TEKMIRA PHARMACEUTICALS CORP

FORM 10-K
(Annual Report)

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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, 2013

OR

☐ **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 and The Toronto Stock Exchange

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 ☐ 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 ☐ 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 ☐

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 ☐

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. ☐

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 ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☐

(Do not check if a smaller reporting company)

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

The registrant is a non-accelerated filer as the aggregate market capitalization of voting and non-voting equity held by non-affiliates as at June 30, 2013 was $67,789,985

As of March 21, 2014, the registrant had 21,945,838 Common Shares, no par value, outstanding.

TEKMIRA PHARMACEUTICALS CORPORATION

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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) 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; Gastrointestinal Neuroendocrine Tumors (GI-NET) or Adrenocortical Carcinoma (ACC) enrollment in a Phase I/II clinical trial with TKM-PLK1, and expected interim data from this trial in the second half of 2014; completion of the necessary preclinical work to be in a position to file an Investigational New Drug (IND) application in the second half of 2014 in order to advance TKM-HBV into a Phase I clinical trial, with data available in 2015; the development of TKM-Ebola under the "Animal Rule"; additional funding opportunities for TKM-Marburg; completion of necessary preclinical work to be in a position to file an IND in the second half of 2014 in order to advance TKM-ALDH2 into a Phase I clinical trial; potential government funding sources for new therapeutic strategies for alcohol use disorder and Tekmira's exploration and leveraging of these partnership opportunities; the generation of data and the expectation of identifying another development candidate in 2014; the potential quantum of value of the transactions contemplated in the Monsanto option agreement; arbitration proceedings with Alnylam Pharmaceuticals, Inc. (Alnylam) in connection with ALN-VSP; ongoing advances in next-generation LNP technologies; anticipated royalty receipts based on sales of Marqibo; statements with respect to revenue and expense fluctuation and guidance; 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

Tekmira is a biopharmaceutical company focused on developing RNA interference (RNAi) therapeutics. We are leveraging our extensive drug development and delivery expertise by advancing novel drugs based on our 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 intervention that have not been achievable with conventional drugs. Delivery technology is crucial in order to protect RNAi drugs in the blood stream following administration, allow efficient delivery to the target cells, and facilitate cellular uptake and release into the cytoplasm of the cell. Tekmira's proprietary LNP delivery platform represents the most widely adopted delivery technology in RNAi, enabling eight clinical trials and administered to well over 200 patients to date.

With both oncology and anti-viral product platforms, augmented by additional metabolic development programs, our RNAi product pipeline is focused on areas where there is a significant unmet medical need and commercial opportunity. Tekmira's clinical development programs include RNAi therapeutics addressing chronic hepatitis B virus infection and unmet cancer indications such as gastrointestinal neuroendocrine tumors and adrenocortical carcinoma. Tekmira's LNP technology also enables our partners' development programs and pipelines, providing us with non-dilutive funding to support our own therapeutic development programs. Because LNP can enable a wide variety of nucleic acid payloads, including messenger RNA, we continue to see 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, we began focusing on developing lipid nanoparticle delivery technology for a class of nucleic acid drugs called RNAi trigger molecules that mediate RNA interference, or RNAi. In 2006, we initiated a research collaboration with Alnylam Pharmaceuticals, Inc. to combine their expertise in RNAi payload or "trigger" technologies with our knowledge of RNAi delivery technology. In January 2007, we entered into a License and Collaboration Agreement with Alnylam where we 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 Tekmira's delivery technology for siRNA and microRNA.

In 2008, we combined our business with that of Protiva Biotherapeutics, Inc. (Protiva). At the time of 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, or LNP, delivery technology for RNAi , a business similar to ours. 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 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 was completed through our acquisition, under a share purchase agreement, of all the then outstanding shares of Protiva in consideration for common shares of Tekmira. Protiva is now our 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 (CDN$5.0 million) with an affiliate of Roche.

Since the completion of the business combination, we have focused on advancing our own collective RNAi therapeutic products and providing our lipid nanoparticle delivery technology to pharmaceutical partners and collaborators.

Recent Development

Completion of Underwritten Public Offering of Common Stock

In March 2014, we completed an underwritten public offering of 2,125,000 shares of our common stock at a price of $28.50 per share for aggregate gross proceeds of $60,562,500, before deducting underwriting discounts and commissions and other estimated offering expenses. Leerink Partners LLC acted as the sole manager for the offering. The underwriter has also been granted a 30-day option to purchase up to an additional 318,750 shares to cover over-allotments, if any, which would result in additional gross proceeds. We anticipate using the net proceeds from this offering to develop and advance product candidates through clinical trials, as well as for working capital and general corporate purposes.

RNA Interference

RNA interference (RNAi) is considered to be one of the most important discoveries in the field of biology in the last decade. The scientists who discovered the mechanism were awarded the 2006 Nobel Prize in Medicine. Intense research activity has subsequently uncovered the complex molecular mechanisms responsible for RNAi that are transforming the way that drug targets are discovered and validated. RNAi is a naturally occurring process that takes place inside cells, and includes processes whereby RNAi profoundly suppress the production of specific proteins. Synthetic RNAi trigger molecules are being developed as drugs that specifically suppress the production of disease-associated proteins through RNAi.

Using the gene sequence coding for the target protein, effective RNAi trigger molecules can be designed.. RNAi -based drugs are typically small synthetic nuclei acid molecules. When RNAi triggers are introduced into the cell they are incorporated into an RNA-induced silencing complex (RISC), which interacts specifically with 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 long periods of time.

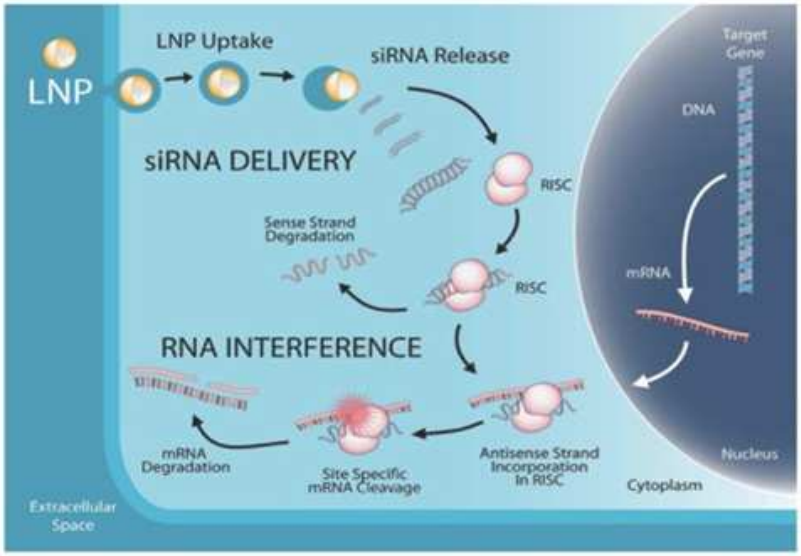
Potential of RNAi Therapeutics

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. While there are no RNAi therapeutics currently approved for commercial use, there are a number of RNAi products currently in human clinical trials. RNAi products are broadly applicable as they can silence, or eliminate the production of disease causing proteins from cells, thus 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 intravenous, or systemic, administration, and their inability to gain entry to the inside of target cells, where they carry out their action. Delivery technology is necessary to protect these drugs in the blood stream following administration, allow efficient delivery to the target cells and facilitate cellular uptake and release into the cytoplasm of the cell.

Tekmira's Lipid Nanoparticle (LNP) Delivery Technology

Tekmira's LNP technology has been shown in pre-clinical studies to enable RNAi therapeutic products by overcoming the limitations of RNAi drug delivery, allowing efficient and selective 'silencing' or reduction of certain target proteins. We believe that Tekmira is strongly positioned to take advantage of the need for delivery technology that can efficiently encapsulate RNAi triggers, and other types of molecules, delivering them to sites of disease. We, along with our partners, are advancing RNAi therapeutic product candidates using our LNP technology as the delivery vehicle to access target tissues and cells.

Our proprietary LNP delivery technology allows RNAi triggers to be encapsulated in a particle made of lipids (fats or oils) that can be administered intravenously and travel through the blood stream to target tissues or sites of disease. The nanoparticles are designed to stay in the circulation for periods of time that allow the particle to efficiently accumulate at sites of disease such as the liver or cancerous tumors. Once the nanoparticles have accumulated at the target site, the cells take up the particle by a process called endocytosis in which the cell's membrane surrounds the particle. This envelope or endosome pinches off from the cell's membrane and migrates to the inside of the cell. The lipid nanoparticles undergo an interaction with the endosomal membrane and in the process the RNAi triggers are released inside the cell. The released RNAi trigger molecules engage the RISC complex, mediating RNAi.

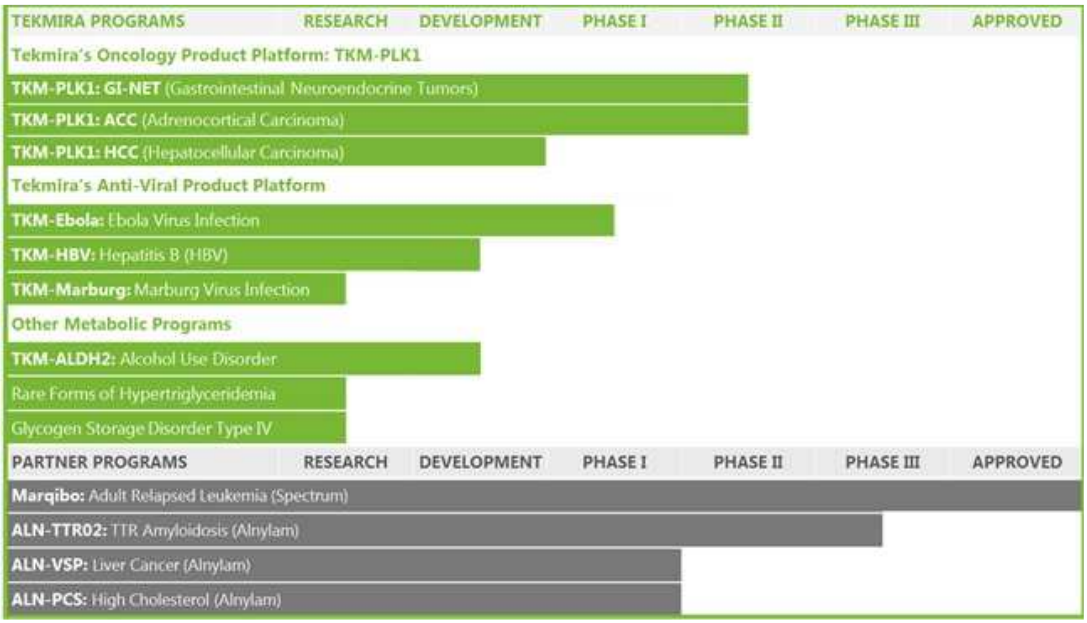


Lipid Nanoparticle (LNP)-Enabled Delivery and Mechanism of RNA Interference in Cells

Today, our LNP technology represents the most widely adopted delivery technology in RNAi, enabling eight clinical trials and administered to over 200 human subjects. Because LNP can enable a wide variety of nucleic acid payloads, including messenger RNA, 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 a scientific symposium demonstrating that mRNA when encapsulated and delivered using Tekmira's LNP technology can be effectively delivered and expressed in liver, tumors and other specific tissues of therapeutic interest.

Our Product Pipeline

With both oncology and anti-viral product platforms, and additional metabolic research and development programs, we are advancing our RNAi product pipeline with a focus on areas where there is a significant unmet medical need and commercial opportunity.



TKM-PLK1

Our oncology product platform, TKM-PLK1, targets polo-like kinase 1 (PLK1), a protein involved in 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.

We presented updated Phase I TKM-PLK1 data at the 6th Annual NET Conference hosted by the North American Neuroendocrine Tumor Society (NA-NETS) held 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 these 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 Adrenocortical Carcinoma (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 Gastrointestinal Neuroendocrine Tumors (GI-NET) patients enrolled, both experienced clinical benefit: one patient had a partial response based on RECIST response 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 these encouraging results from our Phase I TKM-PLK1 clinical trial, we have 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 and tumor biomarkers for GI-NET patients, as well as to continue to further evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1. TKM-PLK1 will be administered weekly with each four-week cycle consisting of three once-weekly doses followed by a rest week. Enrollment is currently underway, and it t is expected that approximately 20 patients with advanced GI-NET or ACC tumors will be enrolled in this trial, with a minimum of 10 GI-NET patients to be enrolled. We expect to report interim data from this trial in the second half of 2014.

In the first half of 2014, we also expect to initiate another Phase I/II clinical trial with TKM-PLK1, enrolling patients with Hepatocellular Carcinoma (HCC). This clinical trial will be 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 HCC patients and measure the anti-tumor activity of TKM-PLK1 in HCC patients.

TKM-HBV

Our extensive experience in the anti-viral RNAi therapeutics arena has been applied to the development of TKM-HBV, an RNAi therapeutic for the treatment of chronic Hepatitis B infection. There are over 350 million people infected globally with Hepatitis B virus (HBV). In the United States there are approximately 1.4 million HBV chronically infected individuals (Source of statistics: CDC – U.S. Centers for Disease Control and Prevention). We are focused on addressing the unmet need of eliminating HBV surface antigen expression in chronically infected patients. Small molecule nucleotide therapy is rapidly becoming the standard of care for chronically HBV infected patients. However, many of these patients continue to express a viral protein called Hepatits B surface antigen. This protein causes inflammation in the liver leading to cirrhosis and in some cases to hepatocellular cancer and death.

TKM-HBV is designed to eliminate surface antigen expression in these chronically infected patients. The rationale is that by blocking surface antigen – and reducing much of the pathology associated with surface antigen expression – this therapy will also allow these patients to undergo 'seroconversion', or raise an immune response, including antibodies against the virus, and effect a functional cure of the infection.

TKM-HBV is being developed as a multi-component RNAi therapeutic cocktail that targets multiple sites on the HBV genome. TKM-HBV therapeutic will employ third generation-LNP that is more potent and has a broader therapeutic index than previous generations of LNP. We anticipate presenting preclinical data in the second half of 2014 in support of filing an Investigational New Drug (IND) or equivalent application by the end of the year. Our goal is to advance TKM-HBV into a Phase I clinical trial in chronically infected HBV patients, with initial data available in 2015.

TKM-Ebola and TKM-Marburg

TKM-Ebola, an anti-Ebola viral therapeutic, is being developed under a contract with the U.S. Department of Defense's (DoD) Joint Project Manager Medical Countermeasure Systems (JPM-MCS). In 2010, our preclinical studies were published in the medical journal *The Lancet* demonstrating that when RNAi triggers targeting the Ebola virus and delivered by Tekmira's 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).

TKM-Ebola is being developed under an FDA regulatory construct referred to as the "Animal Rule." The Animal Rule provides that under certain circumstances, where it is unethical or not feasible to conduct human efficacy studies, the FDA may grant marketing approval 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.

In July 2010, we signed a contract with the DoD under their JPM-MCS program, to advance the TKM-Ebola program. Based on the budget for the extended contract, this would provide us with a total of approximately $140.0 million in funding for the entire program. In May 2013, we announced that our collaboration with the JPM-MCS was modified and expanded to include advances in LNP formulation technology since the initiation of the program in 2010. These contract modifications increased the stage one targeted funding from $34.7 million to $41.7 million. We expect to release data from the single ascending dose portion of this Phase I clinical trial in the second half of 2014.

In January 2014, we commenced a Phase I clinical trial with TKM-Ebola. The trial is a randomized, single-blind, placebo-controlled study involving single ascending doses and multiple ascending doses of TKM-Ebola. The study will assess the safety, tolerability and pharmacokinetics of administering TKM-Ebola to healthy adult subjects. Four subjects will be enrolled per cohort. There are four planned cohorts for a total of 16 subjects in the single dose arm, and three planned cohorts for a total of 12 subjects in the multiple dose arm of the trial. Each cohort will enroll three subjects who receive TKM-Ebola, and one who will receive placebo.

In March 2014, we were granted a Fast Track designation from the U.S. Food and Drug Administration (FDA) for the development of TKM-Ebola. 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.

Like Ebola, Marburg is a member of the filovirus family of hemorrhagic fever viruses, and there are currently no approved therapeutics available for the treatment of Marburg infection. In 2010, Tekmira and University of Texas Medical Branch (UTMB) 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 February 2014, UTMB and Tekmira, along with other collaborators, were awarded additional funding from the NIH in support of this research.

In November 2013, we disclosed data from the collaboration between Tekmira and the UTMB that showed 100% survival in non-human primates infected with the Angola strain of the Marburg virus in two separate studies. In the first study, 100% survival was achieved when dosing at 0.5 mg/kg TKM-Marburg began one hour after infection with otherwise lethal quantities of the virus. Dosing then continued once daily for seven days. In the second study, 100% survival was achieved even though treatment did not begin until 24 hours after infection. 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. Tekmira expects to continue to build on these data and pursue additional funding opportunities or development partnerships for TKM-Marburg.

TKM-ALDH2

In the United States, two million people seek treatment each year for alcohol use disorder, and approximately 350,000 of these patients receive pharmacotherapy for alcohol use disorder (Source of statistics: Defined Health , 2013). TKM-ALDH2 will be developed for a clearly defined high value segment of the alcohol use disorder market, with a target patient population who have moderate to severe alcohol use disorder, such as educated professionals who have social support and are motivated to seek treatment.

TKM-ALDH2 has been designed to knock down or silence the ALDH2 enzyme to induce long term acute sensitivity to ethanol. Aldehyde dehydrogenase 2 (ALDH2) is a key enzyme in ethanol metabolism. Inhibition of aldehyde dehydrogenase 2 activity, through the silencing of ALDH2, results in the build-up of acetaldehyde. Elevated levels of acetaldehyde are responsible for the adverse physiological effects that cause individuals to avoid alcohol consumption. We have developed an extremely potent RNAi trigger and combined it with a third generation LNP. Human proof of concept for ALDH2 inhibition already exists in the form of the approved drug disulfiram. However, disulfiram's efficacy suffers from poor compliance because it has to be taken daily. We believe that a once-monthly dose of TKM-ALDH2 could induce prolonged ethanol sensitivity, thus overcoming the patient compliance issues associated with the daily dosing of other treatments.

We anticipate completing the necessary preclinical work to be in a position to file an IND in the second half of 2014 in order to advance TKM-ALDH2 into a Phase I clinical trial in healthy volunteers. It is expected that proof-of-concept with alcohol challenge including ALDH2 knockdown, acetaldehyde build up and ethanol toxicity can be obtained in the Phase I clinical trial with data available in 2015. Because alcohol use disorder represents a significant public health problem, we believe there are government funding sources seeking to support new therapeutic strategies, and Tekmira will be exploring and leveraging these partnering opportunities.

Additional Discovery Programs

We are currently evaluating several additional preclinical candidates with potential in diverse therapeutic areas using key criteria to prioritize efforts. Given the extremely high efficiency of delivery for third generation liver-centric LNP formulations, we are focused on rare diseases where the molecular target is found in the liver, where early clinical proof-of-concept can be achieved and where there may be accelerated development opportunities. Two areas of interest are glycogen storage diseases and rare forms of hypertriglyceridemia. Our research team intends to continue to generate preclinical data to support the advancement of the most promising of these targets, and we expect to be in a position to identify another development candidate in 2014.

Other Partner-Based Programs

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), which is enabled by our LNP technology. In December 2013, Alnylam announced the initiation of the APOLLO Phase III trial of patisiran, with the study now open for enrollment, to evaluate efficacy and safety of patisiran in ATTR patients with Familial Amyloidotic Polyneuropathy (FAP). Alnylam also has two other LNP-based products in clinical development: ALN-VSP (liver cancer), and ALN-PCS02 (hypercholesterolemia). Alnylam will pay us 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®, 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. has two ongoing Phase III trials evaluating Marqibo in additional indications. In September 2013, Spectrum launched Marqibo through its existing hematology sales force in the United States and shipped the first commercial orders. We are entitled to mid-single digit royalty payments based on Marqibo's commercial sales. More information about our licensing agreement with Spectrum can be found under the "Strategic Alliances, Licensing Agreements, and Research Collaborations" section of this report.

Ongoing Advancements in LNP Technology

We continue to develop our proprietary "gold standard" 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. Our LNP technology remains an important cornerstone of our business development activities moving forward. Because LNP can enable a wide variety of nucleic acid payloads, including messenger RNA, we continue to see new product development and partnering opportunities based on our industry-leading delivery expertise. In February 2014, we presented new preclinical data at a the AsiaTIDES scientific symposium in Tokyo, Japan demonstrating that messenger RNA (mRNA) can be effectively delivered and expressed in liver, tumors when encapsulated and delivered using Tekmira's LNP technology.

Strategic Alliances, Licensing Agreements, and Research Collaborations

Since inception, Tekmira has 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 JPM-MCS Office, Monsanto, and other undisclosed pharmaceutical and biotechnology companies.

We have certain rights under the RNAi intellectual property of Alnylam Pharmaceuticals, Inc. to develop thirteen 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.

Alnylam Pharmaceuticals, Inc. and Acuitas Therapeutics Inc.

In November 2012, we, Alnylam, and and AlCana Technologies, Inc. (now Acuitas Therapeutics Inc.) entered into an agreement to settle all litigation and 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 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, and Acuitas has agreed that it will not compete in the RNAi field for a period of 5 years.

