and documented filing fees and fees and disbursements of Underwriter's counsel incident to any required review and approval by FINRA of the terms of the sale of the Securities, (F) listing fees, if any, (G) the costs and expenses of the Company relating to investor presentations or any "roadshow" undertaken in connection with the marketing of the Securities, and (H) all other costs and expenses of the Company incident to the performance of its obligations hereunder that are not otherwise specifically provided for herein. Except as provided in this Section 4(g), the Underwriter shall pay its own expenses, including the fees and disbursements of its counsel. If this Agreement is terminated pursuant to Section S(a) hereof or .if the sale of the Securities provided for herein is not consummated by reason of action by the Company pursuant to Section 9 hereof which prevents this Agreement from becoming effective, or by reason of any failure, refusal or inability on the part of the Company to perform any agreement on its part to be performed, or because any other condition of the Underwriter's obligations hereunder required to be fulfilled by the Company is not fulfilled, the Company will reimburse the Underwriter for all reasonable and documented out-of-pocket disbursements (including reasonable fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges) incurred by the Underwriter in connection with its investigation, preparing to market and marketing the Securities or in contemplation of performing their obligations hereunder. The Company shall not in any event be liable to the Underwriter for loss of any anticipated profits from the transactions contemplated by this Agreement.

(h) The Company intends to apply the net proceeds from the sale of the Securities to be sold by it hereunder for the purposes set forth in the Time of Sale Disclosure Package and in the Final Prospectuses.

(i) The Company will not, without the prior written consent of the Underwriter, from the date of execution of this Agreement and continuing to and including the date 90 days after the date of the Final Prospectuses (the ***"Lock-Up Period"***), (A) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, any Common Shares or any securities convertible into or exercisable or exchangeable for Common Shares or (B) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Shares, whether any such transaction described in clause (A) or (8) above is to be settled by delivery of Common Shares or such other securities, in cash or otherwise, except for (A) sales of the Securities to the Underwriter pursuant to this Agreement, (B) grants

of options or the issuance of Common Shares by the Company pursuant to equity incentive plans described in the Time of Sale Disclosure Package, or (C) issuance of shares upon exercise or conversion of securities outstanding as of the date hereof. The Company agrees not to accelerate the vesting of any option or warrant or the lapse of any repurchase right prior to the expiration of the Lock-Up Period. If (I)) during the last 17 days of the Lock-Up Period, (a) the Company issues an earnings release, (b) the Company publicly announces material news or (c) a material event relating to the Company occurs; or (2) prior to the expiration of the Lock-Up Period, the Company announces that it will release earnings results during the 16-day period beginning on the last day of the Lock-Up Period, then the restrictions in this Agreement, unless otherwise waived by the Underwriter in writing, shall continue to apply until the expiration of the date that is 18 calendar days after the date on which (a) the Company issues the earnings release, (b) the Company publicly announces material news or (c) a material event relating to the Company occurs; *provided, however,* that this sentence shall not apply if the research published or distributed on the Company is compliant under Rule 139 of the Securities Act, and the Company's securities are actively traded as defined in Rule 101(c)(l) of Regulation M of the Exchange Act. The Company will provide the Underwriter and each person subject to the Lock-Up Agreement (as defined below) with prior notice of any such announcement that gives rise to the extension of the Lock-Up Period.

(j) The Company has caused to be delivered to the Underwriter prior to the date of this Agreement a letter, in the form of Exhibit A hereto (the ***"Lock-Up Agreement'),*** from each of the Company's directors and officers identified on Schedule III. If requested by the Underwriter, the Company will issue stop-transfer instructions to the transfer agent for the Common Shares with respect to any transaction or contemplated transaction that would constitute a breach of or default under the applicable Lock-Up Agreement.

(k) Other than in connection with any road show or other marketing of the offering of Securities, the Company has not taken and will not take, directly or indirectly, any action designed to or which might reasonably be expected to cause or result in, or which has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities, and has not effected any sales of Common Shares which would be required to be disclosed in response to Item 701 of Regulation S-K under the Securities Act if applicable to the Company which have not been so disclosed in the Registration Statement.

(I) Other than as contemplated by this Agreement, the Company will not incur any liability for any finder's or broker's fee or agent's commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

(m) During the Prospectus Delivery Period, the Company will file with the Commission such periodic and special reports as required by the Rules and Regulations and with the Canadian securities regulatory authorities such continuous disclosure documents as required by Canadian Securities Laws.