As a result of settlement and 2012 cross-license agreement, Tekmira 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 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, to Tekmira. As a result, we own and control prosecution of this intellectual property portfolio. Tekmira is the only company able to sublicense LNP intellectual property in future platform-type relationships. Alnylam has a license to use our intellectual property 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 based on commercial sales of Alnylam's LNP-enabled products. Alnylam currently has three LNP-based products in clinical development: ALN-TTR02 (patisiran), ALN-VSP, and ALN-PCS02.

The 2012 cross-license agreement with Alnylam also grants us intellectual property 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 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, 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 Tekmira's 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 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 from Alnylam related to its ALN-VSP product. We have not recorded any revenue in respect of this milestone.

Spectrum Pharmaceuticals, Inc.

In July 2013, Talon Therapeutics Inc. (formerly Hana Biosciences, Inc.) was acquired by Spectrum Pharmaceuticals, Inc. Under a legacy license agreement, Spectrum has an exclusive license to three targeted chemotherapy products originally developed by Tekmira. 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 future expenses.

We are eligible to receive milestone payments from Spectrum of up to $18.0 million upon achievement of further development and regulatory milestones and, we will also receive single-digit royalties based on product sales. If Spectrum sublicenses any of the product candidates, Tekmira is eligible to receive a percentage of any upfront fees or milestone payments received by Spectrum. Depending on the royalty rates Spectrum receives from its sublicensees, our royalty rate may be lower on product sales by the sublicensees. 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, our licensee, Spectrum Pharmaceuticals, Inc. launched Marqibo® through its existing hematology sales force in the United States and has shipped the first commercial orders. We are entitled to mid-single digit royalty payments based on Marqibo's commercial sales.

Monsanto Company

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 up to $86.2 million following the successful completion of milestones. In January 2014, we received $14.5 million of the net $16.5 million in anticipated near term payments.

Marina Biotech, Inc./Arcturus Therapeutics, Inc.

On November 29, 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 Therapeutics, Inc., 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.

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

As a result of the business combination 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 $17.0 million in milestones for each product they develop covered by Protiva's intellectual property, 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 the Company to certain of its patents. On January 12, 2014, Alnylam announced that they will be acquiring certain assets license from Merck which may include the license agreement, in which case, it will transfer to Alnylam.

Bristol-Myers Squibb Company (BMS)

In May 2010 we announced the expansion of our ongoing research collaboration with BMS. Under the new agreement, BMS will use RNAi trigger molecules formulated by us in LNPs to silence target genes of interest. BMS will conduct the preclinical work to validate the function of certain genes and share the data with us. We can use the preclinical data to develop RNAi therapeutic drugs against the therapeutic targets of interest. BMS paid us $3.0 million concurrent with the signing of the agreement. We are required to provide a predetermined number of LNP batches over the four-year agreement. BMS will have a first right to negotiate a licensing agreement on certain RNAi products developed by us that evolve from BMS validated gene targets. In May 2011, we announced a further expansion of the collaboration to include broader applications of our LNP technology and additional target validation work. Recognition of revenue from agreements with BMS is covered in the Revenue section of this MD&A.

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 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. At December 31, 2013 the remaining balance of Tekmira's portion of the grant was $0.04 million. In February 2014, UTMB and Tekmira, along with other collaborators, were awarded additional funding from the NIH in support of this research.

Halo-Bio RNAi Therapeutics, Inc.

On August 24, 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 the 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

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. Aradigm has asserted that it is not using our technology in its current products, and we have now terminated the Aradigm license agreement.

University of British Columbia

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 2006 and 2007. We have granted sublicenses under the UBC license to Alnylam as well as to Talon. Alnylam has in turn sublicensed 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.

Patents and Proprietary Rights

In addition to the expertise we have developed and maintain in confidence, 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 European Patent Office that have been granted. 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.

Tekmira has 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 and 8,492,359; 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 March 24, 2014.

* 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.

Employees

At March 21, 2014, we had 92 employees, 74 of whom were engaged in research and development. None of our employees are represented by a labor union or covered by a collective bargaining agreement, nor have we experienced work stoppages. We believe that relations with our employees are good.

Corporate information

The company is comprised of four entities, Tekmira Pharmaceuticals Corporation ("Tekmira" or "we" or "us") and three wholly owned subsidiaries (Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Protiva Biotherapeutics U.S.A. 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 U.S.A. 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.

Our head office and principal place of business is located at 100—8900 Glenlyon Parkway, Burnaby, British Columbia, Canada, V5J 5J8 (telephone: (604) 419-3200). Our registered and records office is located at 700 West Georgia St, 25th Floor, Vancouver, British Columbia, Canada, V7Y 1B3.

Investor information

We are a reporting issuer in Canada under the securities laws of each of the Provinces of Canada. Our common shares trade on Toronto Stock Exchange under the symbol "TKM" and, since November 15, 2010, on the NASDAQ Global Market under the symbol "TKMR." We are currently a foreign reporting issuer for SEC reporting purposes. However, in order to be more easily compared to our principal competitors, commencing with this Form 10-K filing, we will be filing annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, with the SEC, as if we were a U.S. domestic issuer.

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. 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), there is a limited amount of information about us upon which you can evaluate our RNAi business and prospects.

We have not begun to market or generate revenues from the commercialization of any RNAi products. We have only a limited history upon which one can evaluate our RNAi business and prospects as our RNAi 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 product development activities using an unproven technology;
- 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 on RNAi technology, and our future success depends in part on the successful development of 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.

Further, our focus solely on RNAi technology for developing products, as opposed to multiple, more proven technologies for product development, increases our risks. If we are not successful in developing a product candidate using RNAi technology, 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 on our existing and new 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, 2013. 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 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 $41.7 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 partie s.

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, and Monsanto;
- 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, 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
- 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, 2012 and have not received any revenues other than from research and development collaborations, license fees and milestone payments. From inception to December 31, 2013, we have an accumulated net deficit of $167.0 (C$243.4) 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 were to 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.

Our independent auditors have not assessed our internal control over financial reporting. If 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.

As disclosed in Item 7 of our annual report on Form 10-K for the fiscal year ended December 31, 2013, our management has evaluated, and provided a report with respect to, the effectiveness of our internal control over financial reporting as of December 31, 2013. However, because we are a "non-accelerated filer" within the meaning of Rule 12b-2 under the Exchange Act, our independent auditors are not required to assess our internal control over financial reporting or to provide a report thereon. Although our management has determined that our internal control over financial reporting was effective as of the evaluation date, there can be no assurance that our independent auditors would agree with our management's conclusion. Furthermore, if our market capitalization, excluding affiliated stockholders, at June 30 of any fiscal year is greater than $75 million, then we will be required to obtain independent auditor certification on the adequacy of our internal control over financial reporting for that fiscal year. Given our current market capitalization, we are preparing for an independent audit of our internal control over financial reporting for our fiscal year ending December 31, 2014. 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.

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
- the 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.

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 the RNAi field.

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 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.

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 RNAi 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 RNAi 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.

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 Boehringer Ingelheim, 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 hemorrhagic fever viruses, such as Sarepta Therapeutics, Inc. 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 safety and effectiveness of our products;

- the ease with which our products can be administered and the extent to which patients and physicians accept new routes of administration;
- the timing and scope of regulatory approvals for these products;
- the 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 noncompetitive, 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 triggerss to the relevant cell and tissue types. Our competitors may develop safer and more effective means to deliver RNAi triggerss 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 triggerss 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.

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 and the TSX exchanges. 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 all of our assets, the majority of our officers and a significant number of our directors 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 directors or officers.

We and our wholly-owned subsidiary, Protiva, are each incorporated under the laws of the Province of British Columbia and all of our assets are located outside the United States. In addition, the majority of our officers and a significant number of our directors are nationals or residents of countries other than the United States, and all or a substantial portion of such persons' 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.

As a foreign private issuer, we are subject to different United States securities laws and rules than a domestic United States issuer, which may limit the information publicly available to our shareholders.

We are currently a "foreign private issuer" as defined under U.S. securities laws. As a result, even though we are subject to the informational requirements of the Exchange Act, as a foreign private issuer, we are currently exempt from certain informational requirements of the Exchange Act to which domestic U.S. issuers are subject, such as the proxy solicitation rules under Section 14 of the Exchange Act. In order to be more easily compared to our principal competitors, commencing with this Form 10-K filing, we will be filing annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, with the SEC, as if we were a U.S. domestic issuer. The insider reporting and short-profit provisions under Section 16 of the Exchange Act are not applicable to us, so our shareholders may not know on as timely a basis when our officers, directors and principal shareholders purchase or sell our Common Shares, as the reporting periods under the corresponding Canadian insider reporting requirements are longer.

We may lose our foreign private issuer status in the future, which could result in significant additional costs and expenses to us.

In order to maintain our current status as a foreign private issuer, a majority of our Common Shares must be either directly or indirectly owned by non-residents of the United States, unless we satisfy all of the additional requirements necessary to preserve this status. We expect that in the future we might lose our foreign private issuer status. If we are not a foreign private issuer, we would not be eligible to use certain foreign issuer forms and would be required to file periodic and current reports and registration statements on United States domestic issuer forms with the SEC. In addition, we may lose the ability to rely upon exemptions from NASDAQ corporate governance requirements that are available to foreign private issuers. Further, if we engage in capital raising activities after losing our foreign private issuer status, there is a higher likelihood that investors may require us to file resale registration statements with the SEC as a condition to any such financing.

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, 2013. 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.

Item 1B. Unresolved Staff Comments

Not Applicable.

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. The lease expires in July 2014 but the Company has the option to extend the lease to 2017 and then to 2022 and then to 2027.

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.

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 $5,000,000 milestone obligation from Alnylam to the Company. However, Alnylam has demanded a declaration that we have not yet met our milestone obligations. We dispute Alnylam's position. To remedy this dispute, we have commenced arbitration proceedings with Alnylam, as provided for under the agreement.

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 21, 2014, there were 137 registered holders of common shares and 21,945,838 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, 2013	$ 11.42	$ 4.18	$ 11.62	$ 4.31
December 31, 2012	$ 6.78	$ 1.52	$ 6.49	$ 1.41
Quarter Ended:				
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
December 31, 2012	$ 6.78	$ 3.22	$ 6.49	$ 3.21
September 30, 2012	$ 4.22	$ 2.04	$ 4.09	$ 1.98
June 30, 2012	$ 2.80	$ 1.77	$ 2.64	$ 1.91
March 31, 2012	$ 2.91	$ 1.52	$ 2.85	$ 1.41
Month Ended:				
February 28, 2014	$ 24.88	$ 13.66	$ 27.50	$ 15.06
January 31, 2014	$ 14.85	$ 7.65	$ 16.50	$ 8.14

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.

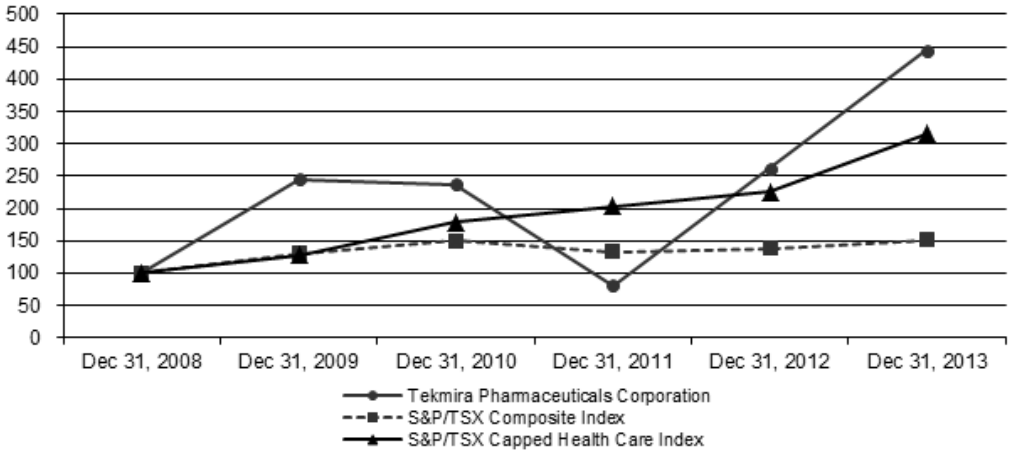
Recent Sales of Unregistered Securities

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, 2008, with a cumulative total shareholder return on the S&P/TSX Composite Total Return Index.



Geographic Breakdown of Shareholders

As of March 18, 2014, 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	15,218,380	69.35%	119
United States	6,726,657	30.65%	14
Other	801	0.00%	4
Total	**21,945,838**	**100%**	**137**

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, 2013. 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,				
	2013	**2012**	**2011**	**2010**	**2009**
	$	**$**	**$**	**$**	**$**
Operating Data					
Revenue	15,464	14,105	16,812	20,745	12,693
Expenses	27,617	27,050	27,505	32,900	20,151
Loss from operations	(12,153)	(12,945)	(10,694)	(12,155)	(7,458)
Net income (loss)	(14,064)	29,612	(10,083)	(12,058)	(7,697)
Weighted average number of common shares—basic [(1)]	15,303	13,728	11,319	10,333	10,325
Weighted average number of common shares—diluted [(1)]	15,303	14,321	11,319	10,333	10,325
Income (loss) per common share—basic	(0.92)	2.16	(0.89)	(1.17)	(0.75)
Income (loss) per common share—diluted	(0.92)	2.07	(0.89)	(1.17)	(0.75)
Balance Sheet Data					
Total current assets	70,343	51,243	11,594	18,006	24,803
Total assets	71,716	52,595	13,758	21,136	27,956
Total liabilities	12,522	11,676	8,531	10,345	6,513
Share capital	242,045	206,572	200,965	196,393	195,727
Total stockholders' equity	59,193	40,919	5,227	10,791	21,463
Number of shares outstanding [(1)]	19,049	14,305	12,149	10,339	10,329

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

Change in reporting currency
Our functional currency is the Canadian dollar. However, most of our competitors, and a large proportion of our investors, are based in the United States. To achieve greater comparability with our competitors' financial information and improve the understandability of our financial information for our U.S. investors, effective October 1, 2013, we are using United States dollars as our 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, which are translated at the exchange rate on the date of the transaction. As a result of the change in reporting currency, we are reporting an accumulated other comprehensive loss of $15.8 million as at December 31, 2013 (2012 - $12.7 million; 2011 – $13.1 million) in our consolidated balance sheets. As the translation differences from our functional currency of Canadian dollars to our reporting currency of U.S. dollars are unrealized gains and losses, the differences are recorded in other comprehensive income, and do not impact the calculation of income or loss per share. All dollar amounts in this MD&A are U.S. dollars unless otherwise stated.

OVERVIEW

Tekmira is a biopharmaceutical company 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 intervention that have not been achievable with conventional drugs. Delivery technology is crucial in order to protect RNAi drugs in the blood stream following administration, allow efficient delivery to the target cells, and facilitate cellular uptake and release into the cytoplasm of the cell. Tekmira's LNP technology represents the most widely adopted delivery technology in RNAi, enabling eight clinical trials and administered to well over 200 patients to date. Because LNP can enable a wide variety of nucleic acid payloads, including messenger RNA, we continue to see new product development and partnering opportunities based on our industry-leading delivery expertise.

Our Product Candidates

With both oncology and anti-viral product platforms, we are advancing our RNAi product pipeline with a focus on areas where there is a significant unmet medical need and commercial opportunity.

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.

We presented updated Phase I TKM-PLK1 data at the 6th Annual NET Conference hosted by the North American Neuroendocrine Tumor Society (NA-NETS) held 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 these 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 Adrenocortical Carcinoma (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 Gastrointestinal Neuroendocrine Tumors (GI-NET) patients enrolled, both experienced clinical benefit: one patient had a partial response based on RECIST response 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 the encouraging results from the dose escalation portion and expansion cohort from our Phase I TKM-PLK1 clinical trial, we have 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 and tumor biomarkers for GI-NET patients, as well as to evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1. TKM-PLK1 will be administered weekly with each four-week cycle consisting of three once-weekly doses followed by a rest week. It is expected that approximately 20 patients with advanced GI-NET or ACC tumors will be enrolled in this trial, with a minimum of 10 GI-NET patients to be enrolled. We expect to report interim data from this trial in the second half of 2014.

In the first half of 2014, we also expect to initiate another Phase I/II clinical trial with TKM-PLK1, enrolling patients with Hepatocellular Carcinoma (HCC). This clinical trial will be 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 HCC patients and measure the anti-tumor activity of TKM-PLK1 in HCC patients.

TKM-HBV

Our extensive experience in the anti-viral arena has been applied to our TKM-HBV program, and the development of an RNAi therapeutic for the treatment of chronic Hepatitis B infection. There are over 350 million people infected globally with Hepatitis B virus (HBV). In the United States there are approximately 1.4 million HBV chronically infected individuals. We are focused on addressing the unmet need of eliminating HBV surface antigen expression in chronically infected patients. Small molecule nucleotide therapy is rapidly becoming the standard of care for chronically HBV infected patients. However, many of these patients continue to express a viral protein called surface antigen. This protein causes inflammation in the liver leading to cirrhosis and in some cases to hepatocellular cancer and death.

TKM-HBV is designed to eliminate surface antigen expression in these chronically infected patients. The rationale is that by blocking surface antigen – and reducing much of the pathology associated with surface antigen expression – this therapy will also allow these patients a potential to ‘sero-convert’, or raise their own antibodies against the virus, and effect a functional cure of the infection.

TKM-HBV is being developed as a multi-component RNAi therapeutic that targets multiple sites on the HBV genome. Because HBV is a viral infection of the liver, the TKM-HBV therapeutic will employ a liver-centric, third generation-LNP formulation that is more potent and has a broader therapeutic index than any LNP currently in clinical development. We expect to present preclinical data in the second half of 2014. We anticipate completing the necessary preclinical work to be in a position to file an Investigational New Drug (IND) application in the second half of 2014 in order to advance TKM-HBV into a Phase I clinical trial in chronically infected HBV patients, with data available in 2015.

TKM-Ebola and TKM-Marburg

TKM-Ebola, an anti-Ebola viral therapeutic, is being developed under a contract with the U.S. Department of Defense’s (DoD) Joint Project Manager Medical Countermeasure Systems (JPM-MCS). In 2010, preclinical studies were published in the medical journal *The Lancet* demonstrating that when RNAi triggers targeting the Ebola virus and delivered by Tekmira’s 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 July 2010, we signed a contract with the DoD under their JPM-MCS program to advance TKM-Ebola, providing us with approximately $140.0 million in funding for the entire program. In May 2013 we announced that our collaboration with the JPM-MCS was modified and expanded to include advances in LNP formulation technology since the initiation of the program in 2010. The recent contract modification increases the stage one targeted funding from $34.7 million to $41.7 million.

In January 2014, we commenced a Phase I clinical trial with TKM-Ebola. The trial is a randomized, single-blind, placebo-controlled study involving single ascending doses and multiple ascending doses of TKM-Ebola. The study will assess the safety, tolerability and pharmacokinetics of administering TKM-Ebola to healthy adult subjects. Four subjects will be enrolled per cohort. There are four planned cohorts for a total of 16 subjects in the single dose arm, and three planned cohorts for a total of 12 subjects in the multiple dose arm of the trial. Each cohort will enroll three subjects who receive TKM-Ebola, and one who will receive placebo.

In March 2014, we were granted a Fast Track designation from the U.S. Food and Drug Administration (FDA) for the development of TKM-Ebola. 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.

TKM-Ebola is being developed under specific FDA regulatory guidelines called the "Animal Rule." The Animal Rule provides that under certain circumstances, where it is unethical or not feasible to conduct human efficacy studies, the FDA may grant marketing approval 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.

Like Ebola, Marburg is a member of the filovirus family of hemorrhagic fever viruses. Regularly occurring natural outbreaks with the Marburg Angola strain have resulted in mortality in approximately 90% of infected individuals, matching that of the most lethal Ebola strains, while in laboratory settings experimental infection with either virus is uniformly lethal (Source of statistics: WHO, World Health Organization). There are currently no approved therapeutics available for the treatment of Marburg infection. In 2010, Tekmira and the University of Texas Medical Branch (UTMB) 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 February 2014, UTMB and Tekmira, along with other collaborators, were awarded additional funding from the NIH in support of this research.

In November 2013, we announced data from a collaboration between Tekmira and the UTMB that showed 100% survival in non-human primates infected with the Angola strain of the Marburg virus in two separate studies. In the first study, 100% survival was achieved when dosing at 0.5 mg/kg TKM-Marburg began one hour after infection with otherwise lethal quantities of the virus. Dosing then continued once daily for seven days. In the second study, 100% survival was achieved even though treatment did not begin until 24 hours after infection. Tekmira expects to continue to build on these data and pursue additional funding opportunities or development partnerships for TKM-Marburg.

TKM-ALDH2

TKM-ALDH2 is a unique application of RNAi. In the United States, approximately 18 million people have an alcohol use disorder. Two million of these seek treatment each year, and approximately 350,000 of these patients receive pharmacotherapy for alcohol use disorder. TKM-ALDH2 will be developed for a high value segment of the alcohol use disorder market, with a target patient population who have moderate to severe alcohol use disorder, such as educated professionals who have support and are motivated to seek treatment.

TKM-ALDH2 has been designed to knock down or silence the ALDH2 enzyme to induce long term acute sensitivity to ethanol. Aldehyde dehydrogenase 2 (ALDH2) is a key enzyme in ethanol metabolism. Inhibition of aldehyde dehydrogenase 2 activity, through the silencing of ALDH2, results in the build-up of acetaldehyde. Elevated levels of acetaldehyde are responsible for adverse physiological effects that cause individuals to avoid alcohol consumption. We have developed an extremely potent RNAi trigger and combined it with a third generation LNP. Human proof of concept for ALDH2 inhibition already exists in the form of the approved drug disulfiram. However, disulfiram's efficacy suffers from poor compliance because it has to be taken daily. We believe TKM-ALDH2 will induce prolonged ethanol sensitivity that will enable it to overcome the compliance limitations associated with daily dosing.

We anticipate completing the necessary preclinical work to be in a position to file an IND in the second half of 2014 in order to advance TKM-ALDH2 into a Phase I clinical trial in healthy volunteers. It is expected that proof-of-concept with alcohol challenge including ALDH2 knockdown, acetaldehyde build up and ethanol toxicity can be obtained in the Phase I clinical trial with data available in 2015. Because alcohol use disorder represents a significant public health problem, there are a variety of government funding sources seeking to support new therapeutic strategies, and Tekmira will be exploring and leveraging these partnering opportunities.

Other Preclinical Candidates

We are currently evaluating several additional preclinical candidates with potential in diverse therapeutic areas using key criteria to prioritize efforts. Given the extremely high efficiency of delivery for third generation liver-centric LNP formulations, we are focused on rare diseases where the molecular target is found in the liver, where early clinical proof-of-concept can be achieved and where there may be accelerated development opportunities. Two areas of interest are glycogen storage diseases and rare forms of hypertriglyceridemia. Our research team intends to continue to generate preclinical data to support the advancement of the most promising of these targets, and we expect to be in a position to identify another development candidate in 2014.

Advancements in LNP Technology

We continue to develop our proprietary "gold standard" 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 now entered Phase III clinical development. Ongoing advances in next-generation LNP technologies include increasing potency as well as expanding the therapeutic index. Our LNP technology remains an important cornerstone of our business development activities moving forward.

Because LNP can enable a wide variety of nucleic acid payloads, including messenger RNA, we continue to see new product development and partnering opportunities based on our industry-leading delivery expertise. Most recently, in February 2014, we presented new preclinical data at the AsiaTIDES scientific symposium demonstrating that mRNA when encapsulated and delivered using Tekmira's LNP technology can be effectively delivered and expressed in liver, tumors and other specific tissues of therapeutic interest.

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., and Alnylam has provided royalty bearing access to our LNP delivery technology to some of its partners. In addition, we have ongoing research relationships with Bristol-Myers Squibb Company, the United States National Cancer Institute, the DoD's JPM-MCS 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 thirteen 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. and Acuitas Therapeutics Inc.

Alnylam has a license to use our intellectual property 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. The program represents the most clinically advanced application of our proprietary LNP delivery technology. Alnylam also announced the initiation of the APOLLO Phase III trial of patisiran, with the study now open for enrollment, 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 from Alnylam related to its ALN-VSP product. We have not recorded any revenue in respect of this milestone.

Our licensing agreement with Alnylam grants us intellectual property rights for the development and commercialization of RNAi therapeutics for specified targets. In consideration for these three exclusive and ten 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.

Consistent with the terms of the settlement agreement signed in November 2012, in December 2013, we finalized and entered a cross-license agreement with Acuitas Therapeutics Inc. (formerly AlCana Technologies, Inc.). 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, and Acuitas has agreed that it will not compete in the RNAi field for a period of 5 years.

Spectrum Pharmaceuticals, Inc.

In September 2013, we announced that our licensee, Spectrum Pharmaceuticals, Inc. had launched Marqibo® through its existing hematology sales force in the United States and has shipped the first commercial orders. 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 originally developed by Tekmira, was licensed from Tekmira to Talon Therapeutics in 2006. In July 2013, Talon was acquired by Spectrum Pharmaceuticals, Inc. 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 two ongoing Phase III trials evaluating Marqibo in additional indications.

Monsanto Company

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 up to $86.2 million following the successful completion of milestones. In January 2014, we received $14.5 million of the net $16.5 million in anticipated near term payments.

Marina Biotech, Inc. / Arcturus Therapeutics, Inc.

On November 29, 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 Therapeutics, Inc., 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.

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

As a result of the business combination 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 $17.0 million in milestones for each product they develop covered by Protiva's intellectual property, 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 the Company to certain of its patents. On January 12, 2014, Alnylam announced that they will be acquiring certain assets from Merck which may include the license agreement in which case it will transfer to Alnylam.

Bristol-Myers Squibb Company (BMS) In May 2010 we announced the expansion of our ongoing research collaboration with BMS. Under the new agreement, BMS will use RNAi triggers molecules formulated by us in LNPs to silence target genes of interest. BMS will conduct the preclinical work to validate the function of certain genes and share the data with us. We can use the preclinical data to develop RNAi therapeutic drugs against the therapeutic targets of interest. BMS paid us $3.0 million concurrent with the signing of the agreement. We are required to provide a predetermined number of LNP batches over the four-year agreement. BMS will have a first right to negotiate a licensing agreement on certain RNAi products developed by us that evolve from BMS validated gene targets. In May 2011, we announced a further expansion of the collaboration to include broader applications of our LNP technology and additional target validation work. Recognition of revenue from agreements with BMS is covered in the Revenue section of this MD&A.

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 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. At December 31, 2013 the remaining balance of Tekmira's portion of the grant was $0.04 million. In February 2014, UTMB and Tekmira, along with other collaborators, were awarded additional funding from the NIH in support of this research.

Halo-Bio RNAi Therapeutics, Inc.

On August 24, 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 the 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.

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 and share purchase warrant 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. 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. Initial fees and milestone payments which require our ongoing involvement are deferred and amortized into income over the estimated period of our involvement as we fulfill our obligations under our agreements. Revenue earned under contractual arrangements upon the occurrence of specified milestones is recognized as the milestones are achieved and collection is reasonably assured.

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. We need to make an estimate of our final contract costs in order to calculate the final incentive fee we will receive. Until we are able to make a reliable estimate of the final contract costs, we recognize only the minimum incentive fee achievable and earned. Once we are able to reliably estimate the final contract costs, we recognize the portion of the estimated incentive fee earned to date.

Our revenue for 2013 was $15.5 million (2012 - $14.1 million) and deferred revenue at December 31, 2013 was $3.5 million (December 31, 2012 - $3.9 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. 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 2013 of $0.9 million (2012 - $1.0 million).

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 be made to calculate the liability, resulting in the classification of our warranty liability as a level 3 financial instrument, which represents 43% of our total liabilities measured at fair value.

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. Prior to Q3 2013, for the purpose of valuing warrants, the estimated volatility of our common stock at the date of issuance, and at each subsequent reporting period, is based upon observations of warrants in the market with similar characteristics and expected remaining lives. The risk-free interest rate is based on the zero-coupon 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 assumed to be equivalent to their remaining contractual term.

Based on changes in our business and general stock market conditions since our warrants were issued in 2011 and 2012, in Q3 2013, we undertook a review of our warrant fair value assumptions. Our previous assumption for warrant expected life was the warrant's remaining contractual term. Based on the pattern of exercises of our warrants we have reduced the expected life to a weighted average of 1.6 years. Our previous assumption for expected volatility in respect of our warrants was 40%. We are now calculating volatility based on our historic share price fluctuations, which, at December 31, 2013, gave a weighted average expected volatility of 47.03%. The reduction in expected life has the effect of reducing the fair value of our warrants, whereas, the increase in our expectations for volatility increases the fair value of our warrants. These two warrant-pricing assumptions, however, had relatively little impact on the change in the fair value of our warrants in 2013 as compared to the impact of the change in our stock price, as quoted on the Toronto Stock Exchange, from $5.01 (C$4.98) in at December 31, 2012 to $7.94(C$8.45) at December 31, 2013.

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

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 2013	Q3 2013	Q2 2013	Q1 2013	Q4 2012	Q3 2012	Q2 2012	Q1 2012
Revenue								
Collaborations and contracts:								
DoD	$ 2.6	$ 2.8	$ 2.4	$ 1.9	$ 3.6	$ 1.9	$ 2.5	$ 3.5
Other	(0.1)	0.1	0.4	0.2	0.3	0.1	0.1	0.1
	2.6	2.9	2.8	2.1	3.9	2.0	2.6	3.6
Alnylam milestone payments	5.0	—	—	—	—	—	1.0	—
Spectrum milestone and royalty payments	—	—	—	—	—	1.0	—	—
Total revenue	**7.6**	**2.9**	**2.8**	**2.1**	**3.9**	**3.0**	**3.6**	**3.6**
Expenses	(9.9)	(6.6)	(5.9)	(5.1)	(9.8)	(4.8)	(6.2)	(6.2)
Other income (losses)	(0.2)	(2.2)	0.1	0.5	44.2	(1.6)	0.7	(0.5)
Net (loss) income	**(2.6)**	**(5.9)**	**(3.0)**	**(2.5)**	**38.0**	**(3.4)**	**(1.9)**	**(3.1)**
Basic net (loss) income per share	**$ (0.15)**	**$ (0.41)**	**$ (0.21)**	**$ (0.17)**	**$ 2.72**	**$ (0.25)**	**$ (0.14)**	**$ (0.25)**
Diluted net (loss) income per share	**$ (0.15)**	**$ (0.41)**	**$ (0.21)**	**$ (0.17)**	**$ 2.51**	**$ (0.25)**	**$ (0.14)**	**$ (0.25)**

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 payments 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. In Q3 2012, the DoD issued a temporary stop-work order, which was subsequently lifted in Q4 2012 and the contract resumed. Revenue in Q4 2012 was unusually high due to an increase in our overhead rates. 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. In Q4 2012, we incurred unforecasted expenses which led to an increase in our TKM-Ebola contract overhead rates and, therefore, an increase in our revenue under the contract. Q1 2013 DoD revenue was lower as certain activities were still building momentum following the stop-work order. TKM-Ebola contract revenue increased in Q2, Q3 and Q4 2013 as technology transfer, manufacturing and non-clinical studies were all ongoing. On May 8, 2013 we announced the signing of a modification to the TKM-Ebola contract - see the “Results of Operations” section of this discussion.

In Q2 2012 we earned a $1.0 million milestone from Alnylam following their initiation of a Phase II human clinical trial enabled by our LNP delivery technology. 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 Q3 2012 we earned a $1.0 million milestone from Spectrum when they received accelerated approval for Marqibo from the U.S. Food and Drug Administration (FDA). In Q4 2013, we earned our first meaningful royalty payment from Spectrum, $0.04 million, as they shipped commercial orders of Marqibo.

In Q4 2013 we decided with BMS to extend the batch formulation agreement end date from May 2014 to December 2014. Extending the agreement will give BMS more time to order LNP batches. There will not be any monetary consideration for extending the agreement. 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 adjustment is reflected in the $0.1 million of negative “other revenue” in Q4 2013 when the decision was made to extend the agreement and a cumulative revenue adjustment was recorded.

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.

Q3 2012 expenses were unusually low due in part to the TKM-Ebola contract stop-work order as discussed above. Our Q4 2012 expenses were unusually high as we paid staff bonuses and recorded $2.5 million in license fee charges related to Acuitas, Marina and Halo-Bio - see the Overview section of this discussion.

In Q4 2013, our expenses increased due to an increase in our research and development activities.

Other income (losses) / Other income in Q4 2012 consists primarily of $65.0 million received under the new Alnylam license agreement net of related contingent legal fees of $18.7 million paid to our lead litigation counsel. Q3 2013 includes a loss for the $2.5 million increase in the fair value of our warrant liability. This is largely attributable to the increase in our share price as compared to when the warrants were last valued at the end of Q2 2013.

Other losses in Q4 2013 consist primarily of a $1.4 million increase in the fair value of warrant liability due to the significant increase in our share price. We also recorded a foreign exchange gain of $1.1 million on the U.S. dollar funds that we received from financing activities.

Net (loss) income / The loss in Q1 2012 is largely due to the reduction in Alnylam revenue in Q1 2012 and an increase in the fair value of our outstanding warrants in Q1 2012 as a result of our increasing share price. The increase in loss in both Q3 2012 and Q3 2013 is largely due to increases in the fair value of our warrant liability which is caused by increases in our share price over the previous quarter ends. The net income in Q4 2012 is largely due to the litigation settlement payments received from Alnylam, and the decrease in loss in Q4 2013 is largely due to the milestone payment we received from Alnylam.

Fourth quarter of 2013 / Our Q4 2013 net loss was $2.6 million ($0.15 basic and diluted loss per common share) as compared to a net income of $38.0 million ($2.72 basic income per common share, $2.51 diluted income per common share) for Q4 2012.

Revenue increased to $7.6 million in Q4 2013 as compared to $3.9 million in Q4 2012 largely as a result of the $5.0 million milestone payment from Alnylam.

Research, development, collaborations and contracts expenses remained relatively stable at $7.0 million in Q4 2013 and $7.2 million in Q4 2012. In Q4 2012 we recorded $2.5 million in license fee charges related to Acuitas, Marina and Halo-Bio - see the Overview section of this discussion. In Q4 2013, we increased DoD research and development activities as compared to Q4 2012 when work was ramping up again after the stop-work period.

Other income in Q4 2012 is primarily $65.0 million received under the new Alnylam license agreement net of related contingent legal fees of $18.7 million paid to our lead litigation counsel. 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 the U.S. dollar funds that we received from financing activities.

RESULTS OF OPERATIONS

The following summarizes the results of our operations for the 2013, 2012 and 2011 fiscal years, in millions of dollars:

	2013	2012	2011
Total revenue	**15.5**	14.1	16.8
Operating expenses	**27.6**	27.0	27.5
Loss from operations	**(12.2)**	(12.9)	(10.7)
Net income (loss)	**(14.1)**	29.6	(10.1)
Basic income (loss) per share	**(0.92)**	2.16	(0.89)
Diluted income (loss) per share	**(0.92)**	2.07	(0.89)
Total assets	**71.7**	52.6	13.8
Total liabilities	**12.5**	11.7	8.5
Total non-current liabilities	**0.0**	0.7	1.7
Deficit	**(167.0)**	(153.0)	(182.6)
Accumulated other comprehensive loss	**(15.8)**	(12.7)	(13.2)
Total stockholders' equity	**59.2**	40.9	5.2

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 a 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%
Alnylam	**-**	**-**	-	-
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 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, which is funded under a Transformational Medical Technologies program, 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.

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.

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

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 the 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. 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 intend to offer BMS an extension to the agreement's end date from May 10, 2014 to December 31, 2014. Extending the agreement will give BMS more time to order LNP batches. There will not be any monetary consideration for extending the agreement. 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.

Other RNAi collaborators revenue

We have active research agreements with a number of other RNAi collaborators.

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. In 2013, we recorded $0.04 million in Marqibo royalty revenue.

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 initiated more clinical trial sites. In addition, we incurred incremental costs for TKM-Ebola program in 2013, as compared to 2012, as we conducted a number of pre-clinical studies with our new formulation.

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.

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

Depreciation of property and equipment

Most of our recent property and equipment additions were related to our TKM-Ebola program and are not recorded as Company assets. As such, a large portion of our property and equipment is reaching full amortization. In 2013, however, we did spend $0.7 million on property and equipment mostly related to information technology improvements.

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 revenues or expenses were recorded 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 in the value of common share purchase warrants outstanding 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, any change in our assumed rate of share price volatility, our assumptions for the expected lives of the warrants and warrant issuances or exercises.

Year ended December 31, 2012 compared to the year ended December 31, 2011

For the fiscal year ended December 31, 2012, our net income was $29.6 million ($2.16 basic income per common share, $2.07 diluted income per common share) as compared to a net loss of $10.1 million ($0.89 basic and diluted loss per common) for 2011.

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

	2012	% of Total	2011	% of Total
Collaborations and contracts				
DoD	$ **11.5**	**82%**	$ 11.5	69%
Alnylam	**-**	**-**	4.2	25%
BMS	**0.4**	**3%**	0.4	3%
Other RNAi collaborators	**0.1**	**1%**	0.1	1%
Total collaborations and contracts	**12.1**	**86%**	16.3	97%
Alnylam milestone payments	**1.0**	**7%**	0.5	3%
Spectrum milestone and royalty payments	**1.0**	**7%**	-	0%
Total revenue	**$ 14.1**		$ 16.8	

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.

Alnylam revenue

Under the previous Alnylam Manufacturing Agreement, we were the exclusive manufacturer of any products required by Alnylam that utilize our technology through to the end of Phase II clinical trials. Under the Agreement there was a contractual minimum payment for the provision of staff in each of the three years from 2009 to 2011 and Alnylam was reimbursing us for any external costs incurred. As discussed earlier, the Alnylam Manufacturing Agreement was replaced by a new licensing agreement as part of the settlement of the litigation between Tekmira, Alnylam and Acuitas, and we are no longer manufacturing for Alnylam.

In Q2 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 Q3 2011 we recorded a $0.5 million milestone payment from Alnylam following their initiation of a Phase I human clinical trial for a product enabled by our LNP delivery technology.

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.

Other RNAi collaborators revenue

We have active research agreements with a number of other RNAi collaborators.

Spectrum revenue

In Q3 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.

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

	2012	% of Total	2011	% of Total
Research, development, collaborations and contracts	$ **18.0**	**67%**	$ 20.1	73%
General and administrative	**8.1**	**30%**	6.4	23%
Depreciation	**0.9**	**3%**	1.0	4%
Total operating expenses	**27.0**		27.5	

Research, development, collaborations and contracts

For reasons discussed in the revenue section above, third-party expenses on our Alnylam collaboration were lower in 2012 as compared to 2011.

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.

Compensation expenses were at a similar level in 2012 as compared to 2011. There was a reduction in workforce of 15 employees in June 2011 and a further reduction in workforce in January 2012 of 16 employees. However, the reduced number of employees was offset by bonus payouts in Q4 2012; there were no bonuses paid in 2011.

General and administrative

The increase in 2012 general and administrative expenses relates to legal fees incurred in respect of our lawsuit with Alnylam and Acuitas (excluding licensing settlement legal fees that have been recorded as other losses) and bonus payouts in Q4 2012; there were no bonuses paid in 2011.

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

		2012		2011
Interest income	**$**	**0.1**	$	0.1
Licensing settlement payment		**65.0**		**-**
Licensing settlement legal fees		**(18.7)**		**-**
(Increase) decrease in fair value of warrant liability		**(3.8)**		0.6
Total other income (losses)	**$**	**42.6**	$	0.6

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.

Change 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, 2012 was $3.8 million as compared to a decrease in the value of common share purchase warrants outstanding at the end of 2011 of $0.6 million. The increase in value in 2012 is a result of additional warrants issued from the 2012 financing, as well as an increase in the Company's share price from the previous balance sheet date of December 31, 2011.

LIQUIDITY AND CAPITAL RESOURCES

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

	Year ended December 31		
	2013	2012	2011
Net income (loss) for the year	**(14.1)**	29.6	(10.1)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities	**5.0**	5.7	1.1
Changes in operating assets and liabilities	**2.3**	(2.4)	1.1
Net cash (used in) operating activities	**(6.7)**	32.9	(7.8)
Net cash used in investing activities	**(0.7)**	(0.0)	(0.1)
Net cash provided by financing activities	**32.7**	4.5	4.6
Effect of foreign exchange rate changes on cash & cash equivalents	**(3.6)**	0.5	(0.1)
Net increase (decrease) in cash and cash equivalents	**21.7**	38.0	(3.4)
Cash and cash equivalents, beginning of year	**47.0**	9.0	12.4
Cash and cash equivalents, end of year	**68.7**	47.0	9.0

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, 2013, we had cash and cash equivalents of approximately $68.7 million as compared to $47.0 million at December 31, 2012.

Operating activities used $6.7 million in cash in 2013 as compared to $32.9 million of cash provided in 2012 and $7.8 million used in 2011. 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".

Investing activities used $0.73 million in 2013 as compared to $0.01 million in 2012 and $0.06 million in 2011. Equipment we acquire under our TKM-Ebola contract is owned by the DoD and is not recorded as a Company investment.

On June 16, 2011, we completed a public offering of 1,789,900 units for gross proceeds of $5.2 million. Each unit, priced at C$2.85, 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$3.35. The warrants expire on June 15, 2016.

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. The cost of financing, including commissions and professional fees, is estimated at $3.9 million, which will give us net proceeds of $56.6 million. The offering's underwriter has a 30 day option to purchase an additional 318,750 common shares at $28.50, which would bring the net proceeds to $65.2 million if exercised in full. We plan to use 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, 2013 we held $68.7 million in cash and cash equivalents. On March 18, 2014, we raised net proceeds of $56.6 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:

- revenues earned from our DoD contract to develop TKM-Ebola;
- revenues earned from our 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
- 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 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

Protiva promissory notes / On March 25, 2008, our subsidiary, Protiva, declared a dividend totaling $12.0 million. The dividend was paid by issuing promissory notes on May 23, 2008. Recourse for payment of the promissory notes will be limited to our receipt, if any, of up to $12.0 million in payments from a third party. We will pay these funds, if and when we receive them, to the former Protiva shareholders in satisfaction of the promissory notes. As contingent obligations that would not need to be funded by the Company, the $12.0 million receivable and the related promissory notes payable are not included in our consolidated balance sheet.