(n) The Company will maintain such controls and other procedures, including without limitation those required by Sections 302 and 906 of the Sarbanes-Oxley Act and the applicable regulations thereunder, that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act and under Canadian Securities Laws is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms and applicable Canadian Securities Laws, including without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive officer and its principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required

disclosure, to ensure that material information relating to the Company is made known to them by others within those entities.

(o) The Company will comply with all applicable provisions of the Sarbanes-Oxley Act.

(p) The Company represents and agrees that, unless it obtains or obtained the prior written consent of the Underwriter, it has not made and will not make any offer relating to the Securities that would constitute an "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405 under the Securities Act, required to be filed with the Commission; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the free writing prospectuses included in Schedule II. Any such free writing prospectus consented to by the Company and the Underwriter is hereinafter referred to as a *"Permitted Free Writing Prospectus."* The Company represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record keeping. The Underwriter represents and agrees that, unless it obtains or obtained the prior written consent of the Company, it has not made and will not make any offer relating to the Securities that would constitute an "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405 under the Securities Act, required to be filed with the Commission.

(q) Following completion of the Company's fiscal year ending December 31, 2014, the Company shall make a determination as to whether it was a "passive foreign investment company" within the meaning of Section 1297(a) of the Code, for the preceding fiscal year, including any qualifications, and the Company shall promptly report such determination in the next filing of an annual report with the SEC. If the Company has determined that it was a "passive foreign investment company" during such fiscal year, if requested by a shareholder, the Company shall provide such shareholder with the necessary information to make a "qualified electing fund" election as defined under the Code; provided, however, that nothing in this Section 4Cr) shall be interpreted as an undertaking to not qualify as a "passive foreign investment company."

5. ***Conditions of Underwriter's Obligations***. The obligations of the Underwriter hereunder are subject to the accuracy, as of the date hereof and at each of the First Closing Date and the Second Closing Date (as if made at such closing date), of and compliance with all representations, warranties and agreements of the Company contained herein, to the performance by the Company of its obligations hereunder and to the following additional conditions:

(a) The Company is relying upon the rules and procedures established pursuant to the Canadian Shelf Procedures. The Canadian Preliminary Base Prospectus and the Canadian Base Prospectus have been filed with the Qualifying Authorities and a Passport Decision Document has been issued relating to the Canadian Preliminary Base Prospectus and the Canadian Base Prospectus, respectively, and has not been revoked. The Canadian Final Prospectus Supplement shall have been filed with the Reviewing Authority within the applicable time period prescribed hereby and in accordance with the Canadian Shelf Procedures; all other steps or proceedings shall have been taken that may be necessary in order to qualify the Securities for distribution in accordance with the terms of this Agreement; and no order suspending the distribution of the Securities shall have been issued by any of the Qualifying Authorities and no proceedings for that purpose shall have been instituted or threatened, and any request on the part of any Qualifying Authority for additional information shall have been complied with to the reasonable satisfaction of counsel to the Underwriter.

(b) The Company shall have filed the U.S. Final Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus required to be filed under the Securities Act or the Rules and Regulations with the Commission in accordance with General Instruction 11.L of Form F-10 or as otherwise required and within the time period so required; the Registration Statement shall remain effective; no stop order suspending the effectiveness of the Registration Statement or any part thereof, any Upsizing Registration Statement, or any amendment thereof, nor suspending or preventing the use of the Time of Sale Disclosure Package, the U.S. Final Prospectus or any Issuer Free Writing Prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or threatened; and any request of the Commission for additional information (to be included in the Registration Statement, the Time of Sale Disclosure Package, the U.S. Final Prospectus, any Issuer Free Writing Prospectus or otherwise) shall have been complied with to the satisfaction of the Underwriter.

(c) The Underwriter shall not have reasonably determined and advised the Company that (i) the Registration Statement or any amendment thereof or supplement thereto, or the Canadian Final Prospectus, contains an untrue statement of a material fact which, in the opinion of counsel to the Underwriter, is material or omits to state a material fact which, in the opinion of counsel to the Underwriter, is required to be stated therein or necessary to make the statements therein not misleading, or (ii) the Time of Sale Disclosure Package or the Final Prospectuses, or any amendment thereof or supplement thereto, or any Issuer Free Writing Prospectus contains an untrue statement of fact which, in the opinion of counsel to the Underwriter, is material, or omits to state a fact which, in the opinion of counsel to the Underwriter, is material and is required to be stated therein, or necessary to make the statements therein, in the light of the circumstances under which they are made, not misleading.

(d) Except as contemplated in the Time of Sale Disclosure Package and in the Final Prospectuses, subsequent to the respective dates as of which information is given in the Time of Sale Disclosure Package, the Company shall not have incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock; and there shall not have been any change in the capital stock (other than a change in the number of outstanding Common Shares due to the issuance of shares upon the exercise of outstanding options or warrants), or any material change in the short-tenn or long-term debt of the Company, or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock of the Company, or any Material Adverse Change or any development reasonably likely to result in a Material Adverse Change (whether or not arising in the ordinary course of business), that, in the judgment of the Underwriter, makes it impractical or inadvisable to offer or deliver the Securities on the terms and in the manner contemplated in the Time of Sale Disclosure Package and in the U.S. Final Prospectus.

(e) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriter, the opinion of Farris, Vaughan, Wills & Murphy LLP, Canadian counsel for the Company, dated such closing date and addressed to the Underwriter, in form and substance reasonably satisfactory to the Underwriter.

(t) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriter, the opinion of Dorsey & Whitney LLP, U.S. counsel for the Company, dated such closing date and addressed to the Underwriter, in form and substance reasonably satisfactory to the Underwriter.

(g) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriter, the opinion of Viksnins, Harris & Padys PLLP, intellectual property counsel for the Company, dated such closing date and addressed to the Underwriter, in form and substance reasonably satisfactory to the Underwriter.

(h) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriter, the opinion of Kilpatrick Townsend & Stockton LLP, intellectual property counsel for the Company, dated such closing date and addressed to the Underwriter, in form and substance reasonably satisfactory to the Underwriter.

(i) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriter, the negative assurance letter of Goodwin Procter LLP, counsel for the Underwriter, dated such closing date and addressed to the Underwriter, in form and substance reasonably satisfactory to the Underwriter.

(j) On the date of this Agreement, the First Closing Date and the Second Closing Date, as the case may be, the Underwriter shall have received a letter of KPMG LLP, dated such date and addressed to the Underwriter, confirming that they are independent public accountants within the meaning of the Securities Act, are in compliance with the applicable requirements relating to the qualifications of accountants under Rule 2-01 of Regulation S-X of the Commission, are in good standing with the Canadian Public Accountability Board and stating, as of the date of such letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Time of Sale Disclosure Package, as of a date not prior to the date hereof or more than five days prior to the date of such letter), the conclusions and findings of said firm with respect to the financial information and other matters covered by its letter delivered to the Underwriter· concurrently with the execution of this Agreement, and the effect of the letter so to be delivered on the First Closing Date and the Second Closing Date, as the case may be, shall be to confirm the conclusions and findings set forth in such prior letter.

(k) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriter, a certificate, dated such closing date and addressed to the Underwriter, signed by the chief executive officer and by the chief financial officer of the Company, to the effect that:

(i) The representations and warranties of the Company in this Agreement are true and correct, as if made at and as of such closing date, and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to such closing date;·

(ii) No stop order, cease trade order or other order suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof or the qualification of the Securities for offering or sale under Canadian Securities Laws, nor suspending or preventing the use of the Time of Sale Disclosure Package, the Final Prospectuses or any Issuer Free Writing Prospectus, has been issued, and no proceeding for that purpose has been instituted or, to their knowledge, is contemplated or threatened by the Commission, any Qualifying Authority or any state, provincial or regulatory body; and

(iii) The signers of said certificate have carefully examined the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectuses, and any amendments thereof or supplements thereto,. and

(A) the Registration Statement, or any amendment thereof, does not contain and did not contain when such part of the Registration Statement, or any amendment thereof, became effective, any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, except that such statement shall not apply to statements in or

omissions from the Registration Statement, or any amendment thereof, based upon and in conformity with written information furnished to the Company by the Underwriter specifically for use therein, and the Final Prospectuses, as amended or supplemented, does not include and did not include as of its date or the time of first use within the meaning of the Rules and Regulations, any untrue statement of material fact or omit to state and did not omit to state as of its date or the time of first use within the meaning of the Rules and Regulations a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, except that such statement shall not apply to statements in or omissions from the Final Prospectuses, as amended or supplemented, based upon and in conformity with written information furnished to the Company by the Underwriter specifically for use therein,