CONTRACTUAL OBLIGATIONS

Facility lease / Effective July 29, 2009, we signed an amendment to the operating lease for its laboratory and office premises. The amended lease expires in July 2014 but we have the option to extend the lease to 2017 and then to 2022 and then to 2027. The amended lease included a signing incentive payment. In accordance with our accounting policy the signing incentive payment is being amortized on a straight-line basis over the term of the amended lease.

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, 2013, 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 $0.001 million in royalties payable to TPC as at December 31, 2013. The remaining contingently payable balance with TPC as of December 31, 2013 was $3.5 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, in the year ended December 31, 2012, we paid Marina an upfront fee of $0.3 million. A further license payment of $0.2 million was expensed in March 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.

Tabular Disclosure of Contractual Obligations

The following table summarizes our contractual obligations as at December 31, 2013:

(in millions $)	Payments Due by Period				
	Total	**Less than 1 year**	**1 – 3 years**	**4 – 5 years**	**After 5 years**
Contractual Obligations					
Facility lease	0.7	0.7	—	—	—
Technology license obligations [1]	1.3	1.3	—	—	—
Total contractual obligations	2.0	2.0	—	—	—

[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 21, 2014, we had 21,945,838 common shares issued and outstanding, outstanding options to purchase an additional 1,893,954 common shares and outstanding warrants to purchase an additional 718,000 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 December 2011, the FASB issued ASU 2011-11, *Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities* . In January 2013, the FASB issued ASU 2013-01, *Balance Sheet: Clarifying the Scope of Disclosures about Offsetting Assets and Liabilities* , and is intended to narrow the scope of ASU 2011-11.These newly issued accounting standards requires an entity to disclose both gross and net information about instruments and transactions eligible for offset in the statement of financial position as well as instruments and transactions executed under a master netting or similar arrangement and was issued to enable users of financial statements to understand the effects or potential effects of those arrangements on its financial position. This ASU is required to be applied retrospectively and is effective for fiscal years, and interim periods within those years, beginning on or after January 1, 2013. As this accounting standard only requires enhanced disclosure, the adoption of this standard did not have an impact on our financial position or results of operations.

In February 2013, the FASB issued amendments to the accounting guidance for presentation of comprehensive income to improve the reporting of reclassifications out of accumulated other comprehensive income. The amendments do not change the current requirements for reporting net income or other comprehensive income, but do require an entity to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the statement where the net income is presented or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income but only if the amount reclassified is required under GAAP to be reclassified to net income in its entirety in the same reporting period. For other amounts that are not required under GAAP to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures required under GAAP that provide additional detail about these amounts. For public companies, these amendments are effective prospectively for reporting periods beginning after December 15, 2012. The adoption of this guidance did not have a material impact on our consolidated financial statements.

In July 2013, the FASB issued ASU 2013-11, Income Taxes (ASC 740) *Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carry forward, a Similar Tax Loss, or a Tax Credit Carry forward Exists* (Update). The update is intended to eliminate the diversity in practice of the presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The update is effective for annual and interim financial statements for fiscal years beginning after December 15, 2013. The amendments should be applied prospectively to all unrecognized tax benefits that exist at the effective date. Retrospective application is permitted. We do not expect that the adoption of this guidance will have a material impact on our consolidated financial statements.

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, 2013 and 2012, we had cash and cash equivalents of $68.7 million and $47.0 million respectively. 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, 2013 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, 2013 and 2012. 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 $0.04 million and $0.10 million as of December 31, 2013 and 2012, respectively.

In addition, we are exposed to market risk related to changes in foreign currency exchange rates. We used a forward exchange contract to convert $45.0 million into Canadian dollars in November 2012. We have not entered into any other agreements or purchased any instruments to hedge possible currency risks at this time. Prior to the financing in October 2013, which was denominated in U.S. dollars, we managed our U.S. dollar currency risk by using cash received from U.S. dollar revenues to pay U.S. dollar expense and by limited holdings of U.S. dollar cash and cash equivalent balances to working capital levels. Given our increasing level of U.S. dollar expenses, we maintained the funds raised in October 2013 in U.S. dollars in order to achieve a natural foreign exchange hedge. As of December 31, 2013 and 2012, an adverse change of one percentage point in the foreign currency exchange rates would have resulted in an incremental loss of $0.4 million and $0.01 million, respectively. We recorded foreign exchange gains of $1.1 million and $0.02 million for the fiscal years ended December 31, 2013 and 2012, respectively.

Item 8. Financial Statements and Supplementary Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

INDEPENDENT AUDITORS' REPORT OF REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Tekmira Pharmaceuticals Corporation

We have audited the accompanying consolidated financial statements of Tekmira Pharmaceuticals Corporation, which comprise the consolidated balance sheets as at December 31, 2013 and December 31, 2012, the 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, 2013, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with US generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

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 comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of Tekmira Pharmaceuticals Corporation as at December 31, 2013 and December 31, 2012 and its consolidated results of operations and its consolidated cash flows for each of the years in the three-year period ended December 31, 2013 in accordance with US generally accepted accounting principles.

KPMG LLP
Chartered Accountants
March 5, 2014

Vancouver, Canada

TEKMIRA PHARMACEUTICALS CORPORATION

Consolidated Balance Sheets
(Expressed in US Dollars)
(Prepared in accordance with US GAAP)

	December 31 2013	December 31 2012
Assets		
Current assets:		
Cash and cash equivalents	**$ 68,716,531**	47,024,124
Accounts receivable	**116,556**	1,074,891
Accrued revenue	**212,384**	2,373,881
Deferred expenses	**172,952**	431,410
Investment tax credits receivable	**40,200**	9,875
Prepaid expenses and other assets	**1,084,030**	329,280
Total current assets	**70,342,653**	51,243,461
Property and equipment (note 4)	**13,038,751**	13,188,186
Less accumulated depreciation (note 4)	**(11,665,594)**	(11,836,456)
Property and equipment, net of accumulated depreciation (note 4)	**1,373,157**	1,351,730
Total assets	**$ 71,715,810**	$ 52,595,191
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities (note 10)	**$ 3,680,462**	3,795,546
Deferred revenue (note 3)	**3,463,255**	3,143,580
Warrants (note 2 and 5)	**5,378,772**	4,014,821
Total current liabilities	**12,522,489**	10,953,947
Deferred revenue, net of current portion (note 3)	**-**	722,445
Total liabilities	**12,522,489**	11,676,392
Stockholders' equity:		
Common shares (note 5)		
Authorized - unlimited number with no par value		
Issued and outstanding: 19,048,900 (December 31, 2012 - 14,305,356)	**216,701,859**	181,785,818
Additional paid-in capital	**25,343,481**	24,786,028
Deficit	**(167,026,633)**	(152,962,407)
Accumulated other comprehensive income (loss)	**(15,825,386)**	(12,690,640)
Total stockholders' equity	**59,193,321**	40,918,799
Total liabilities and stockholders' equity	**$ 71,715,810**	$ 52,595,191

Nature of business and future operations (note 1)
Contingencies and commitments (note 8)
Subsequent events (note 11)

See accompanying notes to the consolidated financial statements.

TEKMIRA PHARMACEUTICALS CORPORATION

Consolidated Statements of Operations and Comprehensive Income (Loss)
(Expressed in US Dollars)
(Prepared in accordance with US GAAP)

	Year ended December 31		
	2013	2012	2011
Revenue (note 3)			
Collaborations and contracts	**$ 10,424,569**	$ 12,105,186	$ 16,311,590
Licensing fees, milestone and royalty payments	**5,039,581**	2,000,000	500,000
Total revenue	**15,464,150**	14,105,186	16,811,590
Expenses			
Research, development, collaborations and contracts	**21,458,258**	18,043,356	20,131,922
General and administrative	**5,546,273**	8,140,779	6,386,386
Depreciation of property and equipment	**612,837**	865,599	986,932
Total expenses	**27,617,368**	27,049,734	27,505,240
Loss from operations	**(12,153,218)**	(12,944,548)	(10,693,650)
Other income (losses)			
Interest income	**539,996**	138,320	126,314
Licensing settlement payment (note 3(b))	**-**	65,000,000	-
Licensing settlement legal fees (note 3(b))	**-**	(18,737,966)	-
Foreign exchange gains (losses)	**1,079,310**	24,855	(14,692)
Warrant issuance costs (note 5)	**-**	(47,030)	(80,937)
(Increase) decrease in fair value of warrant liability (note 2)	**(3,530,314)**	(3,821,635)	579,474
Net income (loss)	**$ (14,064,226)**	$ 29,611,996	$ (10,083,491)
Income (loss) per common share (note 2)			
Basic	**$ (0.92)**	$ 2.16	$ (0.89)
Diluted	**$ (0.92)**	$ 2.07	$ (0.89)
Weighted average number of common shares			
Basic	**15,302,680**	13,727,925	11,318,766
Diluted	**15,302,680**	14,320,814	11,318,766
Comprehensive income (loss)			
Cumulative translation adjustment	**(3,134,746)**	473,825	(53,066)
Comprehensive income (loss)	**$ (17,198,972)**	$ 30,085,821	$ (10,136,557)

See accompanying notes to the consolidated financial statements.

TEKMIRA PHARMACEUTICALS CORPORATION

Consolidated Statement of Stockholders' Equity
(Expressed in US Dollars)
(Prepared in accordance with US GAAP)

	Number of shares	Share capital	Additional paid-in capital	Deficit	Accumulated other comprehensive income (loss)	Total stockholders' equity
Balance, December 31, 2010	10,338,702	$172,982,011	$23,410,834	$(172,490,912)	$ (13,111,399)	$ 10,790,534
Stock-based compensation	-	-	633,449	-	-	633,449
Issuance of common shares pursuant to exercise of options	20,033	128,371	(117,586)	-	-	10,785
Issuance of common shares in conjunction with the public offering, net of issuance costs of $481,135 and net of initial fair value of warrants of $751,505	1,789,900	3,928,294	-	-	-	3,928,294
Currency translation adjustment	-	-	-	-	(53,066)	(53,066)
Net loss	-	-	-	(10,083,491)	-	(10,083,491)
Balance, December 31, 2011	12,148,635	$177,038,676	$23,926,697	$(182,574,403)	$ (13,164,465)	$ 5,226,505
Stock-based compensation	-	-	982,290	-	-	982,290
Issuance of common shares pursuant to exercise of options	38,635	194,050	(122,959)	-	-	71,091
Issuance of common shares pursuant to exercise of warrants	269,485	1,512,973	-	-	-	1,512,973
Issuance of common shares in conjunction with the private offering, net of issuance costs of $178,521 and net of initial fair value of warrants of $850,907	1,848,601	3,040,119	-	-	-	3,040,119
Currency translation adjustment	-	-	-	-	473,825	473,825
Net income	-	-	-	29,611,996	-	29,611,996
Balance, December 31, 2012	14,305,356	$181,785,818	$24,786,028	$(152,962,407)	$ (12,690,640)	$ 40,918,799
Stock-based compensation	**-**	**-**	**903,005**	**-**	**-**	**903,005**
Issuance of common shares pursuant to exercise of options	**125,596**	**734,872**	**(345,552)**	**-**	**-**	**389,320**
Issuance of common shares pursuant to exercise of warrants	**305,448**	**2,142,852**	**-**	**-**	**-**	**2,142,852**
Issuance of common shares in conjunction with the private offering, net of issuance costs of $2,461,683	**4,312,500**	**32,038,317**	**-**	**-**	**-**	**32,038,317**
Currency translation adjustment	-	-	-	-	**(3,134,746)**	**(3,134,746)**
Net loss	**-**	**-**	**-**	**(14,064,226)**	**-**	**(14,064,226)**
Balance, December 31, 2013	**19,048,900**	**$216,701,859**	**$25,343,481**	**$(167,026,633)**	**$ (15,825,386)**	**$ 59,193,321**

TEKMIRA PHARMACEUTICALS CORPORATION

Consolidated Statements of Cash Flow
(Expressed in US Dollars)
(Prepared in accordance with US GAAP)

	Year ended December 31		
	2013	**2012**	**2011**
OPERATING ACTIVITIES			
Income (loss) for the year	**$ (14,064,226)**	$ 29,611,996	$ (10,083,491)
Items not involving cash:			
Depreciation of property and equipment	**612,837**	865,599	986,932
Stock-based compensation expense	**903,005**	982,290	633,449
Unrealized foreign exchange (gains) losses	**(18,119)**	29,292	(20,331)
Warrant issuance costs	**-**	47,030	80,937
Change in fair value of warrant liability	**3,530,314**	3,821,635	(579,474)
Fair value of warrants issued in conjunction with debt facility	**-**	-	35,414
Net change in non-cash operating items:			
Accounts receivable	**888,929**	(189,707)	2,397,321
Accrued revenue	**2,008,215**	(2,187,580)	621,552
Deferred expenses	**230,602**	360,720	(226,999)
Investment tax credits receivable	**(30,963)**	322,845	71,336
Inventory	**-**	-	148,214
Prepaid expenses and other assets	**(776,012)**	97,272	(107,504)
Accounts payable and accrued liabilities	**129,997**	(197,265)	(2,142,976)
Deferred revenue	**(153,138)**	(655,344)	354,662
Net cash (used in) operating activities	**(6,738,559)**	32,908,783	(7,830,958)
INVESTING ACTIVITIES			
Proceeds from sale of property and equipment	**-**	2,503	-
Acquisition of property and equipment	**(725,100)**	(14,900)	(60,378)
Net cash used in investing activities	**(725,100)**	(12,397)	(60,378)
FINANCING ACTIVITIES			
Proceeds from issuance of common shares and warrants, net of issuance costs	**32,038,317**	3,843,996	4,598,862
Issuance of common shares pursuant to exercise of options	**389,320**	71,091	10,786
Issuance of common shares pursuant to exercise of warrants	**288,824**	632,282	-
Net cash provided by financing activities	**32,716,461**	4,547,369	4,609,648
Effect of foreign exchange rate changes on cash & cash equivalents	**(3,560,395)**	549,610	(100,232)
Increase (decrease) in cash and cash equivalents	**21,692,407**	37,993,365	(3,381,920)
Cash and cash equivalents, beginning of year	**47,024,124**	9,030,759	12,412,678
Cash and cash equivalents, end of year	**$ 68,716,531**	$ 47,024,124	$ 9,030,759
Supplemental cash flow information			
Fair value of warrants exercised on a cashless basis	**$ 1,404,349**	$ 210,680	$ -
Investment tax credits received	**$ 9,875**	$ 322,720	$ 103,664
Fair value of warrants issued in conjunction with public offering	**$ -**	$ 850,907	$ 751,505
Fair value of warrants issued in conjunction with debt facility	**$ -**	$ -	$ 35,414

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.

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.

These consolidated financial statements include the accounts of the Company and its two wholly-owned subsidiaries, Protiva Biotherapeutics Inc. and Protiva Biotherapeutics (USA), Inc., which were acquired on May 30, 2008. All intercompany transactions and balances have been eliminated on consolidation.

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, share purchase warrant valuation 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.

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, accounts receivable, investment tax credits receivable, accounts payable and accrued liabilities, and warrants and promissory notes.

The carrying values of cash and cash equivalents are recorded at fair value based on quoted prices in active markets. The carrying values of accounts receivable, investment tax credits 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 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, 2013
Assets				
Cash	$ 68,716,531	-	-	$ 68,716,531
Guaranteed Investment Certificates	-	-	-	-
Total	$ 68,716,531	-	-	$ 68,716,531
Liabilities				
Warrants	$ -	-	$ 5,378,772	$ 5,378,772

	Level 1	Level 2	Level 3	December 31, 2012
Assets				
Cash	$ 44,373,720	-	-	$ 44,373,720
Guaranteed Investment Certificates	2,650,404	-	-	2,650,404
Total	$ 47,024,124	-	-	$ 47,024,124
Liabilities				
Warrants	$ -	-	$ 4,014,821	$ 4,014,821

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

	Liability at beginning of the year	Opening liability of warrants issued in the year	Fair value of warrants exercised in the year	Increase (decrease) in value of warrants	Foreign exchange (gain) loss	Liability at end of the year
Year ended December 31, 2011	$ -	$ 786,919	$ -	$ (579,474)	$ (5,825)	$ 201,620
Year ended December 31, 2012	$ 201,620	$ 850,907	$ (880,691)	$ 3,821,635	$ 21,350	$ 4,014,821
Year ended December 31, 2013	$ 4,014,821	$ -	$ (1,854,028)	$ 3,530,314	$ (312,335)	$ 5,378,772

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. 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, or, for collaborative partners where an acceptance criteria does not apply, are not recorded as inventory but are expensed at the time of receipt.

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 and milestone 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. Revenue earned under contractual arrangements upon the occurrence of specified milestones is recognized as the milestones are achieved and collection is reasonably assured.

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 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:

	Year ended December 31		
	2013	2012	2011
Numerator:			
Net income (loss)	**$ (14,064,226)**	$ 29,611,996	$ (10,083,491)
Denominator:			
Weighted average number of common shares	**15,302,680**	13,727,925	11,318,766
Effect of dilutive securities:			
Warrants	**-**	177,374	-
Options	**-**	415,515	-
Diluted weighted average number of common shares	**15,302,680**	14,320,814	11,318,766
Basic income (loss) per common share	**$ (0.92)**	$ 2.16	$ (0.89)
Diluted income (loss) per common share	**$ (0.92)**	$ 2.07	$ (0.89)

For the year ended December 31, 2013, potential common shares of 3,064,767 were excluded from the calculation of income per common share because their inclusion would be anti-dilutive (December 31, 2012 –1,085,503; December 31, 2011 – 2,694,330).

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 Biotherapeutics Inc. and Protiva Biotherapeutics (USA), Inc.), 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.

Effective October 1, 2013, 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 (2013 – 0.9402; 2012 – 1.0051; 2011 – 0.9833). Revenues, expenses and other income (losses) are translated using the average rate for the period (2013 – 0.971; 2012 – 1.001; 2011 – 1.012), 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 a result of the change in reporting currency, the Company is reporting an accumulated other comprehensive loss of $15,825,386 as at December 31, 2013 (2012 - $12,690,640; 2011 – $13,164,466) in its consolidated balance sheets. As the translation differences from the Company's functional currency of Canadian dollars to the Company's reporting currency of U.S. dollars are unrealized gains and losses, the differences are recorded in other comprehensive income (loss), and do not impact the calculation of 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 zero-coupon 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, the research and development of RNA interference therapeutics. 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 is 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 December 2011, the FASB issued ASU 2011-11, *Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities* . In January 2013, the FASB issued ASU-2013-01, *Balance Sheet: Clarifying the Scope and Disclosures about Offsetting Assets and Liabilities* , which narrows the scope of ASU 2011-011. These newly issued accounting standards requires an entity to disclose both gross and net information about instruments and transactions eligible for offset in the balance sheet as well as instruments and transactions executed under a master netting or similar arrangement and was issued to enable users of financial statements to understand the effects or potential effects of those arrangements on its balance sheet. This ASU is required to be applied retrospectively and is effective for fiscal years, and interim periods within those years, beginning on or after January 1, 2013. As this accounting standard only requires enhanced disclosure, the adoption of this standard did not have an impact on the Company's financial position or statement of operations.

In February 2013, the FASB issued amendments to the accounting guidance for presentation of comprehensive income to improve the reporting of reclassifications out of accumulated other comprehensive income. The amendments do not change the current requirements for reporting net income or other comprehensive income, but do require an entity to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the statement where the net income is presented or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income but only if the amount reclassified is required under GAAP to be reclassified to net income in its entirety in the same reporting period. For other amounts that are not required under GAAP to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures required under GAAP that provide additional detail about these amounts. For public companies, these amendments are effective prospectively for reporting periods beginning after December 15, 2012. The adoption of this guidance did not impact our consolidated financial statements.

In July 2013, the FASB issued ASU 2013-11, Income Taxes (ASC 740) *Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carry forward, a Similar Tax Loss, or a Tax Credit Carry forward Exists* (Update). The update is intended to eliminate the diversity in practice of the presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The update is effective for annual and interim financial statements for fiscal years beginning after December 15, 2013. The amendments should be applied prospectively to all unrecognized tax benefits that exist at the effective date. Retrospective application is permitted.

3. Collaborations, contracts and licensing agreements

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

Revenue

	Year ended December 31		
	2013	2012	2011
Collaborations and contracts			
DoD (a)	**$ 9,805,556**	$ 11,536,101	$ 11,565,997
Alnylam (b)	**-**	9,719	4,191,295
BMS (c)	**525,527**	440,279	437,165
Other RNAi collaborators (d)	**93,486**	119,087	117,133
Total research and development collaborations and contracts	**10,424,569**	12,105,186	16,311,590
Licensing fees and milestone payments			
Alnylam milestone payments (b)	**5,000,000**	1,000,000	500,000
Spectrum payments (e)	**39,581**	1,000,000	-
Total licensing fees and milestone payments	**5,039,581**	2,000,000	500,000
Total revenue	**$ 15,464,150**	$ 14,105,186	$ 16,811,590

The following table sets forth deferred collaborations and contracts revenue:

	December 31, 2013	December 31, 2012
DoD (a)	**$ 1,655,028**	$ 1,388,970
BMS current portion (c)	**1,808,227**	1,754,610
Deferred revenue, current portion	**3,463,255**	3,143,580
BMS long-term portion (c)	-	722,445
Total deferred revenue	**$ 3,463,255**	$ 3,866,025

(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 is eligible to receive up to $34.7 million. 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 to $41.7 million.