(B) At the time of filing thereof with the applicable Qualifying Authorities and at the First Closing Date and the Second Closing Date, the Canadian Preliminary Prospectus and the Canadian Final Prospectus (and any further amendments or supplements thereto, including any Supplementary Material) constituted and will constitute full, true and plain disclosure of all material facts relating to the Securities and the Company and its Subsidiaries, taken as a whole, and did not and will not contain a misrepresentation, as defined under Canadian Securities Laws, and did not and will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(C) neither (1) the Time of Sale Disclosure Package nor (2) any individual Issuer Limited-Use Free Writing Prospectus, when considered together with the Time of Sale Disclosure Package, include, nor included as of the Time of Sale any untrue statement of a material fact or omits, or omitted as of the Time of Sale, to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, except that such statement shall not apply to statements in or omissions from the Time of Sale Disclosure Package or any Individual Limited-Use Free Writing Prospectus based upon and in conformity with written information furnished to the Company by the Underwriter specifically for use therein,

(D) since the Time of Sale there has occurred no event required to be set forth in an amended or supplemented prospectus which has not been so set forth,

(E) subsequent to the respective dates as of which information is given in the Registration Statement, the Time of Sale Disclosure Package and Final Prospectuses, the Company has not incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, not in the ordinary course of business, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock, and except as disclosed in the Time of Sale Disclosure Package and in the Final Prospectuses, there has not been any change in the share capital (other than a change in the number of outstanding Common Shares due to the issuance of shares upon the exercise of outstanding options or warrants), or any material change in the short term or long term debt, or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock, of the Company (other than issuances of options under the Company's existing stock option plans) or any Material Adverse Change or any development involving a prospective Material Adverse Change (whether or not arising in the ordinary course of business), and

(F) except as stated in the Registration Statement, the Time of Sale Disclosure Package and in the Final Prospectuses, there is not pending, or, to the knowledge of the Company, threatened or contemplated, any action, suit or proceeding to which the Company is a party before or by any court or governmental agency, authority or body, or any arbitrator, which could reasonably be expected to result in any Material Adverse Change.

(l) The Underwriter shall have received all the Lock-Up Agreements referenced in Section 4(j).

(m) At the First Closing Date, the Securities shall have been duly listed for quotation or trading on the NASDAQ and the TSX (subject only to customary post-closing document delivery requirements).

(n) On the First Closing Date and the Second Closing Date, as the case may be, there shall have been furnished to the Underwriter, a certificate, dated such closing date and addressed to the Underwriter, signed by the chief financial officer of the Company.

(o) The Underwriter shall have received on the First Closing Date a certificate of the secretary of the Company.

(p) The Underwriter shall not have received any unresolved objection from FINRA as to the fairness and reasonableness of the amount of compensation allowable or payable to the Underwriter in connection with the issuance and sale of the Securities.

Prior to the First Closing Date and the Second Closing Date, if applicable, the Underwriter shall have received such further certificates and documentation from the Company as may be contemplated herein as the Underwriter or counsel to the Underwriter may reasonably request; provided, however, that the Underwriter or counsel to the Underwriter shall request any such certificates or other documents within a reasonable period prior to the First Closing Date or Second Closing Date, as applicable, that is sufficient for the Company to obtain and deliver such certificates or documents, and in any event, at least two (2) Business Days prior to the First Closing Date or Second Closing Date, as applicable. The Company will furnish the Underwriter with such conformed copies of such opinions, certificates, letters and other documents as the Underwriter shall reasonably request.

6. Indemnification and Contribution.

(a) The Company agrees to indemnify and hold harmless the Underwriter, its affiliates, directors and officers and each person, if any, who controls the Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities, joint or several, to which the Underwriter may become subject, under the Securities Act, Canadian Securities Laws or otherwise (including in settlement of any litigation if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including any information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to the Rules and Regulations, if applicable, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses, or any amendment or supplement thereto, any Issuer Free Writing Prospectus or in any materials or information provided to investors by, at the instruction of, the Company in connection with the marketing of the offering of the Common Shares *("Marketing Materials"),* including any roadshow or investor presentations made to investors by the Company (whether in person or electronically), or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, with respect only to any Preliminary Prospectus, the Time of Sale Disclosure Package, the Final Prospectuses, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus or Marketing Materials, in light of the circumstances under which they were made, not misleading, and will reimburse the Underwriter for any legal or other expenses reasonably incurred by them in connection with investigating or defending against such loss, claim, damage, liability or action as such expenses are incurred; *provided, however,* that the Company shall not be liable in any such case to the extent that any such loss, claim,

damage, liability or action arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses, or any such amendment or supplement, any Issuer Free Writing Prospectus or in any Marketing Materials, in reliance upon and in conformity with information provided in writing to the Company by the Underwriter specifically for use therein; it being understood and agreed that the only such information furnished by the Underwriter consists of the information described as such in Section 6(f). To the extent that any reimbursement payment is so held to have been improper, the Underwriter that received such payment shall promptly return it to the party or parties that made such payment.