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 $140.0 million in funding for the entire program.

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. At December 31, 2013, 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.

On August 6, 2012, the Company announced that it had received a temporary stop-work order from the DoD in respect of this contract. On October 2, 2012, the Company announced that the stop-work order had been lifted and work on the contract resumed. On November 1, 2012, the Company submitted a contract modification request to the DoD in order to integrate recent advancements in the Company's formulation technology. The modification request is currently being negotiated while work is continuing on the contract.

(b) 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 the new 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 Company has not recorded any revenue in respect of this milestone.

(c) 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 intend to extend the agreement's end date from May 10, 2014 to December 31, 2014. Extending the agreement will give BMS more time to order LNP batches. There will not be any monetary consideration for extending the agreement. 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.

(d) Other RNAi collaborators

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

(e) 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 ™ (Optisomal Vinorelbine) and Brakiva ™ (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 does 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, 2013, the Company recorded $39,581 in Marqibo royalty revenue (2012 - $nil, 2011 - $nil). In the year ended December 31, 2013, the Company accrued $990 in royalties due to TPC in respect of the Marqibo royalty earned by the Company (see note 8).

(f) License agreement with Merck & Co., Inc. ("Merck")

As a result of the acquisition of Protiva in 2008, the Company received a non-exclusive royalty-bearing world-wide license, of certain intellectual property acquired by Merck. Under the license, Merck will pay up to $17,000,000 in milestones for each product it develops using the acquired intellectual property, except for the first product for which Merck will pay up to $15,000,000 in milestones. Merck will also pay royalties on product sales. Merck's license rights are limited to patents that the Company filed, or that claim priority to a patent that was filed, before October 9, 2008. Merck does not have rights to patents filed by the Company after October 9, 2008 unless they claim priority to a patent filed before that date. The license agreement with Merck was entered into as part of a settlement of litigation between Protiva and a Merck subsidiary. No payments have been made under this license to date.

Merck has granted a license to the Company to certain of its intellectual property.

On January 12, 2014, Alnylam announced that they will be acquiring this license from Merck in which case this license agreement will transfer to Alnylam.

4. Property and equipment

December 31, 2013	Cost	Accumulated depreciation	Net book value
Lab equipment	$ 4,885,963	$ (4,678,976)	$ 206,987
Leashold improvements	5,592,312	(5,001,683)	$ 590,629
Computer hardware and software	1,991,927	(1,589,519)	$ 402,408
Furniture and fixtures	395,948	(395,416)	$ 532
Assets under construction	172,601	-	$ 172,601
	$ 13,038,751	$ (11,665,594)	$ 1,373,157

December 31, 2012	Cost	Accumulated depreciation	Net book value
Lab equipment	$ 5,136,975	$ (4,787,905)	$ 349,070
Leasehold improvements	5,978,338	(5,041,900)	936,438
Computer hardware and software	1,649,593	(1,585,288)	64,305
Furniture and fixtures	423,281	(421,363)	1,918
	$ 13,188,187	$ (11,836,456)	$ 1,351,731

As at December 31, 2013, all of the Company's property and equipment are currently in use and no impairment has been recorded.

5. Share capital

(a) Financing

On June 16, 2011, the Company completed a public offering of 1,789,900 units at a price of $2.88 (C$2.85) each for total gross proceeds, before expenses, of $5,160,934. 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$3.35. The warrants expire on June 15, 2016. After paying underwriter's commission and other unit issue costs, the offering generated net cash of $4,598,862. The total unit issuance cost of $562,072 has been allocated, on a pro-rata basis, as $481,135 to the shares and $80,937to 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 894,950 warrants was $751,505 based on an assumed risk-free interest rate of 2.19%, 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 allocated to share capital.

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 $4,069,547. 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 $3,843,995. The total unit issuance cost of $225,551 has been allocated, on a pro-rata basis, as $178,521 to the shares and $47,030 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 $850,907 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 announced that it had 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 $2,461,683, resulting in net proceeds of $32,038,317.

(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, 2013, there were 105,683 warrants exercised for $288,823 in cash (December 31, 2012 – 230,841 warrants for $632,282) and 468,000 warrants exercised using the cashless exercise provision in return for 199,765 common shares (December 31, 2012 – 54,545 warrants for 38,644 common shares).

A following table summarizes the Company's warrant activity for the years ended December 31, 2012 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, 2011	949,495	$ 3.25	$ 3.20	$1.65 - $3.35	$1.62 - $3.29	4.6	$ -	$ -
Issued	924,302	$ 2.60	$ 2.61	$2.60	$2.61			
Exercised	(285,386)	$ 2.53	$ 2.54	$1.65 - $3.35	$1.66 - $3.37			
Balance, December 31, 2012	1,588,411	$ 3.00	$ 3.02	$2.50 - $3.35	$2.51 - $3.37	3.8	3,140,893	3,156,912
Issued	-	-	-	-	-			
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	$ 5,635,446	$ 5,298,447

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, 2013.

The weighted average Black-Scholes option-pricing assumptions and the resultant fair values are as follows for warrants outstanding at December 31, 2013 and 2012 are as follows:

	Year ended December 31	
	2013	2012
Dividend yield	**0.00%**	0.00%
Expected volatility	**47.03%**	40.00%
Risk-free interest rate	**1.13%**	1.28%
Expected average term (years)	**1.6**	3.8
Fair value of warrants outstanding	**$ 5.30**	$ 2.51
Aggregate fair value of warrants outstanding	**$ 5,378,722**	$ 4,014,821

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. Based on changes in the Company's business and general stock market conditions since the warrants were issued in 2011 and 2012, in 2013, the Company undertook a review of its warrant fair value assumptions. The previous assumption for warrant expected life was the warrant's remaining contractual term. Based on the pattern of exercises of the warrants the Company has now reduced the expected life to a weighted average of 1.6 years as of December 31, 2013. The previous assumption for expected volatility in respect of the warrants was 40%. The Company is now calculating volatility based on historic share price fluctuations, which, at December 31, 2013, gave a weighted average expected volatility of 47.03%. The reduction in expected life has the effect of reducing the fair value of the warrants, whereas, the increase in expected volatility increases the fair value of the warrants.

(e) Stock-based compensation

The Company has three share-based compensation plans; the "2007 Plan", the "2011 Plan" 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.

Hereafter, information on options governed by the 2007 Plan and 2011 Plan is presented on a consolidated basis as the terms of the two plans are similar. Information on the Protiva Option Plan is presented separately.

On June 20, 2012, the shareholders of the Company approved a 550,726 increase in the number of stock-based compensation awards that the Company is permitted to issue.

Stock option activity for the Company's 2007 Plan and 2011 Plan

	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, 2010	1,083,432	$ 7.95	$ 7.72	$ 756,628	$ 734,881
Options granted	403,100	$ 2.14	$ 2.17		
Options exercised	(1,667)	$ 1.50	$ 1.52	$ 1,330	$ 1,346
Options forfeited, cancelled or expired	(71,547)	$ 27.42	$ 27.74		
Balance, December 31, 2011	1,413,318	$ 5.32	$ 5.38	$ 1,800	$ 1,821
Options granted	326,300	$ 4.16	$ 4.16		
Options exercised	(28,417)	$ 2.34	$ 2.34	$ 81,545	$ 81,598
Options forfeited, cancelled or expired	(62,355)	$ 21.27	$ 21.29		
Balance, December 31, 2012	1,648,846	$ 4.54	$ 4.54	$ 2,299,512	$ 2,300,996
Options granted	270,250	$ 7.52	$ 7.30		
Options exercised	(124,246)	$ 3.22	$ 3.13	$ 551,385	$ 535,369
Options forfeited, cancelled or expired	(64,085)	$ 21.87	$ 21.23		
Balance, December 31, 2013	1,730,765	$ 4.45	$ 4.32	$ 7,029,795	$ 6,825,608

Options under the 2007 Plan and 2011 Plan expire at various dates from December 14, 2014 to December 5, 2023.

The following table summarizes information pertaining to stock options outstanding at December 31, 2013 under the Company's 2007 Plan and 2011 Plan:

	Options outstanding December 31, 2013				Options exercisable December 31, 2013		
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	261,475	6.7	$ 1.71	$ 1.66	236,475	$ 1.71	$ 1.66
$2.10 to $2.60	279,000	7.7	$ 2.32	$ 2.25	236,175	$ 2.35	$ 2.28
$3.00 to $3.10	108,979	2.2	$ 3.04	$ 2.95	108,979	$ 3.04	$ 2.95
$3.73 to $3.85	153,250	6.1	$ 3.84	$ 3.73	150,650	$ 3.85	$ 3.74
$4.38 to $4.54	21,250	9.2	$ 4.53	$ 4.40	5,313	$ 4.53	$ 4.40
$4.65 to $5.60	576,846	6.2	$ 5.25	$ 5.10	474,909	$ 5.27	$ 5.12
$5.69 to $11.60	329,965	7.6	$ 7.79	$ 7.56	164,590	$ 7.45	$ 7.23
$1.50 to $11.60	1,730,765	6.6	$ 4.45	$ 4.32	1,377,091	$ 4.08	$ 3.96

At December 31, 2013, there were 1,377,091 options exercisable (December 31, 2012 – 1,315,155; December 31, 2011 - 1,015,224) with a weighted average exercise price of $3.96 (C$4.08). The weighted average remaining contractual life of exercisable options as at December 31, 2013 was 5.9 years. The aggregate intrinsic value of options exercisable at December 31, 2013 was $5,869,668.

A summary of the Company's non-vested stock option activity and related information for the year ended December 31, 2013 is as follows:

	Number of optioned common shares	Weighted average fair value (C$)	Weighted average fair value (US$)
Non-vested at December 31, 2012	333,691	$ 3.38	$ 3.38
Options granted	270,250	$ 7.52	7.30
Options vested	(219,966)	$ 4.47	4.34
Non-vested options forfeited	(30,300)	$ 3.74	3.63
Non-vested at December 31, 2013	353,675	$ 5.44	$ 5.28

The weighted average remaining contractual life for options expected to vest at December 31, 2013 was 9.2 years and the weighted average exercise price for these options was $5.73 (C$5.90) per share.

The aggregate intrinsic value of options expected to vest as at December 31, 2013 was $942,918 (December 31, 2012 - $450,620; December 31, 2011 - $nil).

The total fair value of options that vested during the year ended December 31, 2013 was $954,534 (2012 - $1,071,240; 2011 - $355,657).

Valuation assumptions for the Company's 2007 Plan and 2011 Plan

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, that approximately 98% of its options issued will ultimately vest, and has applied a forfeiture rate of 2.0% to all unvested options held as of December 31, 2013. 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		
	2013	2012	2011
Dividend yield	**0.00%**	0.00%	0.00%
Expected volatility	**111.61%**	120.40%	116.26%
Risk-free interest rate	**2.39%**	1.56%	2.51%
Expected average option term (years)	**9.6**	8.2	9.6
Fair value of options granted (C$)	**$ 6.96**	$ 3.83	$ 2.00

Stock-based compensation expense for the Company's 2007 Plan and 2011 Plan

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		
	2013	2012	2011
Research, development, collaborations and contracts expenses	**$ 621,807**	$ 772,367	$ 500,425
General and administrative expenses	**281,198**	209,923	133,024
Total	**$ 903,005**	$ 982,290	$ 633,449

At December 31, 2013, there remains $1,619,451 of unearned compensation expense related to unvested employee stock options to be recognized as expense over a weighted-average period of approximately 15 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, expire at various dates from February 4, 2014 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 Company's 2007 Plan or 2011 Plan 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, 2010	518,223	349,883	0.30	0.30
Options exercised	(27,202)	(18,366)	0.30	0.30
Options forfeited, cancelled or expired	-	-	-	-
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

The weighted average remaining contractual life of exercisable Protiva Options as at December 31, 2013 was 2.1 years.

The aggregate intrinsic value of Protiva Options outstanding at December 31, 2013 was $3,866,368. The intrinsic value of Protiva Options exercised in the year ended December 31, 2013 was $8,265 (2012 - $18,941; 2011 - $43,114).

Awards outstanding and available for issuance

Combining all of the Company's share-based compensation plans, at December 31, 2013, the Company has 2,050,039 options outstanding and a further 216,523 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.

Government grants for the year ended December 31, 2013 include $68,633 in funding from the U.S. National Institutes of Health (2012 - $274,254; 2011 - $344,744).

The Company's estimated claim for refundable Scientific Research and Experimental Development investment tax credits for the year ended December 31, 2013 is $42,804 (2012 - $nil; 2011 - $21,150).

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 17.7% (year ended December 31, 2012 – 17.5%; December 31, 2011 – 26.5%) to the loss before income taxes as shown in the following tables:

	Year ended December 31		
	2013	2012	2011
Computed taxes (recoveries) at Canadian federal and provincial tax rates	**$ (2,380,267)**	$ 7,486,268	$ (2,589,310)
Differences due to change in enacted tax rates	**(5,723)**	780,963	700,342
Difference due to change in tax rate on opening deferred taxes	**-**	2,636,377	3,369,825
Permanent and other differences	**1,820,842**	2,202,291	141,587
Change in valuation allowance	**565,147**	(2,515,765)	(1,622,445)
Utilization of investment tax credits	**-**	(10,590,133)	-
Income tax (recovery) expense	**$ -**	**$ -**	$ -

As at December 31, 2013, the Company has investment tax credits available to reduce Canadian federal income taxes of $6,859,352 (December 31, 2012 - $5,891,094) and provincial income taxes of $2,431,691 (December 31, 2012 - $1,914,623) and expiring between 2014 and 2033.

At December 31, 2013, the Company has scientific research and experimental development expenditures of $49,906,852 (December 31, 2012 - $48,357,146) available for indefinite carry-forward and $24,526,593 (December 31, 2012 - $21,457,451) 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	
	2013	2012
Deferred tax assets:		
Non-capital loss carryforwards	**$ 4,354,066**	$ 4,561,144
Research and development deductions	**8,858,564**	8,583,554
Book amortization in excess of tax	**2,170,922**	1,934,818
Share issue costs	**(136,329)**	(26,133)
Revenue recognized for tax purposes in excess of revenue recognized for accounting purposes	**667,542**	-
Tax value in excess of accounting value in lease inducements	**(2,821)**	8,041
Accounting value in excess of tax value in intangible assets	**-**	372,892
Provincial investment tax credits	**392,063**	304,545
Total deferred tax assets	**16,304,008**	15,738,861
Valuation allowance	**(16,304,008)**	(15,738,861)
Net deferred tax assets	**$ -**	$ -

8. Contingencies and commitments

Property lease

Effective July 29, 2009 the Company signed an amendment to the operating lease for its laboratory and office premises. The amended lease expires in July 2014 but the Company has the option to extend the lease to 2017 and then to 2022 and then to 2027. The amended lease included a signing incentive payment. In accordance with the Company's accounting policy the signing incentive payment is being amortized on a straight-line basis over the term of the amended lease.

The minimum commitment for rent and estimated operating costs for the year ended December 31, 2014 is $705,150.

The Company's lease expense, for the year ended December 31, 2013 of $1,224,794 has been recorded in the consolidated statements of operations and comprehensive income (loss) (2012 - $937,365; 2011 - $944,457).

The Company has netted $nil of sub-lease income against lease expense in the year ended December 31, 2013 (2012 - $172,034; 2011 - $196,555).

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 $7,179,170 (C$9,329,912). As at December 31, 2013, a cumulative contribution of $3,480,217 (C$3,701,571) has 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, 2013, the Company earned royalties on Marqibo sales in the amount of $39,581 (see note 3(e)), resulting in $990 recorded by the Company as royalty payable to TPC.

Contingently payable promissory notes

On March 25, 2008, Protiva declared dividends totaling $12,000,000. The dividends were paid by Protiva issuing promissory notes on May 23, 2008. Recourse against Protiva for payment of the promissory notes will be limited to Protiva's receipt, if any, of up to $12,000,000 in license payments from Merck (see note 3(f)). Protiva will pay these funds if and when it receives them, to the former Protiva shareholders in satisfaction of the promissory notes. As contingent items the $12,000,000 receivable and the related promissory notes payable are not recorded in the Company's consolidated balance sheet.

License and collaboration agreement with Halo-Bio RNAi Therapeutics, Inc. ("Halo-Bio")

On August 24, 2011, the Company entered into a license and collaboration agreement with Halo-Bio. Under the agreement, Halo-Bio granted the Company an exclusive license to its multivalent ribonucleic acid ("MV-RNA") technology. The agreement provides for the companies to work together to design and develop MV-RNA molecules to gene targets of interest to the Company and to combine MV-RNA molecules with the Company's LNP technology to develop therapeutic products.

The Company paid Halo-Bio an initial license fee of $100,000 and recorded this amount as a research, development, collaborations and contracts expense in the year ended December 31, 2011.

The agreement was amended on August 8, 2012 to adjust the future license fees and other contingent payments. The Company recorded a further $450,000 in license fees to research, development, collaborations and contracts expense in the year ended December 31, 2012, in respect of the agreement.

The Company terminated the agreement with Halo-Bio on July 31, 2013. There are no further payments due or contingently payable to Halo-Bio.

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.

The Company believes that it is probable they will use Arcturus's UNA technology for one of its product candidates in the foreseeable future.

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 are 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, 2013 was the accounts receivable balance of $116,556 (December 31, 2012 - $1,074,891).

All accounts receivable balances were current as at December 31, 2013 and December 31, 2012.

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. The Company limits exposure to liquidity risk on its liquid assets through maintaining its cash and cash equivalent deposits 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 less accounts payable and accrued liabilities

	December 31, 2013	December 31, 2012
Cash, cash equivalents and short term investments	**$ 68,716,531**	$ 47,024,124
Less: Accounts payable and accrued liabilities	**(3,680,462)**	(3,795,546)
	$ 65,036,069	$ 43,228,578

Foreign currency risk

For the year-ended December 31, 2013, the Company has converted its reporting currency to the US dollar, and the Company's functional currency remains as the Canadian dollar (note 2). 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 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, the Company maintained the funds raised in October 2013 in US dollars in order to achieve a natural foreign exchange hedge.

In November 2012, the Company used a forward exchange contract to convert US$45,000,000 into Canadian dollars. The Company has not entered into any other 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$)	**December 31, 2013**	December 31, 2012
Cash and cash equivalents	**$ 38,900,944**	$ 149,058
Accounts receivable	**10,840**	1,025,306
Accrued revenue	**225,892**	2,361,836
Accounts payable and accrued liabilities	**(1,889,480)**	(2,969,454)
	$ 37,248,196	$ 566,746

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, 2013	December 31, 2012
Trade accounts payable	**$ 1,217,242**	$ 805,790
Research and development accruals	**1,404,905**	310,492
License fee accruals	**-**	1,649,957
Professional fee accruals	**247,148**	602,113
Deferred lease inducements	**16,454**	48,078
Other accrued liabilities	**794,713**	379,116
	$ 3,680,462	$ 3,795,546

11. Subsequent events

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 may 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. In January 2014, the Company received $14,500,000 of the $16,500,000 near term payments as outlined in the terms of the Agreements.

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.

Base shelf prospectus

On February 28, 2014, the Company filed a short form base shelf prospectus with securities regulatory authorities in Canada, other than Quebec, and a corresponding shelf registration statement with the United States Securities and Exchange Commission on Form F-10.

The base shelf registration statement provides for the potential of offering, in Canada and the United States, up to $150,000,000 of Tekmira's common shares, warrants to purchase common shares and/or units comprising any combination of the foregoing from time to time over the next 25 months.

12. Interim financial data (unaudited)

	2013				
	Q1	Q2	Q3	Q4	**Total**
Revenue	2,131,519	2,843,806	2,962,809	7,526,016	**15,464,150**
Loss from operations	(2,993,811)	(3,070,968)	(3,652,191)	(2,436,248)	**(12,153,218)**
Net loss	(2,546,244)	(3,014,928)	(5,905,923)	(2,597,131)	**(14,064,226)**
Basic and diluted net loss per share	$ (0.18)	$ (0.21)	$ (0.41)	$ (0.15)	**$ (0.92)**

	2012				
	Q1	Q2	Q3	Q4	**Total**
Revenue	3,586,970	3,643,296	3,067,593	3,807,327	**14,105,186**
Loss from operations	(2,651,931)	(2,599,027)	(1,784,666)	(5,908,924)	**(12,944,548)**
Net (loss) income	(3,180,259)	(1,935,761)	(3,457,600)	38,185,616	**29,611,996**
Basic net (loss) income per share	$ (0.25)	$ (0.14)	$ (0.25)	$ 2.72	**$ 2.16**
Diluted net (loss) income per share	$ (0.25)	$ (0.14)	$ (0.25)	$ 2.51	**$ 2.07**

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, 2013, 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, 2013. In making its assessment, management used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework in Internal Control – Integrated Framework (1992) 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, 2013.

Attestation report of the registered public accounting firm

The Company is a "non-accelerated filer" within the meaning of Rule 12b-2 under the Exchange Act. Therefore, this annual report is not required to include an attestation report of our registered public accounting firm regarding our internal control over financial reporting.

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, 2013, 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

Directors and Management

The following table sets forth information relating to our directors and executive officers as at the date of this Annual Report:

Name	Age	Residence	Position
Michael Abrams [1]	57	Custer, Washington, U.S.A.	Executive Vice President, Chief Discovery Officer
Bruce Cousins [5]	53	Victoria, British Columbia, Canada	Executive Vice President, Chief Financial Officer
Kenneth Galbraith [2][4]	51	Surrey, British Columbia, Canada	Director
Donald Jewell [2] [3]	60	West Vancouver, British Columbia, Canada	Director
Frank Karbe [2]	45	Mill Valley, California, U.S.A.	Director
Daniel Kisner [3][4]	67	Rancho Santa Fe, California, U.S.A.	Director (Chairman)
Mark Kowalski [6]	59	Boston, Massachusetts, U.S.A.	Senior Vice President, Chief Medical Officer
Ian MacLachlan	50	Mission, British Columbia, Canada	Executive Vice President and Chief Technical Officer
Mark Murray	65	Seattle, Washington, U.S.A.	President, Chief Executive Officer and Director
Peggy Phillips [1][3]	60	Seattle, Washington, U.S.A.	Director

Notes:

(1) Ms. Phillips was appointed as a Director on February 12, 2014 to replace Dr. Abrams, who joined the Company as Chief Discovery Officer in January 2014.
(2) Member of Audit Committee.
(3) Member of Executive Compensation and Human Resources Committee.
(4) Member of Corporate Governance and Nominating Committee.
(5) Mr. Cousins was appointed Executive Vice President and Chief Financial Officer, effective October 7, 2013.
(6) Mr. Kowalski was appointed Senior Vice President and Chief Medical Officer, effective August 12, 2013.

Mark Murray, Ph.D., President, Chief Executive Officer and Director. Dr. Murray has served as our President, Chief Executive Officer and Director since May 2008 when Tekmira and Protiva merged. Previously, he was the President and CEO and founder of Protiva since its inception in 2000. Dr. Murray has over 20 years of experience in both the R&D and business development and management facets of the biotechnology industry. Dr. Murray has held senior management positions at ZymoGenetics and Xcyte Therapies. Since entering the biotechnology industry Dr. Murray has successfully completed numerous and varied partnering deals, directed successful product development programs, been responsible for strategic planning programs, raised venture capital, and executed extensive business development initiatives in the U.S., Europe and Asia. Dr. Murray obtained his Ph.D. in Biochemistry from the University of Oregon Health Sciences University and was a Damon Runyon-Walter Winchell post-doctoral research fellow for three years at the Massachusetts Institute of Technology.

Daniel Kisner, M.D., Chairman. Dr. Kisner has served as the Chairman of our Board since January 2010. Dr. Kisner is currently an independent consultant. From 2003 until December 2010, Dr. Kisner was a Partner at Aberdare Ventures. Prior to Aberdare, Dr. Kisner served as President and CEO of Caliper Technologies, a leader in microfluidic lab-on-a-chip technology. He led Caliper from a technology-focused start up to a publicly traded, commercially oriented organization. Prior to Caliper, he was President and COO of Isis Pharmaceuticals, Inc. Previously, Dr. Kisner was Division VP of Pharmaceutical Development for Abbott Laboratories and VP of Clinical Research and Development at SmithKline Beckman Pharmaceuticals. In addition, he held a tenured position in the Division of Oncology at the University of Texas, San Antonio School of Medicine and is certified by the American Board of Internal Medicine in Internal Medicine and Medical Oncology. Dr. Kisner holds a B.A. from Rutgers University and an M.D. from Georgetown University.

Michael Abrams, Ph.D., Executive Vice President, Chief Discovery Officer. Dr. Michael Abrams has served as our Executive Vice President and Chief Discovery Officer since January 2014. Prior to joining Tekmira, Dr. Abrams was Chief Innovation Officer and Vice President, Research and Development at CDRD Ventures Inc. Previously, Dr. Abrams was President and Chief Executive Officer (CEO) of Inimex. He was the founding CEO of AnorMED, Inc., the company that discovered and developed Mozobil, a drug for improving stem cell mobilization for patients undergoing stem cell transplantation. Mozobil was approved by the FDA in 2008 and AnorMED was acquired by Genzyme Corporation in 2006 for $580 million. Previously, Dr. Abrams was a Biomedical Research Manager for Johnson Matthey, plc., where he led the spin-off of the biomedical research group to form AnorMED. From 2009 to 2013, Dr. Abrams served as Board Chairman of Indel Therapeutics. Dr. Abrams has a Ph.D. in Chemistry from the Massachusetts Institute of Technology and a B.A. in Chemistry from Bowdoin College. In 2009 he was a co-recipient of the Georg Charles de Hevesy Nuclear Pioneer Award from the Society of Nuclear Medicine for his work in the invention of the radiopharmaceutical, Cardiolite.

Kenneth Galbraith, F.C.A., Director. Mr. Galbraith has served as our Director since January 2010. Since September 2013, Mr. Galbraith has held the position of Managing Director at Five Corners Capital. He previously was a General Partner at Ventures West, leading the firm's biotechnology practice from 2007 to 2013. Prior to joining Ventures West, Mr. Galbraith was Chairman and Interim CEO of AnorMED, a biopharmaceutical company focused on new therapeutic products in hematology, HIV and oncology, until its sale to Genzyme Corp. in a cash transaction worth almost $600 million. Previously, Mr. Galbraith spent 13 years in senior management with QLT Inc., a global biopharmaceutical company specializing in developing treatments for eye diseases, retiring in 2000 from his position as Executive VP and CFO. He currently serves on the Board of Directors of a number of private biotechnology companies as well as a NASDAQ-listed biotechnology company, MacroGenics, Inc. ("MGNX"). Mr. Galbraith earned a Bachelor of Commerce (Honours) degree from the University of British Columbia and is a Fellow of the Chartered Accountants of BC.

Donald Jewell, C.A., Director. Mr. Jewell has served as our Director since May 2008. Mr. Jewell is a Chartered Accountant with over 35 years of business experience. Mr. Jewell spent 20 years with KPMG and at the time of his departure, he was the managing partner in charge of KPMG's management consulting practice in British Columbia. Until March 2010, Mr. Jewell was Chairman of Cal Investments Limited, a London based hedge fund. Mr. Jewell is currently the managing director of a private Canadian holding company; a private equity investor and on the Board of three investee businesses; Trustee of a two substantial Canadian private trusts; and on the Board of the trusts' major operating companies. He is also on the Board of Directors of Lantic Inc.

Frank Karbe, Director. Mr. Karbe has served as our Director since January 2010. Mr. Karbe is currently the Executive Vice President and Chief Financial Officer of Exelixis, Inc., a NASDAQ-listed biotechnology company. Prior to joining Exelixis in 2004, Mr. Karbe worked as an investment banker for Goldman Sachs & Co., where he served most recently as Vice President in the healthcare group focusing on corporate finance and mergers and acquisitions in the biotechnology industry. Prior to joining Goldman Sachs in 1997, Mr. Karbe held various positions in the finance department of The Royal Dutch/Shell Group in Europe. Mr. Karbe holds a Diplom-Kaufmann from the WHU—Otto Beisheim Graduate School of Management, Koblenz, Germany (equivalent to a U.S. Masters of Business Administration).

Peggy Phillips, Director. Ms. Phillips has served as our Director since February 2014. Previously, Ms. Phillips was on the Board of Immunex and served as the Chief Operating Officer from 1999 until the company was acquired by Amgen in 2002. During her sixteen year career at Immunex, she held positions of increasing responsibility in research, development, manufacturing, sales, and marketing. As General Manager for Enbrel, she was responsible for clinical development, process development and regulatory affairs as well as the launch, sales and marketing of the product. Prior to joining Immunex, Ms. Phillips worked at Miles Laboratories for ten years. Ms. Phillips currently sits on the Board of Directors of Dynavax Technologies Corporation (NASDAQ: DVAX), a clinical stage biopharmaceutical company. Previously, Ms. Phillips served on the board of directors of Portola Pharmaceuticals, a biopharmaceutical company and on the board of Western Wireless, a cellular network operator, from 2004 until the acquisition of the company by Alltel in mid-2005. From 2003 until 2011, Ms. Phillips served on the Board of the Naval Academy Foundation. Ms. Phillips holds a B.S. and a M.S. in microbiology from the University of Idaho.

Bruce Cousins, Executive Vice President, Chief Financial Officer. Mr. Bruce Cousins has served as our Executive Vice President and Chief Financial Officer since October 2013. Mr. Cousins has over 22 years' experience both working for multi-million dollar companies and leading start-ups through to successful completion of their strategic growth plans. In 2004, Mr. Cousins joined Aspreva Pharmaceuticals and led its highly successful IPO. In 2008, he played a key leadership role in the eventual sale of Aspreva in a $915 million all-cash transaction. Prior to joining Aspreva, Mr. Cousins spent 14 years with Johnson & Johnson (J&J) working in operations and finance, both domestically and internationally. Prior to the pharmaceutical industry, Mr. Cousins was a chartered accountant with Deloitte & Touche. More recently, Mr. Cousins has held senior roles in the renewable energy sector, and from 2011 to 2013 he was Chief Executive Officer of Carmanah Technologies Corporation, a TSX-listed company. Mr. Cousins completed a Bachelor of Commerce degree from McMaster University in 1987 and received a Chartered Accountant designation in 1989.

Mark Kowalski, M.D., Ph.D., Senior Vice President, Chief Medical Officer. Dr. Mark Kowalski has served as our Chief Medical Officer (CMO) and Senior Vice President since August 2013. Dr. Kowalski has extensive experience in Phase I through Phase IV drug development and clinical trials in a wide variety of therapeutic areas including oncology, urology, infectious diseases, analgesia, allergy, rheumatology and cardiovascular diseases. His experience also includes basic scientific research on the molecular biology of HIV as well as clinical practice in internal medicine. Prior to joining Tekmira, Dr. Kowalski worked in the oncology and inflammation therapeutic area at Gilead Sciences, Inc. following Gilead's $510-million acquisition of YM BioSciences Inc. Previously, Dr. Kowalski had been CMO and Vice President of Regulatory Affairs at YM BioSciences Inc. Dr. Kowalski's experience also encompasses being the CMO and Vice President of Medical/Regulatory Affairs at Viventia Biotechnologies Inc. Prior to Viventia, he was the Senior Director of Medical Affairs at AAIPharma Inc. Dr. Kowalski holds a B.A. from Rutgers University and an M.D. and Ph.D. from the University of Kansas School of Medicine. He completed his postgraduate training in internal medicine and infectious diseases at Duke University and Harvard Medical School.

Ian MacLachlan, Ph.D., Executive Vice President, Chief Technical Officer. Dr. MacLachlan served as our Executive Vice President and Chief Scientific Officer from May 2008 to January 2014, at which time he became head of a newly formed group focused on medical countermeasures as Executive Vice President and Chief Technical Officer. Dr. MacLachlan was a co-founder of Protiva in 2000 and led Protiva's R&D program since the company's inception. A graduate of the University of Alberta, where he received both his B.Sc. and Ph.D. in Biochemistry, Dr. MacLachlan spent two years at the Vienna Bio-Center where some of the first experiments in systemic gene delivery were performed. Following this, Dr. MacLachlan conducted postdoctoral research at the Howard Hughes Medical Institute at the University of Michigan in the laboratory of Dr. Gary Nabel, a pioneer in the development of DNA-based therapeutics. Active in molecular therapeutics for more than a decade, he co-founded Protiva after five years leading the development of the gene transfer technology at Inex Pharmaceuticals. Dr. MacLachlan has been an invited speaker on nucleic acid delivery at the National Institutes of Health, the National Cancer Institute, numerous academic institutions and most major scientific meetings dealing with molecular therapy. He is a member of the New York Academy of Sciences, the Oligonucleotide Therapeutics Society and the American Society of Gene and Cell Therapy and serves on the Editorial Board of the journals Molecular Therapy, Molecular Therapy – Nucleic Acids and Nucleic Acid Therapeutics.

Board Practices

Our Directors have served in their respective capacities since their election or appointment and will serve until our next annual general meeting or until a successor is duly elected and qualified, unless their office is earlier vacated in accordance with the Law of Canada and our articles of incorporation. Our executives serve at the discretion of the board. The following table sets information on length of service of our current directors:

Director Name, Position with the Company, and Residency	**Period as a Director of the Company**	**Principal Occupation for the Past Five Years**	**Other Public Company Directorships Currently Held or Held during the Past Five Years**
KENNETH GALBRAITH Director British Columbia, Canada	Since Jan. 28, 2010	Five Corners Capital (Sept. 2013 – present) General Partner at Ventures West (Feb. 2007 – Sept. 2013	MacroGenics Inc. (Oct. 2013- present)
DONALD JEWELL (1) Director British Columbia , Canada	Since May 30, 2008	Managing Partner, RIO Industrial (financial management services) (Aug. 1995-present)	Rogers Sugar/Lantic (Sept. 2003 – Jan. 2013)
FRANK KARBE Director California, U.S.A.	Since Jan. 28, 2010	Chief Financial Officer of Exelixis, Inc. (Jan. 2004-present)	n/a

Director Name, Position with the Company, and Residency	Period as a Director of the Company	Principal Occupation for the Past Five Years	Other Public Company Directorships Currently Held or Held during the Past Five Years
DANIEL KISNER Director and Board Chair California, U.S.A.	Since Jan. 28, 2010	Independent Consultant (Sept. 2010 to present) Partner at Aberdare Ventures (2003-September 2010)	Dynavax Technologies Corporation (Jul. 2010 – present) Lpath Incorporated (Jun. 2012 - present) Conatus Pharmaceuticals (Feb. 2014 - present)
MARK MURRAY (1) Director, President and CEO Washington, U.S.A.	Since May 30, 2008	President, Chief Executive Officer and Director of Tekmira (May 2008 – present); President and Chief Executive Officer of Protiva Biotherapeutics Inc. (2000-present)	n/a
PEGGY PHILLIPS Director Washington, U.S.A.	Since Feb. 12, 2014	Independent Consultant (Previously Chief Operating Officer of Immunex Corporation)	Dynavax Technologies Corporation (Aug. 2006 - present)

Notes:

(1) Dr. Murray and Mr. Jewell were directors of Protiva before it was acquired by Tekmira on May 30, 2008.

Corporate Governance

Tekmira believes in building a strong governance foundation. We are subject to many provisions of the Sarbanes-Oxley Act of 2002 and related rules of the SEC, the governance standards of the NASDAQ and TSX and the rules and policies of the Canadian provincial securities regulators regarding audit committees, corporate governance and the certification of certain annual and interim filings. The Board of Directors continues to further its commitment to corporate governance by ensuring that all corporate governance documents are current, including the following documents:

- Audit Committee Charter;
- Corporate Governance and Nominating Committee Charter;
- Executive Compensation and Human Resource Committee Charter;
- Code of Conduct for Directors, Officers and Employees;
- Whistleblower Policy;
- Insider Trading Policy; and
- Majority Voting Policy.

Employees are periodically re-trained on the Code of Conduct.

The Board of Directors approved all current Committee Charters and Guidelines on August 20, 2013. All of the above listed documents are publicly available on the Tekmira website at www.tekmira.com.

NASDAQ Corporate Governance Exemptions

As a Canadian corporation listed on the NASDAQ Global Market, we are not required to comply with most of the NASDAQ corporate governance requirements, so long as we comply with Canadian corporate governance practices. In order to claim such an exemption, we must disclose the significant differences between our corporate governance practices and those required to be followed by U.S. domestic issuers under NASDAQ's corporate governance requirements. We are in compliance with the NASDAQ corporate governance requirements except as described below:

(1) Quorum Requirements

Rule 5620(c) of the NASDAQ Marketplace Rules requires that the minimum quorum requirement for a meeting of shareholders is 33.33% of the outstanding common shares. In addition, Rule 5620(c) requires that an issuer listed on NASDAQ state its quorum requirement in its bylaws. Our articles provide that a quorum for purposes of any meeting of shareholders of the Company consists of at least two persons who are, or who represent by proxy, one or more shareholders who, in the aggregate, hold at least 5% of the issues shares entitled to be voted at a meeting of shareholders. Our common shares are also listed on the Toronto Stock Exchange, the primary stock exchange in Canada, which does not prescribe a minimum quorum requirement. We follow applicable Canadian laws with respect to quorum requirements.

(2) Shareholder Approval

Rule 5635 of the NASDAQ Marketplace Rules requires shareholder approval to be obtained prior to the issuance of securities in connection with the undertaking of certain corporate actions. The circumstances under which shareholder approval is required under the NASDAQ Marketplace Rules are not identical to the circumstances under which shareholder approval is required under Canadian law and the requirements of the Toronto Stock Exchange. For example, but without limitation, Rule 5635 requires shareholder approval of most equity compensation plans and material revisions to such plans. This requirement covers plans that provide for the delivery of both newly issued and treasury securities. We follow the Toronto Stock Exchange rules with respect to the requirements for shareholder approval of potential transactions, including, without limitation, shareholder approval of equity compensation plans and material revisions to such plans.

Benefits on Termination of Directors

We do not have any contractual obligations arising if we terminate a director. However, historical practice has been to waive our stock options plan's post termination 30 day cancellation and extend stock options through to their original expiration date.

Committees of our Board of Directors

To assist in the discharge of its responsibilities, our Board of Directors currently has three committees: the Audit Committee, the Executive Compensation and Human Resources Committee, and the Corporate Governance and Nominating Committee.

Audit Committee

The members of our Audit Committee are Mr. Karbe, Mr. Jewell and Mr. Galbraith, each of whom is a non-employee member of our Board of Directors. Mr. Karbe chairs the Audit Committee. Our Board of Directors has determined that each of the members of the Audit Committee is financially literate and are each an "audit committee financial expert" (as is currently defined under Item 407(d)(5) of Regulation S-K promulgated under applicable SEC rules. Our Board of Directors has determined that each member of our Audit Committee is an independent member of our Board of Directors under the current requirements of the NASDAQ and the rules and regulations of the SEC and Canadian provincial securities regulatory authorities.

Our Audit Committee is responsible for overseeing our financial reporting processes on behalf of our Board of Directors. Our auditor and independent registered public accounting firm reports directly to our Audit Committee. Specific responsibilities of our Audit Committee include:

- overseeing the work of the auditors engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Company;
- evaluating the performance, and assessing the qualifications, of our auditor and recommending to our Board of Directors the appointment of, and compensation for, our auditor for the purpose of preparing or issuing an auditor report or performing other audit, review or attest services;
- subject to the appointment of our auditor in accordance with applicable corporate formalities, determining and approving the engagement of, and compensation to be paid to, our auditor;
- determining and approving the engagement, prior to the commencement of such engagement, of, and compensation for, our auditor and to perform any proposed permissible non-audit services;
- reviewing our financial statements and management's discussion and analysis of financial condition and results of operations and recommending to our Board of Directors whether or not such financial statements and management's discussion and analysis of financial condition and results of operations should be approved by our Board of Directors;
- conferring with our auditor and with our management regarding the scope, adequacy and effectiveness of internal financial reporting controls in effect;

- establishing procedures for the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by our employees of concerns regarding questionable accounting or auditing matters; and

- reviewing and discussing with our management and auditor, as appropriate, our guidelines and policies with respect to risk assessment and risk management, including our major financial risk exposures and investment and hedging policies and the steps taken by our management to monitor and control these exposures.

A copy of our Audit Committee's charter is available on our website at www.tekmira.com.

Executive Compensation and Human Resources Committee

The members of our Executive Compensation and Human Resources Committee (the "Compensation Committee") are Ms. Phillips, Mr. Jewell, and Dr. Kisner. Ms. Phillips currently chairs the Compensation Committee. Our Board of Directors has determined that each of the members of the Compensation Committee has the appropriate experience for their Committee responsibilities based on their past or current senior roles in our industry. Our Board of Directors has determined that each member of our Compensation Committee is an independent member of our Board of Directors under the current requirements of the NASDAQ and as defined in the rules and regulations of the Canadian provincial securities regulatory authorities.

Specific responsibilities of our Compensation Committee include:

- reviewing and making recommendations to our Board of Directors for our chief executive officer and other executive officers: annual base salary; annual incentive bonus, including the specific goals and amount; equity compensation; employment agreements, severance arrangements and change in control agreements/provisions; and any other benefits, compensations, compensation policies or arrangements;

- reviewing and making recommendations to our Board of Directors regarding our overall compensation plans and structure, including incentive compensation and equity based plans;

- reviewing and making recommendations to our Board of Directors regarding the compensation to be paid to our non-employee directors, including any retainer, committee and committee chair fees and/or equity compensation;

- reviewing any report to be included in our periodic filings or proxy statement; and

- acting as administrator of our equity compensation plans.

A copy of our Compensation Committee's charter is available on our website at www.tekmira.com.

Corporate Governance and Nominating Committee

The members of our Corporate Governance and Nominating Committee are Mr. Galbraith and Dr. Kisner. Mr. Galbraith currently chairs the committee. Our Board of Directors has determined that each member of our Corporate Governance and Nominating Committee is an independent member of our Board of Directors under the current requirements of the NASDAQ and as defined in the rules and regulations of the Canadian provincial securities regulatory authorities.

Specific responsibilities of our Corporate Governance and Nominating Committee include:

- establishing criteria for Board membership and identifying, evaluating, reviewing and recommending qualified candidates to serve on the Board;

- evaluating, reviewing and considering the recommendation for nomination of incumbent directors for re-election to the Board;

- periodically reviewing and assessing the performance of our Board, including Board committees;

- developing and reviewing a set of corporate governance principles for Tekmira.