(b) The Underwriter will indemnify and hold harmless the Company, its affiliates, directors and officers and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities to which the Company may become subject, under the Securities Act, Canadian Securities Laws or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Underwriter), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses, or any such amendment or supplement, or any Issuer Free Writing Prospectus in reliance upon and in conformity with information provided in writing to the Company by the Underwriter specifically for use therein; it being understood and agreed that the only such information furnished by the Underwriter consists of the information described as such in Section 6(f), and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending against any such loss, claim, damage, liability or action as such expenses are incurred.

(c) Promptly after receipt by an indemnified party under Section 6(a) or 6(b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure. In case any such action shall be brought against any indemnified party, and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently

incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation; provided, however, that if, in the judgment of counsel to the Underwriter, it is advisable for the Underwriter to be represented by separate counsel, the Underwriter shall collectively have the right to employ a single counsel (in addition to local counsel) to represent the Underwriter who may be subject to liability arising from any claim in respect of which indemnity may be sought by the Underwriter under subsection (a) of this Section 6, in which event the reasonable fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the Underwriter as incurred. An indemnifying party shall not be obligated under any settlement agreement relating to any action under this Section 6 to which it has not agreed in writing. In addition, no indemnifying party shall, without the prior written consent of the indemnified party (which consent shall not be unreasonably withheld or delayed), effect any settlement of any pending or threatened proceeding unless such settlement includes an unconditional release of such indemnified party for all liability on claims that are the subject matter of such proceeding and does not include a statement as to, or an admission of, fault, culpability or a failure to act by or on behalf of an indemnified party.

(d) If the indemnification provided for in this Section 6 is unavailable or insufficient to hold harmless an indemnified party under Section 6(a) or 6(b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in Section 6(a) or 6(b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriter on the other from the offering of the Securities or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the Underwriter on the other in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriter on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriter, in each case as set forth in the table on the cover page of the U.S. Final Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriter and the parties' relevant intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Underwriter agree that it would not be just and equitable if contributions pursuant to this Section 6(d) were to be determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the first sentence of this Section 6(d). The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this Section 6(d) shall be deemed to include any legal or other expenses reasonably incurred by such · indemnified party in connection with investigating or defending against any action or claim which is the subject of this Section 6(d). Notwithstanding the provisions of this Section 6(d), the Underwriter shall not be required to contribute any amount in excess of the amount by which the total price at which the Securities underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages that the Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission.No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(e) The obligations of the Company under this Section 6 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to each person, if any, who controls the Underwriter within the meaning of the Securities Act; and the obligations of the Underwriter under this Section 6 shall be in addition to any liability that the

Underwriter may otherwise have and shall extend, upon the same terms and conditions, to each director of the Company (including any person who, with his consent, is named in the Registration Statement as about to become a director of the Company), to each officer of the Company who has signed the Registration Statement and to each person, if any, who controls the Company within the meaning of the Securities Act.

(f) The Underwriter confirms and the Company acknowledges that the statements with respect to the public offering of the Securities by the Underwriter set forth in the first paragraph under the caption "Underwriting - Commissions and Discounts", the paragraph under the caption "Underwriting - Passive Market Making" and the paragraphs under the caption "Underwriting - Short Sales, Stabilizing Transactions and Penalty Bids" in the Time of Sale Disclosure Package and in the Final Prospectuses are correct and constitute the only information concerning the Underwriter furnished in writing to the Company by the Underwriter specifically for use in the Registration Statement, any Preliminary Prospectuses, the Time of Sale Disclosure Package, the Final Prospectuses or any Issuer Free Writing Prospectus.

7. ***Representations and Agreements to Survive Delivery***. All representations, warranties, and agreements of the Company herein or in certificates delivered pursuant hereto, including but not limited to the agreements of the Underwriter and the Company contained in Section 6 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Underwriter or any controlling person thereof, or the Company or any of its officers, directors, or controlling persons, or any controlling person thereof, and shall survive delivery of, and payment for, the Securities to and by the Underwriter hereunder.

8. ***Termination of this Agreement***.

(a) The Underwriter shall have the right to terminate this Agreement by giving notice to the Company as hereinafter specified at any time at or prior to the First Closing Date, and the option referred to in Section 3(b), if exercised, may be cancelled at any time prior to the Second Closing Date, if (i) the Company shall have failed, refused or been unable, at or prior to such closing date, to perform any agreement on its part to be performed hereunder, (ii) any other condition of the Underwriter's obligations hereunder is not fulfilled, (iii) trading on the NASDAQ or TSX, shall have been suspended, (iv) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the NASDAQ or TSX, by such Exchange or by order of the Commission or any other Governmental Authority having jurisdiction, (v) a banking moratorium shall have been declared by U.S. federal, Canadian federal or state authorities, or (vi) there shall have occurred any outbreak or escalation of hostilities, any change in financial markets or any calamity or crisis that, in the Underwriter's judgment, is material and adverse and makes it impractical or inadvisable to proceed with the completion of the sale of and payment for the Securities. Any such termination shall be without liability of any party to any other party except that the provisions of Section 4(g) and Section 6 hereof shall at all times be effective and shall survive such termination.

(b) If the Underwriter elects to terminate this Agreement as provided in this Section 8, the Company shall be notified promptly by the Underwriter by telephone, confirmed by letter.

9. ***Default by the Company***. If the Company shall fail at the First Closing Date to sell and deliver the number of Securities which it is obligated to sell hereunder, then this Agreement shall terminate without any liability on the part of the Underwriter or, except as provided in Section 4(g) and Section 6 hereof, any non-defaulting party. No action taken pursuant to this Section 9 shall relieve the Company from liability, if any, in respect of such default.

10. ***Notices***. Except as otherwise provided herein, all communications hereunder shall be in writing and, if to the Underwriter, shall be mailed or delivered to Leerink Partners LLC, One Federal Street, 37th Floor, Boston, Massachusetts 021 10, Attention: Legal Department (facsimile: (714) 755- 8290), with a copy to Syndicate (facsimile: (617) 918-4900); and if to the Company, shall be mailed or delivered to the address of the Company set forth in the Registration Statement, Attention: Secretary. Any such communications shall take effect upon receipt thereof. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

11. ***Agent for Service; Submission to Jurisdiction;*** *Waiver of Immunities,* By the execution and delivery of this Agreement, the Company (a) acknowledges that it has, by separate written instrument, irrevocably designated and appointed National Registered Agents, Inc. (or any successor) (together with any successor, the *"Agent/or Service"),* as its authorized agent upon which process may be served in any suit or proceeding arising out of or relating to this Agreement or the Securities, that may be instituted in any U.S. federal or state court in the State of New York, or brought under federal or state securities laws, and acknowledges that the Agent for Service has accepted such designation, (b) submits to the jurisdiction of any New York state or U.S. federal court located in the Borough of Manhattan, the City of New York, New York, in any suit or proceeding arising out of or related to this Agreement, and

(c) agrees that service of process upon the Agent for Service (or any successor) and written notice of said service to the Company (mailed or delivered to National Registered Agents, Inc. at 1780 Barnes Blvd. S.W., Bldg. G, Tumwater, Washington 98512-0410), shall be deemed in every respect effective service of process upon the Company in any such suit or proceeding. The Company further agrees to take any and all action, including the execution and filing of any and all such documents and instruments, as may be necessary to continue such designation and appointment of the Agent for Service in full force and effect so long as any of the Securities shall be outstanding. To the extent that the Company has or hereafter may acquire any immunity from jurisdiction of any court or from any legal process (whether through service of notice, attachment prior to judgment, attachment in aid of execution, execution or otherwise) with respect to itself or its property, it hereby irrevocably waives such immunity in respect of its obligations under the above-referenced documents, to the extent permitted by law.

12. ***Persons Entitled to Benefit of Agreement***. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 6. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term "successors and assigns" as herein used shall not include any purchaser, as such purchaser, of any of the Securities from the Underwriter.

13. Absence of Fiduciary Relationship. The Company acknowledges and agrees that: (a) the Underwriter has been retained solely to act as underwriter in connection with the sale of the Securities and that no fiduciary, advisory or agency relationship between the Company and the Underwriter has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Underwriter has advised or is advising the Company on other matters; (b) the price and other terms of the Securities set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Underwriter and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Underwriter and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Underwriter has no obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; (d) it has been advised that the Underwriter is acting, in respect of the transactions contemplated by this Agreement, solely for the benefit

of the Underwriter and not on behalf of the Company; (e) it waives to the fullest extent permitted by law, any claims it may have against the Underwriter for breach of fiduciary duty or alleged breach of fiduciary duty in respect of any of the transactions contemplated by this Agreement and agrees that the Underwriter shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

14. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to principles of conflict of laws.