A copy of our Corporate Governance and Nominating Committee's charter is available on our website at www.tekmira.com.

Our Board of Directors is responsible for approving nominees for election as directors. However, as is described above, our Corporate Governance and Nominating Committee is responsible for reviewing, soliciting and recommending nominees to our Board of Directors.

In evaluating prospective nominees, our Corporate Governance and Nominating Committee looks for the following minimum qualifications: strong business acumen, previous experience as an executive or director with successful companies, standards of integrity and ethics, and a willingness and ability to make the necessary time commitment to diligently perform the duties of a director. Nominees are selected with a view to our best interests as a whole, rather than as representative of any particular stakeholder or category of stakeholders. Our Corporate Governance and Nominating Committee will also consider the skill sets of the incumbent directors when recruiting replacements to fill vacancies in our Board of Directors. Our Board of Directors prefers a mix of experience among its members to maintain a diversity of viewpoints and ensure that our Board of Directors can achieve its objectives. When a vacancy on our Board of Directors occurs, in searching for a new director, the Corporate Governance and Nominating Committee will identify particular areas of specialization which it considers beneficial, in addition to the general qualifications, having regard to the skill sets of the other members of our Board of Directors. Potential nominees and their respective references are interviewed extensively in person by the Corporate Governance and Nominating Committee before any nomination is endorsed by that committee. All nominations proposed by the Corporate Governance and Nominating Committee must receive the approval of our Board of Directors.

Code of Ethics

The Board of Directors of Tekmira Pharmaceuticals Corporation has adopted a Code of Business Conduct (Code) for all directors, officers and employees of the Company.

The purpose of this Code is to promote:

- Honest and ethical conduct, including ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- Full, fair, accurate, timely, and understandable disclosure in the reports that Tekmira is required to file with such securities exchange or quotation system or regulatory agency as may from time to time apply to Tekmira and in other public communications made by Tekmira;
- Compliance with all applicable laws, rules and regulations.

The Company's Code of Business Conduct and related documents have been posted on Tekmira's website at www.tekmira.com . In addition, any substantive amendments we make to our Code, and any material waivers we grant to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions will be disclosed on our website.

Item 11. Executive Compensation

Named Executive Officers

For the purposes herein, our Named Executive Officers include our Chief Executive Officer, Mark Murray, Chief Financial Officer, Bruce Cousins (from October 2013, Ian Mortimer until October 2013), Chief Technical Officer, Ian MacLachlan, Chief Medical Officer, Mark Kowalski, and Senior Vice President of Pharmaceutical Development, Peter Lutwyche.

Compensation Discussion and Analysis

Compensation Principles, Components and Policies

The Executive Compensation and Human Resources Committee, or the Compensation Committee, is responsible for recommending the compensation of our executive officers to the Board of Directors. In establishing compensation levels for executive officers, the Compensation Committee seeks to accomplish the following goals:

- to recruit and subsequently retain highly qualified executive officers by offering overall compensation which is competitive with that offered for comparable positions in other biotechnology companies;
- to motivate executives to achieve important corporate performance objectives and reward them when such objectives are met; and
- to align the interests of executive officers with the long-term interests of shareholders through participation in our stock-based compensation plan (the "2011 Plan").

Benchmarking of Executive Compensation

In the fourth quarter of 2010, Lane Caputo Compensation Inc. was paid $30,000 to review Executive and Director Compensation and to benchmark against companies in the biotechnology industry. Lane Caputo benchmarked compensation against a group of relevant peer companies. The 16 companies selected in Tekmira's peer group were:

Aeterna Zentaris Inc.	Neuralstem Inc
AVI Biopharma Inc.	NovaBay Pharmaceuticals Inc
Celldex Therapeutics Inc.	OncoGeneX Pharmaceuticals Inc.

Cleveland Biolabs Inc.	Peregrine Pharmaceuticals Inc
Curis Inc.	Rexahn Pharmaceuticals Inc
Idera Pharmaceuticals Inc	Sangamo BioSciences Inc
Inhibitex Inc	Transition Therapeutics Inc
Inovio Pharmaceuticals Inc	YM BioSciences Inc.

Based on the review of the Lane Caputo report, no changes were made to the base salaries of the Named Executive Officers except for Dr. Murray whose salary was increased from $338,100 (his salary was then denominated in Canadian dollars and was C$345,000) to $350,000 effective January 1, 2011.

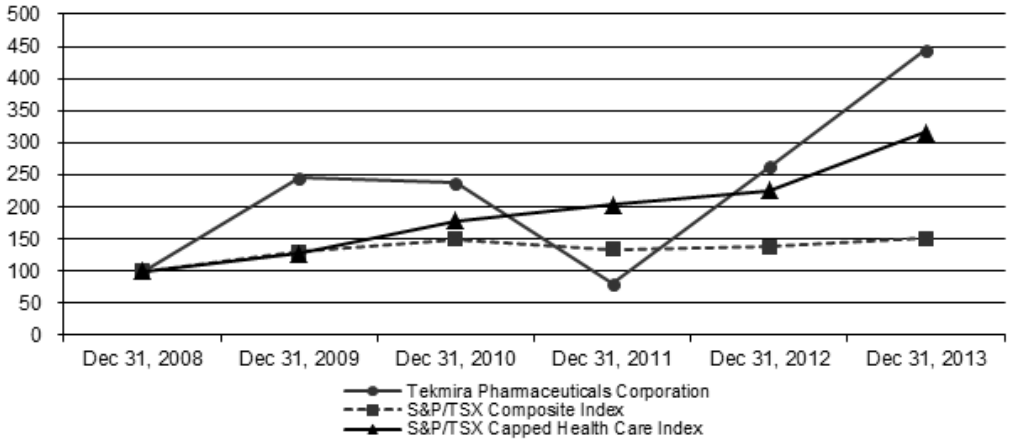
During 2011 and 2012, given business conditions, no increases to executive compensation were considered.

During 2013, we participated in and purchased the Radford Global US Life Sciences Survey (US Edition). This survey is generally aimed at non-executive level staff. Tekmira considered 50 th percentile data from the survey for companies with 50 to 149 employees in determining salaries for Dr. Kowalski and Mr. Cousins who were hired during 2013. 50 th percentile market data was presented to the Compensation Committee by the CEO at the end of 2013 and was considered in the determination of executive salaries for 2014.

We intend to conduct a director and officer compensation benchmarking exercise in 2014.

Performance Graph

The performance of our share price is one of the factors the Compensation Committee takes into account when considering executive compensation. 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, 2008, with a cumulative total shareholder return on the S&P/TSX Composite Total Return and S&P/TSX Capped Health Care Indices.



Elements of Executive Compensation

Currently, our executive compensation package consists of the following components: base salary, discretionary annual incentive cash bonus, long-term incentives in the form of share options and health and retirement benefits generally available to all of our employees. We have not granted any share appreciation rights to our directors and officers. We have established the above components for our executive compensation package because we believe a competitive base salary and opportunity for annual cash bonuses are required to recruit and retain key executives. Our 2011 Plan enables our executive officers to participate in our long term success and aligns their interests with those of the shareholders. Additional details on the compensation package for Named Executive Officers are described in the following sections.

Base Salary

The Named Executive Officers are paid a base salary as an immediate means of rewarding the Named Executive Officer for efforts expended on our behalf. Base salaries for Named Executive Officers are evaluated against the responsibilities inherent in the position held, the individual's experience and past performance and industry benchmarks.

Annual Incentive Cash Bonuses

Our policy is to pay bonuses at the end of our fiscal year, assuming that we have sufficient financial stability, based upon our level of achievement of major corporate objectives as determined by the Compensation Committee and the Board of Directors.

Long-Term Incentives—Share Options

Share options are granted to reward individuals for current performance, expected future performance and to align the long term interest of Named Executive Officers with shareholders. Share option grants are not based on pre-determined performance goals, either personal or corporate. Awards reflect the qualitative judgment of the Board of Directors as to whether a grant should be awarded for retention or incentive purposes and if so what the size and timing of such awards should be as well as taking into consideration the third party compensation survey completed for us in the third quarter of 2010.

Share options are generally awarded to executive officers at commencement of employment and periodically thereafter after taking into consideration the recommendations of the Lane Caputo compensation report completed in Q4 2010. Any special compensation other than cash bonuses is typically granted in the form of options. The exercise price for the options is the closing price of the Common Shares on the last trading day before the grant of the option. See subsection *"Equity Compensation Plans"* for a description of the terms of the Company's current omnibus share compensation plan.

Pension Plans or Similar Benefits for Named Executive Officers

We do not have any pension or deferred compensation plans for our Named Executive Officers. We do, however, have a Registered Retirement Savings Plan ("RRSP") Matching Plan whereby the Company matches employee contributions to their RRSPs up to a certain percentage of each employee's salary. The RRSP matching plan is available to all full-time employees of Tekmira. Each year the Compensation Committee will approve a matching percentage of up to 5% of the employee salaries. The matching percentage is the same for all employees and is not based on performance.

Health care plans

All Tekmira employees receive health care coverage as a benefit. In addition, Drs. Murray and MacLachlan are entitled to reimbursement of any health expenses incurred, including their families' health expenses, that are not covered by our insurance, as part of their employment contracts.

Other compensation

As part of his employment contract, Dr. Murray's compensation also includes reimbursement of personal tax filing service fees up to a maximum of $10,000 per year.

Named Executive Officer compensation for 2011, 2012 and 2013

Base salary

There were no changes to Named Executive Officer salaries from 2011 to 2012.

The salaries of Drs. Murray and Kowalski are denominated in US dollars. The salaries of the other Named Executive Officers are denominated in Canadian dollars.

Effective January 1, 2013, the base salary of Dr. Murray was increased by 8% to $377,500, the base salary of Dr. MacLachlan was increased by 7% to $305,851 (C$315,000), the base salary of Mr. Mortimer was increased by 7% to $296,141 (C$305,000) and the base salary of Dr. Lutwyche was increased by 7% to $233,029 (C$240,000) (Canadian dollar denominated salaries have been converted to US dollars at the 2013 average exchange rate of 0.9710). These increases reflect cost of living increases, performance and retention measures and take into consideration the lack of increases in 2012.

Effective January 1, 2014, the base salary of Dr. Murray was increased by 6% to $400,000, the base salary of Dr. MacLachlan was increased by 2.5% to $303,568 (C$322,875), the base salary of Mr. Cousins remained at $286,762 (C$305,000), the base salary of Dr. Lutwyche was increased by 3% to $232,418 (C$247,200), and the base salary of Dr. Kowalski was increased by 2.5% to $333,125 (Canadian dollar denominated salaries have been converted to US dollars at the December 31, 2013 exchange rate of 0.9402).

Annual Incentive Cash Bonuses

For 2011, Dr. Murray, Mr. Mortimer and Dr. MacLachlan were eligible to earn cash bonuses of up to a maximum of 50% and Dr. Lutwyche up to a maximum of 35% of their respective base salaries based on the Board of Directors determination of achievement of corporate goals. Our objectives for 2011, as established by the Board of Directors included: continued enrollment of patients in the Phase 1 clinical trial for TKM-PLK1; completion of pre-clinical toxicology studies for TKM-Ebola and filing of a TKM-Ebola Investigational New Drug application; continued execution of the TKM-Ebola contract including manufacturing scale-up and lyophilization of LNP technology; generate pre-clinical proof of concept for our next product candidate; and, maintain a strong cash position. Although good progress was made on the achievement of the 2011 objectives, given business conditions, no cash bonuses were paid.

For 2012, maximum percentage bonus potential for Drs. Murray, MacLachlan and Lutwyche was the same as for 2011. Our objectives for 2012, as established by the Board of Directors included: completing enrollment of patients in the Phase 1 clinical trial for TKM-PLK1; completion of a Phase 1 clinical trial for TKM-Ebola; continued execution of TKM-Ebola contract including manufacturing scale-up and lyophilization of LNP technology; and, complete an equity offering and maintain a strong cash position. At the end of 2012, the Compensation Committee recommended, and the Board of Directors approved, the payment of 200% of the maximum cash bonus for 2012 for Drs. Murray, MacLachlan, and Lutwyche. The bonus payments at the end of 2012 included the amounts the Named Executives had forgone in the 2011 and achievement against corporate objectives. The bonus was not based on any quantitative weighting of individual corporate performance goals or other formulaic process.

Maximum percentage bonus potential for Drs. Murray, MacLachlan and Lutwyche for 2013 was the same as for 2012. The maximum percentage bonus potential for Mr. Mortimer was 50%, for Mr. Cousins it was 40%, and for Dr. Kowalski it was 35%. Our objectives for 2013 were assigned quantitative weighting, and were established by the Board of Directors which included: initiating a TKM-PLK1 Phase 2 efficacy clinical trial (30%); file a TKM-ALDH2 IND (10%); treat first subject with new formulations of TKM-Ebola (10%); nominate a new product development candidate (20%); maintain cash runway into 2015 (10%); generate business development revenue (15%); and other organizational objectives (5%). At the end of 2013, the Compensation Committee recommended, and the Board of Directors approved, the payment of executive bonuses of up to 87.5% of the maximum. The maximum bonus level was based on the progress and achievement of the listed corporate objectives based on the indicated quantitative weighting.

The President and Chief Executive Officer reviewed the performance of Drs. MacLachlan, Lutwyche and Kowalski in light of their goals and achievements for 2013. Mr. Mortimer did not receive a performance bonus as he resigned from the Company. Dr. Murray's bonus payout was based solely on the achievement of 2013 Corporate Goals. Mr. Cousin's bonus was also based solely on achievement of corporate goals. The individual goals for Drs. MacLachlan, Lutwyche and Kowalski also contributed to determination of their bonus percentages.

The bonus percentages, as a percentage of annual salary, earned by the Named Executive Officers for 2013 were therefore:

Dr. Mark Murray	43.8%
Mr. Bruce Cousins	35.0%
Dr. Ian MacLachlan	37.2%
Dr. Mark Kowalski	30.6%
Dr. Peter Lutwyche	30.6%

Long-Term Incentives—Share Options

Share options are typically granted to employees, including executives, at the end of the year. At the end of 2010 there wasn't enough room in our option pool to grant executive options. At our June 2011 Annual General Meeting our shareholders approved an increase to our available share option pool of 273,889. In August 2011 we granted 35,000 options to Dr. Murray, 25,000 options to Dr. MacLachlan, 25,000 options to Mr. Mortimer and 20,000 options to Dr. Lutwyche. These share option grants were recommended by the Compensation Committee and approved by independent Directors based on corporate and individual performance and vested upon the final resolution of the litigation. See Item 1. " *Business* " for details of the litigation.

In December 2011, as part of our annual compensation review, we granted 35,000 options to Dr. Murray, 25,000 options to Dr. MacLachlan, 25,000 options to Mr. Mortimer and 20,000 options to Dr. Lutwyche. These share option grants were recommended by the Compensation Committee and approved by independent Directors based on corporate and individual performance and our needs for fiscal 2012. These options vest one quarter immediately and one quarter on the next three anniversaries of their grant date.

In December 2012, as part of our annual compensation review, we granted 35,000 options to Dr. Murray, 25,000 options to Dr. MacLachlan, 25,000 options to Mr. Mortimer and 20,000 options to Dr. Lutwyche. These share option grants were recommended by the Compensation Committee and approved by independent Directors based on corporate and individual performance and our needs for fiscal 2013. These options vest one quarter immediately and one quarter on the next three anniversaries of their grant date.

In 2013, we granted 150,000 options to Mr. Cousins and 50,000 options to Dr. Kowalski in conjunction with their appointments as executive officers of Tekmira. These options vest one quarter immediately and one quarter on the next three anniversaries of their grant date.

In February 2014, as part of our annual compensation review, we granted 35,000 options to Dr. Murray, 25,000 options to each of Dr. MacLachlan and Dr. Kowalski, and 20,000 options to Dr. Lutwyche. These share option grants were recommended by the Compensation Committee and approved by independent Directors based on corporate and individual performance and our needs for fiscal 2014. Mr. Cousins did not receive any performance options in February 2014 as he was appointed in October 2013. These options vest one quarter immediately and one quarter on the next three anniversaries of their grant.

Compensation Committee Interlocks and Insider Participation

No member of the Compensation Committee during fiscal year 2013 served as one of our officers, former officers or employees nor received directly or indirectly compensation from the Company, other than in the capacity as a member of our Board and Compensation Committee. There was no direct or indirect control by the members of the Compensation Committee of the Company. No member of the Compensation Committee, directly or indirectly, is the beneficial owner of more than 10% of the Company's equity, nor are they an executive officer, employee, director, general partner or a managing member of one or more entities that are together the beneficial owners of more than 10% of the Company's equity. The Compensation Committee members are not aware of any business or personal relationship between (i) a member of the Compensation Committee and any person who has provided or is providing advice to the Compensation Committee; and (ii) an executive officer of the company and any firm or other person who is employed or is employing such person to provide advice to the Compensation Committee. During fiscal year 2013, none of our executive officers served as a director or member of the compensation committee of any other entity, one of whose executive officers served as a member of our Board of Directors or Compensation Committee, and none of our executive officers served as a member of the board of directors of any other entity, one of whose executive officers served as a member of our Compensation Committee.

Compensation Report from the Board of Directors

The Board of Directors has reviewed and discussed "Compensation Discussion and Analysis" required by Item 402(b) of Regulation S-K with management and, based on such review and discussions, has recommended that the "Compensation Discussion and Analysis" be included in this Annual Report on Form 10-K.

BOARD OF DIRECTORS

Daniel Kisner, Board Chair
Franke Karbe
Kenneth Galbraith
Mark Murray
Peggy Phillips
Donald Jewell

Executive Compensation details

The following disclosure sets out the compensation for our Named Executive Officers and our directors for the financial year ended December 31, 2013.

Summary Compensation Table

The following table sets out the compensation paid, payable or otherwise provided to our Named Executive Officers during the our three most recently completed financial years ending on December 31. All amounts are expressed in US dollars unless otherwise noted. Amounts paid or denominated in Canadian dollars are converted to US dollars for presentation purposes at the average exchange rate for the year.

Name and principal position	Year	Salary (US$)	Salary (C$)	Options (US$) [1]	Annual incentive cash bonus (US$)	All other compensation (US$) [2]	Total compensation (US$)
Dr. Mark Murray	2013	377,500	NA	-	160,359	43,792	581,651
President and	2012	350,000	NA	165,768	347,984	62,040	925,792
Chief Executive Officer	2011	350,000	NA	136,533	-	42,358	528,891
Mr. Bruce Cousins [3]	2013	69,480	71,558	1,247,159	24,318	2,085	1,343,040
Executive Vice President, Finance	2012	-	-	-	-	-	-
and Chief Financial Officer	2011	-	-	-	-	-	-
Mr. Ian Mortimer [4]	2013	262,351	270,199	-	-	-	262,351
Executive Vice President, Finance	2012	285,184	285,000	118,405	285,184	8,556	697,329
and Chief Financial Officer	2011	288,336	285,000	97,523	-	-	385,860
Dr. Ian MacLachlan	2013	305,851	315,000	-	113,739	9,422	429,011
Executive Vice President	2012	295,190	295,000	118,405	295,190	8,856	717,642
and Chief Technical Officer	2011	298,454	295,000	97,523	-	1,456	397,433
Dr. Mark Kowalski [5]	2013	128,623	NA	261,819	36,240	3,859	430,541
Senior Vice President	2012	-	NA	-	-	-	-
and Chief Medical Officer	2011	-	NA	-	-	-	-
Dr. Peter Lutwyche	2013	233,029	240,000	-	71,365	6,991	311,385
Senior Vice President, Pharmaceutical	2012	225,145	225,000	94,724	157,602	6,754	484,225
Development	2011	227,634	225,000	78,019	-	-	305,653

Notes:

1. The fair value of each option is estimated as at the date of grant using the most widely accepted option pricing model, Black-Scholes. The fair value of options computed on the grant date is in accordance with FASB ASC Topic 718. The weighted average option pricing assumptions and the resultant fair values for options awarded to Named Executive Officers in 2011 are as follows: expected average option term of ten years; a zero dividend yield; a weighted average expected volatility of 115.5%; and, a weighted average risk-free interest rate of 2.51%. The weighted average option pricing assumptions and the resultant fair values for options awarded to Named Executive Officers in 2012 are as follows: expected average option term of ten years; a zero dividend yield; a weighted average expected volatility of 121.5%; and, a weighted average risk-free interest rate of 1.46%. The weighted average option pricing assumptions and the resultant fair values for options awarded to Named Executive Officers for fiscal 2013 are as follows: expected average option term of ten years; a zero dividend yield; a weighted average expected volatility of 114.7%; and, a weighted average risk-free interest rate of 2.49%. Options awarded to the Named Executive Officers in February 2014 are not included in the above table.

2. All other compensation in 2012 and 2013 includes Registered Retirement Savings Plan, or RRSP, or equivalent matching payments of 3% of salary. In 2012 and 2013 all of our full-time employees and executives were eligible for RRSP or equivalent matching payments. In 2011 RRSP match payments had been suspended to conserve cash. Dr. Murray's other compensation also includes reimbursement of personal tax filing service fees up to a maximum of $10,000 per year. Dr. Murray's and Dr. MacLachlan's other compensation also includes amounts claimed under their contractual entitlement to reimbursement of any health expenses incurred, including their families' health expenses, that are not covered by insurance.