15. ***Counterparts.*** This Agreement may be executed in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument.

16. General Provisions This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

[Signature Page Follows]

If the foregoing is in accordance with your understanding, please sign and return to us, and upon the acceptance hereof by the Underwriter, this Agreement and such acceptance hereof shall constitute a binding agreement between the Underwriter and the Company.

Very truly yours,

TEKMIRA PHARMACEUTICALS CORPORATION

Per: /s/ Mark J. Murray
Mark J. Murray, President and CEO

Accepted as of the date hereof at San Francisco, California:

LEERINK PARTNERS LLC

By: Per: /s/ **Bryan Giraudo**
Title: Managing Director

SCHEDULE I

Pricing Information

Number of Firm Shares to be Issued: 2,125,000

Offering Price: US$28.50 per share

Underwriting Discounts and Commissions: 6.0%

Number of Option Shares: 318,750

SCHEDULE II

Issuer General Free Writing Prospectuses

None.

SCHEDULE III

Officers and Directors Subject to Lockup

Bruce Cousins
Mark J. Murray
Mark Kowalski
Michael Abrams
Kenneth Galbraith
Donald Jewell
Frank Karbe
Daniel Kisner
Peggy Phillips
Ian MacLachlan
Hector MacKay-Dunn

EXHIBIT A

Form of Lockup Agreement

March _, 2014

Leerink Partners LLC
One Federal Street, 37th Floor
Boston, Massachusetts 02110
Re: Offering of Common Shares of Tekmira Phannaceuticals Corporation Ladies and Gentlemen:

The undersigned understands that you, as underwriter (the ***"Underwriter"),*** propose to enter into an Underwriting Agreement with Tekmira Pharmaceuticals Corporation, a British Columbia corporation (the ***"Company"),*** providing for an offering of common shares (the ***"Shares"),*** without par value, of the Company (the ***"Common Shares"),*** pursuant to a Registration Statement on Form F-10 filed with the Securities and Exchange Commission (the ***"SEC").***

In consideration of the agreement by the Underwriter to offer and sell the Shares, and of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned agrees that, during the period specified in the following paragraph (the *"Lock-Up Periotf '),* the undersigned will not offer, sell, contract to sell, pledge (except a pledge for the benefit of the Company pursuant to an agreement entered or to be entered into between the Company and the undersigned), grant any option to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, atty Common Shares of the Company, or any options or warrants to purchase any Common Shares of the Company, or any securities convertible into, exchangeable for or that represent the right to receive Common Shares of the Company, whether now owned or hereafter acquired, owned directly by the undersigned (including holding as a custodian) or with respect to which the undersigned has beneficial ownership within the rules and regulations of the SEC (collectively the *"Undersigned's Shares");* provided, however, that during the Lock-Up Period, the undersigned shall be permitted to exercise any options or warrants to purchase common shares of the Company that the undersigned owns directly (including holding as a custodian) or with respect to which the undersigned has beneficial ownership within the rules and regulations of the SEC (the *"Convertible Securities"),* provided that any such shares issued upon exercise of such Convertible Securities shall continue to be subject to the applicable provisions of this Lock-Up Agreement. The foregoing restriction is expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned's Shares even if such Undersigned's Shares would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Undersigned's Shares or with respect to any security that includes, relates to, or derives any significant part of its value from such Undersigned's Shares (regardless of whether any of the transactions described herein is to be settled by delivery of Common Shares of the Company, or such other securities, in cash or otherwise). Further, the undersigned agrees not to make any demand for, or exercise any right with respect to, the registration of any Common Shares of the Company or securities convertible into or exercisable or exchangeable for Common Shares of the Company during the Lock-Up Period.

The initial Lock-Up Period will commence on the date of this Lock-Up Agreement and continue for 90 days after the offering date set forth on the final prospectus used to sell the Shares (the "Offering Date") pursuant to the Underwriting Agreement; provided, however, that if (1) during the last 17 days of the initial Lock-Up Period, the Company releases earnings results or announces material news or a material event or (2) prior to the expiration of the initial Lock-Up Period, the Company announces that it will release earnings results during the 15-day period following the last day of the initial Lock-Up Period, then in each case the Lock-Up Period will be automatically extended until the expiration of the 18-day period beginning on the date of release of the earnings results or the announcement of the material news or material event, as applicable, unless Underwriter waives, in writing, such extension.

The undersigned hereby acknowledges that the Company intends to agree in the Underwriting Agreement to provide written notice of any event that would result in an extension of the Lock-Up Period pursuant to the previous paragraph to the undersigned and agrees that any such notice properly delivered will be deemed to have been given to, and received by, the undersigned. The undersigned hereby further agrees that, prior to engaging in any transaction or taking any other action that is subject to the terms of this Lock-Up Agreement during the period from the date of this Lock-Up Agreement to and including the 34th day following the expiration of the initial Lock-Up Period, it will give notice thereof to the Company and will not consummate such transaction or take any such action unless it has received written confirmation from the Company that the Lock-Up Period (as such may have been extended pursuant to the previous paragraph) has expired.

Notwithstanding the foregoing, the undersigned may transfer the Undersigned's Shares (i) pursuant to a bonafide take-over bid made to all holders of common shares of the Company or similar acquisition transaction provided that in the event that the take-over or acquisition transaction is not completed, any securities shall remain subject to the restrictions contained in this Lock-Up Agreement; (ii) as a bonafide gift or gifts, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein, (iii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, or (iv) with the prior written consent of the Underwriter. For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin. The undersigned now has, and, except as contemplated by clause (i), (ii), (iii) or (iv) above, for the duration of this Lock-Up Agreement will have, good and marketable title to the Undersigned's Shares, free and clear of all liens, encumbrances and claims whatsoever. The undersigned agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Undersigned's Shares except in compliance with the foregoing restrictions.·

The undersigned understands that the Company and the Underwriter are relying upon this Lock-Up Agreement in proceeding toward consummation of the offering. The undersigned hereby represents and warrants that it has full power and authority to enter into this Lock-Up Agreement and that upon request, the undersigned will execute any additional documents reasonably necessary or desirable in connection with the enforcement hereof. The undersigned further understands that this Lock-Up Agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representatives, successors, and assigns.

This Lock-Up Agreement shall lapse and become null and void upon notice from the Company to the Underwriter that the Company does not intend to proceed with the offering or wishes to terminate the engagement of the Underwriter as underwriter of the offering.

Very truly yours,

_____
Exact Name of Shareholder

_____
Authorized Signature

_____
Title

Exhibit 21.1

Tekmira Pharmaceuticals Corporation

List of Subsidiaries

Name	Date on which the entity became Tekmira's wholly owned sub	Jurisdiction
Protiva Biotherapeutics Inc.	May 30, 2008	British Columbia, Canada
Protiva Biotherapeutics (USA), Inc.	May 30, 2008	Delaware, United States of America
Protiva Agricultural Development Company Inc.	Jan. 9, 2014	British Columbia, Canada
OnCore Biopharma, Inc.	Mar. 4, 2015	Delaware, United States of America
Enantigen Therapeutics, Inc.	Mar. 4, 2015	Delaware, United States of America

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Tekmira Pharmaceuticals Corporation

We consent to the incorporation by reference in the registration statement on Form S-3 (No. 333-200625) and registration statement on Form S-8 (No. 333-186185) of Tekmira Pharmaceuticals Corporation of our reports dated March 12, 2015, with respect to the consolidated balance sheets of Tekmira Pharmaceuticals Corporation as of December 31, 2014 and 2013, and the related consolidated statements of operations and comprehensive income (loss), stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2014, and the effectiveness of internal control over financial reporting as of December 31, 2014, which reports appear in the December 31, 2014 annual report on Form 10-K of Tekmira Pharmaceuticals Corporation.

/s/ KPMG LLP
Chartered Accountants

Vancouver, Canada
March 12, 2015

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14 OR 15d-14 OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Mark J. Murray, certify that:

1. I have reviewed this Form 10-K Tekmira Pharmaceuticals Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 13, 2015

/s/ Mark J. Murray

Name: Mark J. Murray
Title: President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14 OR 15d-14 OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Bruce Cousins, certify that:

1. I have reviewed this Form 10-K of Tekmira Pharmaceuticals Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 13, 2015

/s/ Bruce Cousins

Name: Bruce Cousins
Title: Executive Vice President, Finance and Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Tekmira Pharmaceuticals Corporation (the "Company") on Form 10-K for the year ended December 31, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I Mark J. Murray, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: March 13, 2015

/s/ Mark J. Murray
Name: Mark J. Murray
Title: President and Chief Executive Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Tekmira Pharmaceuticals Corporation (the "Company") on Form 10-K for the year ended December 31, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I Bruce Cousins, Executive Vice President, Finance and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: March 13, 2015

/s/ Bruce Cousins

Name: Bruce Cousins
Title: Executive Vice President, Finance and Chief Financial Officer