3. Mr. Cousins commenced employment with Tekmira in October 2013 with an annual salary of $286,762 (C$305,000) and was granted 150,000 new hire stock options at that time.

4. Mr. Mortimer resigned from Tekmira in October 2013.

5. Dr. Kowalski commenced employment in August 2013 with an annual salary of $325,000 and was granted 50,000 new hire stock options at that time.

Grants of Plan-Based Awards Table

Name	Date of Grant (1)	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards(2) Threshold ($)	Target ($)	Maximum ($)	Stock Awards: Number of Shares of Stock(3)	Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards ($)	Grant Date Fair Value of Stock and Option Awards ($)(4)
Bruce Cousins	10/7/13	$ -	$ -	$ -	-	150,000	$ 8.86	$ 1,247,159
Executive Vice President and Chief Financial Officer (from October 2013)								
Mark Kowalski, M.D., Ph.D.	8/12/13	$ -	$ -	$ -	-	50,000	$ 5.58	$ 261,819
Senior Vice President and Chief Medical Officer								
Mark Murray, Ph.D.	N/A	$ -	$ -	$ -	-	-	$ -	$ -
President and Chief Executive Officer								
Ian Mortimer	N/A	$ -	$ -	$ -	-	-	$ -	$ -
Executive Vice President and Chief Financial Officer (until October 2013)								
Ian MacLachlan, Ph.D.	N/A	$ -	$ -	$ -	-	-	$ -	$ -
Executive Vice President and Chief Medical Officer								
Peter Lutwyche, Ph.D.	N/A	$ -	$ -	$ -	-	-	$ -	$ -
Senior Vice President, Pharmaceutical Development								

Notes:

1. The stock option awards reported in the 2013 Grants of Plan-Based Awards Table were granted pursuant to our Designated Plans.

2. We do not have any non-equity incentive plans. A discretionary annual incentive cash bonus may be included as a component of our executive compensation package – see Item 11 subsection " *Elements of Executive Compensation* ".

3. Our 2011 Plan allows for the issuance of tandem stock appreciation rights, restricted stock units and deferred stock units, but we have not granted any stock awards to date.

4. The Grant Date Fair Value, computed in accordance with FASB ASC Topic 718, represents the value of stock options granted during the year. The amounts reported in the Grants of Plan-Based Awards Table reflect our accounting expense and may not represent the amounts our named executive officers will actually realize from the awards. Whether, and to what extent, a named executive officer realizes value will depend on our actual operating performance, stock price fluctuations and that named executive officer's continued employment. Our Designated Plans, governed substantially under the same terms as our 2011 Plan, provide that the option exercise price is always 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. These stock options vest one quarter immediately, and one quarter on the next three anniversaries of their grant date. As the closing market price of the common shares is denominated in Canadian dollars, the Exercise Price and the Grant Date Fair Value shown in the table have been translated to US dollars using the average exchange rate for the year.

Outstanding Option-Based Awards at December 31, 2013

There were no outstanding stock awards for any Named Executive Officer as at December 31, 2013. The following tables set out all option awards, outstanding as at December 31, 2013, for each Named Executive Officer:

Name	Option-based awards - total outstanding options [1]					
	Number of securities underlying unexercised options (#)	Option exercise price (C$)	Option exercise price (US$)	Option grant date [2]	Value of unexercised in-the-money options [3] (C$)	Value of unexercised in-the-money options [4] (US$)
Dr. Mark Murray [5]	219,428	0.44	0.44	September 13, 2005	1,757,618	1,646,739
	27,007	0.44	0.44	March 2, 2008	216,326	202,679
	30,000	4.65	4.37	August 31, 2008	114,000	107,183
	25,000	1.80	1.69	December 9, 2008	166,250	156,308
	25,000	3.85	3.62	January 28, 2010	115,000	108,123
	35,000	2.40	2.26	August 10, 2011	211,750	199,087
	35,000	1.70	1.60	December 23, 2011	236,250	222,122
	35,000	5.15	4.84	December 10, 2012	115,500	108,593
Mr. Ian Mortimer	3,000	7.00	6.58	December 15, 2004	4,350	4,090
	15,000	3.10	2.91	July 26, 2005	80,250	75,451
	2,500	5.40	5.08	March 29, 2006	7,625	7,169
	7,500	5.40	5.08	March 29, 2006	22,875	21,507
	3,750	3.00	2.82	August 3, 2006	20,438	19,215
	3,750	3.00	2.82	August 3, 2006	20,438	19,215
	3,750	3.00	2.82	August 3, 2006	20,438	19,215
	3,750	3.00	2.82	August 3, 2006	20,438	19,215
	10,000	6.50	6.11	August 7, 2007	19,500	18,334
	6,000	5.60	5.27	April 1, 2008	17,100	16,077
	8,000	5.60	5.27	April 1, 2008	22,800	21,437
	70,000	5.60	5.27	April 1, 2008	199,500	187,570
	11,000	1.80	1.69	December 9, 2008	73,150	68,776
	16,000	3.85	3.62	January 28, 2010	73,600	69,199
	25,000	2.40	2.26	August 10, 2011	151,250	142,205
	25,000	1.70	1.60	December 23, 2011	168,750	158,659
	25,000	5.15	4.84	December 10, 2012	82,500	77,567
Mr. Bruce Cousins	150,000	9.12	8.57	October 7, 2013	-	-
Dr. Ian MacLachlan	30,000	4.65	4.37	August 31, 2008	114,000	107,183
	16,000	1.80	1.69	December 9, 2008	106,400	100,037
	16,000	3.85	3.62	January 28, 2010	73,600	69,199
	25,000	2.40	2.26	August 10, 2011	151,250	142,205
	25,000	1.70	1.60	December 23, 2011	168,750	158,659
	25,000	5.15	4.84	December 10, 2012	82,500	77,567
Dr. Mark Kowalski	50,000	5.75	5.41	August 12, 2013	135,000	126,927
Dr. Peter Lutwyche	18,000	1.80	1.69	December 9, 2008	119,700	112,542
	16,000	3.85	3.62	January 28, 2010	73,600	69,199
	20,000	2.40	2.26	August 10, 2011	121,000	113,764
	20,000	1.70	1.60	December 23, 2011	135,000	126,927
	20,000	5.15	4.84	December 10, 2012	66,000	62,053

Name	Option-based awards - outstanding vested options [1]					
	Number of securities underlying unexercised vested options (#)	Option exercise price (C$)	Option exercise price (US$)	Option grant date [2]	Value of unexercised in-the-money options [3] (C$)	Value of unexercised in-the-money options [4] (US$)
Dr. Mark Murray [5]	219,428	0.44	0.44	September 13, 2005	1,757,618	1,646,739
	27,007	0.44	0.44	March 2, 2008	216,326	202,679
	30,000	4.65	4.37	August 31, 2008	114,000	107,183
	25,000	1.80	1.69	December 9, 2008	166,250	156,308
	18,750	3.85	3.62	January 28, 2010	86,250	81,092
	35,000	2.40	2.26	August 10, 2011	211,750	199,087
	26,250	1.70	1.60	December 23, 2011	177,188	166,592
	17,500	5.15	4.84	December 10, 2012	57,750	54,297
Mr. Ian Mortimer [4]	3,000	7.00	6.58	December 15, 2004	4,350	4,090
	15,000	3.10	2.91	July 26, 2005	80,250	75,451
	2,500	5.40	5.08	March 29, 2006	7,625	7,169
	7,500	5.40	5.08	March 29, 2006	22,875	21,507
	3,750	3.00	2.82	August 3, 2006	20,438	19,215
	3,750	3.00	2.82	August 3, 2006	20,438	19,215
	3,750	3.00	2.82	August 3, 2006	20,438	19,215
	3,750	3.00	2.82	August 3, 2006	20,438	19,215
	10,000	6.50	6.11	August 7, 2007	19,500	18,334
	6,000	5.60	5.27	April 1, 2008	17,100	16,077
	8,000	5.60	5.27	April 1, 2008	22,800	21,437
	70,000	5.60	5.27	April 1, 2008	199,500	187,570
	11,000	1.80	1.69	December 9, 2008	73,150	68,776
	16,000	3.85	3.62	January 28, 2010	73,600	69,199
	25,000	2.40	2.26	August 10, 2011	151,250	142,205
	18,750	1.70	1.60	December 23, 2011	126,563	118,994
	12,500	5.15	4.84	December 10, 2012	41,250	38,783
Mr. Bruce Cousins	37,500	9.12	8.57	October 7, 2013	-	-
Dr. Ian MacLachlan	30,000	4.65	4.37	August 31, 2008	114,000	107,183
	16,000	1.80	1.69	December 9, 2008	106,400	100,037
	16,000	3.85	3.62	January 28, 2010	73,600	69,199
	25,000	2.40	2.26	August 10, 2011	151,250	142,205
	18,750	1.70	1.60	December 23, 2011	126,563	118,994
	12,500	5.15	4.84	December 10, 2012	41,250	38,783
Dr. Mark Kowalski	12,500	5.75	5.41	August 12, 2013	33,750	31,732
Dr. Peter Lutwyche	18,000	1.80	1.69	December 9, 2008	119,700	112,542
	16,000	3.85	3.62	January 28, 2010	73,600	69,199
	20,000	2.40	2.26	August 10, 2011	121,000	113,764
	15,000	1.70	1.60	December 23, 2011	101,250	95,195
	10,000	5.15	4.84	December 10, 2012	33,000	31,027

Name	Option-based awards - outstanding unvested options [1]					
	Number of securities underlying unexercised unvested options (#)	Option exercise price (C$)	Option exercise price (US$)	Option grant date [2]	Value of unexercised in-the-money options [3] (C$)	Value of unexercised in-the-money options [4] (US$)
Dr. Mark Murray [5]	6,250	3.85	3.62	January 28, 2010	28,750	27,031
	8,750	1.70	1.60	December 23, 2011	59,063	55,531
	17,500	5.15	4.84	December 10, 2012	57,750	54,297
Mr. Ian Mortimer	6,250	1.70	1.60	December 23, 2011	42,188	39,665
	12,500	5.15	4.84	December 10, 2012	41,250	38,783
Mr. Bruce Cousins	112,500	9.12	8.57	October 7, 2013	-	-
Dr. Ian MacLachlan	6,250	1.70	1.60	December 23, 2011	42,188	39,665
	12,500	5.15	4.84	December 10, 2012	41,250	38,783
Dr. Mark Kowalski	37,500	5.75	5.41	August 12, 2013	101,250	95,195
Dr. Peter Lutwyche	5,000	1.70	1.60	December 23, 2011	33,750	31,732
	10,000	5.15	4.84	December 10, 2012	33,000	31,027

Notes to tables:

(1) Options vest 25% immediately, and 25% at each of the 1 st , 2 nd , and 3 rd anniversaries of the grant date except for options granted on March 29, 2006 that vested immediately, options granted on July 26, 2005, August 3, 2006 and August 10, 2011 that vested based on the completion of certain performance criteria and options granted on April 1, 2008 that vested on May 31, 2009.
(2) Options expire 10 years after the grant date.
(3) This amount is the difference between Tekmira's December 31, 2013 closing TSX share price of C$8.45 and the exercise price of the option (denominated in Canadian dollars).
(4) This amount is the difference between Tekmira's December 31, 2013 closing TSX share price of C$8.45 and the exercise price of the option converted to US dollars at the December 31, 2013 exchange rate of 1.0636.
(5) Dr. Murray holds options to purchase 365,000 common shares of Protiva, a wholly-owned subsidiary of Tekmira, with an exercise price of C$0.30. As part of the business combination between Tekmira and Protiva, Tekmira agreed to issue 246,435 common shares of Tekmira on the exercise of these stock options giving an effective cost per Tekmira stock option of C$0.44. The shares reserved for issue on the exercise of the Protiva options are equal to the number of Tekmira common shares that would have been issued if the options had been exercised before the completion of the business combination and the shares issued on exercise of the options had then been exchanged for Tekmira common shares. See subsection *"Share ownership – Additional Shares Subject to Issue"*.

Named Executive Officer Incentive Plan Awards – Options Exercised During the Year

No options were exercised by any of the Named Executive Officers during the year ended December 31, 2013.

Named Executive Officer Incentive Plan Awards – Value Vested During the Year

The aggregate value of executive options vesting during the year ended December 31, 2013 measured at their date of vesting by comparing option exercise price to closing market price on that day was:

Name	Option-based awards value vested during the year (C$)	Option-based awards value vested during the year (US$)
Dr. Mark Murray	234,900	226,442
Mr. Bruce Cousins	-	-
Mr. Ian Mortimer	167,405	161,274
Dr. Ian MacLachlan	167,405	161,274
Dr. Mark Kowalski	-	-
Dr. Peter Lutwyche	134,580	129,830

Termination and Change of Control Benefits

The following table provides information concerning the value of payments and benefits following the termination of employment of the Named Executive Officers under various circumstances. Payments vary based on the reason for termination and the timing of a departure. The below amounts are calculated as if the Named Executive Officer's employment had been terminated on December 31, 2013. Receipt of payments on termination is contingent on the Named Executive Officer delivering a release to Tekmira.

Payment Type	Dr. Mark Murray	Mr. Bruce Cousins	Dr. Ian MacLachlan	Dr. Mark Kowalski	Dr. Peter Lutwyche
Involuntary termination by Tekmira for cause					
Cash payment	$ -	$ -	$ -	$ -	$ -
Option values [1]	$ 2,620,461	$ -	$ 576,401	$ 31,732	$ 421,727
Benefits [2]	$ -	$ -	$ -	$ -	$ -
Involuntary termination by Tekmira upon death					
Cash payment	$ -	$ -	$ -	$ -	$ -
Option values [1]	$ 2,620,461	$ -	$ 576,401	$ 31,732	$ 421,727
Benefits [2]	$ -	$ -	$ -	$ -	$ -
Involuntary termination by Tekmira without cause					
Cash payment	$ 1,116,771	$ 310,308	$ 863,192	$ 360,092	$ 276,223
Option values [1][3]	$ 2,859,266	$ -	$ 654,849	$ 63,464	$ 421,727
Benefits [2]	$ 157,747	$ 10,716	$ 22,577	$ 91,154	$ 8,053
Involuntary termination by Tekmira without cause or by Executive with good reason after a change in control of the Company					
Cash payment	$ 1,116,771	$ 310,308	$ 863,192	$ 360,092	$ 304,625
Option values [1][3]	$ 2,859,266	$ -	$ 654,849	$ 63,464	$ 468,972
Benefits [2]	$ 157,747	$ 10,716	$ 22,577	$ 91,154	$ 9,344

Notes:

(1) This amount is based on the difference between Tekmira's December 31, 2013 TSX closing share price of C$8.45 and the exercise price of the options that were vested as at December 31, 2013 converted into US at 0.9402.

(2) Ongoing benefit coverage has been estimated assuming that benefits will be payable for the full length of the severance period which would be the case if new employment was not taken up during the severance period. Benefits include extended health and dental coverage that is afforded to all of the Company's full time employees. Dr. Murray's benefits also include a $2,000,000 life insurance policy, the reimbursement of up to $10,000 per annum in professional fees related to the filing of his tax returns. Dr. Murray and Dr. MacLachlan's benefits also include an estimate of the costs of reimbursement of health expenses incurred, including their families' health expenses, that are not covered by insurance.

(3) This amount is based on the difference between Tekmira's December 31, 2013 TSX closing share price of C$8.45 and the exercise price of the options that were vested as at December 31, 2013 and options that would vest during the severance period.

Director Compensation

The Board of Directors has adopted formal policies for compensation of non-executive directors. In order to align the interests of directors with the long-term interests of shareholders, the directors have determined that the most appropriate form of payment for their services as directors is through participation in the Tekmira's equity compensation plans, as well as an annual cash retainer and fees for meeting attendance. Directors who also serve as a member of our management team receive no additional consideration for acting as a director.

The Board has adopted a policy that non-executive directors are granted options upon appointment as a director and are eligible for annual grants thereafter. Our Board fees are denominated in U.S. dollars. The Board fee schedule for 2011 was as follows: an annual cash retainer of $18,000 per annum ($25,500 for the Chairman of the Board; an additional $5,000 for the Chairman of the Audit Committee; an additional $2,500 for members of the Audit Committee; and an additional $2,500 for the Chairman of any other Board constituted committees) and meeting fees of $500 to $1,750. In the fourth quarter of 2010, Lane Caputo conducted a review of Executive and Director Compensation. Lane Caputo's report recommended the following Board fee schedule: an annual cash retainer of $25,000 per annum ($50,000 for the Chairman of the Board; an additional $10,000 for the Chairman of the Audit Committee; an additional $6,000 for members of the Audit Committee; an additional $7,500 for the Chairman of the Compensation and Governance Committees; and, an additional $5,000 for members of the Compensation and Governance Committees) and Board meeting fees of $1,750 and no fees for Board committee meetings. The Board approved this new fee schedule effective January 1, 2011 but resolved to defer any payments in excess of the prior fee schedule until such time as the Company was more financially stable. Following the settlement of the litigation with Alnylam and AlCana in November 2012, the Board resolved to release the excess fees and continue with the Lane Caputo recommended Board fee schedule on an ongoing basis.

Non-executive directors earned cash compensation of $245,750 in 2013 as annual retainer and meeting attendance fees. We also reimburse directors for travel expenses they incur on behalf of the Company, including the cost of attending meetings of the Board.

The compensation provided to the directors, excluding Dr. Murray who is included in the Named Executive Officer disclosure above, for our most recently completed financial year of December 31, 2013 is:

Name	Fees earned ($)	Option-based awards (1) ($)	Total ($)
Daniel Kisner (Board Chair)	68,750		68,750
Donald Jewell	44,750		44,750
Frank Karbe (Audit Committee Chair)	43,750		43,750
Kenneth Galbraith (Corporate Governance and Nominating Committee Chair)	47,250		47,250
Michael Abrams (2)	41,250		41,250

Notes:

(1) No option-based awards were granted to the directors in 2013. We expect to grant 7,500 options to each of the directors if an increase in our option pool is approved at our next Annual General Meeting.

(2) Dr. Abrams resigned from the Board on December 31, 2013 and joined the Company as Executive Vice President and Chief Discovery Officer on January 1, 2014.

Director options are priced at the closing market price of the previous trading day and vest immediately upon granting. We typically grants options to directors at the time of their first appointment to the Board and then on an annual basis at the end of the fiscal year. At our June 2011 Annual General Meeting our shareholders approved an increase to our available share option pool of 273,889. In August 2011 we granted 5,000 options to each of our non-executive Board members. In December 2011 we granted 5,000 options to each of our non-executive Board members. At our June 2012 Annual General and Special Meeting our shareholders approved an increase to our available share option pool of 550,726. In December 2012 we granted 5,000 options to each of our non-executive Board members.

We recently reset our new Board member option grant level from 10,000 to 15,000 and our ongoing Board member annual grant level from 5,000 to 7,500. Annual grants will continue to vest immediately but instead of vesting immediately, new Board member grants now vest 25% immediately, and 25% at each of the 1st, 2nd, and 3rd anniversaries of the grant date. For the 2013 year, we expect to issue an annual grant of options to each of our non-executive Board members following our 2014 Annual General Meeting.

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

Equity Compensation Plans

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

At Tekmira’s annual general and special meeting of shareholders on June 22, 2011, shareholders approved the 2011 Plan and a 273,889 increase in the number common shares in respect of which Awards may be granted under the 2011 Plan. Tekmira’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. The 2011 Plan replaces the 2007 Plan. The 2007 Plan will continue to govern the options granted there under. No further options will be granted under Tekmira’s 2007 Plan. At Tekmira’s annual general and special meeting of shareholders on June 20, 2012, shareholders approved a 550,726 increase in the number common shares in respect of which Awards may be granted under the 2011 Plan.

There is an aggregate of 1,893,954 common share options currently issued and outstanding and available for future issuance as common shares under the Tekmira Plans, the Designated Plans and the Protiva Option Plan which represents approximately 8.6% of the Company's issued and outstanding common shares at March 21, 2014.

Since January 1996, the equivalent of 721,792 common shares of Tekmira have been issued pursuant to the exercise of options granted under the Tekmira Plans (which represents approximately 3.3% of the Company's issued and outstanding common shares), and as of March 21, 2014, there were 1,472,078 common shares of Tekmira subject to options outstanding under Tekmira's Plans (which represents approximately 6.7% of the Company's current issued and outstanding common shares). The number of common shares of Tekmira remaining available for future grants of options as at March 21, 2014 was 97,398 (which represents approximately 0.4% of the Company's current issued and outstanding common shares).

On May 30, 2008, as a condition of the acquisition of Protiva, the Company reserved 350,457 common shares for the exercise of up to 519,073 Protiva share options ("Protiva Options"). These shares are reserved for the issue to those shareholders who did not exercise their Protiva share options and exchange the shares of Protiva issuable on exercise for common shares of Tekmira on the closing of the business combination with Protiva. The shares reserved for them are equal to the same number of Tekmira common shares they would have received if they had exercised their options and transferred the shares to Tekmira. The Protiva Options are not part of Tekmira's 2011 Plan or 2007 Plan and the Company is not permitted to grant any further Protiva stock options. The Protiva Options all have an exercise price $0.27 (C$0.30) ($0.39 (C$0.44) after applying the rate at which they will be converted into Tekmira shares) and expire on dates ranging from January 21, 2015 to March 1, 2018. As at March 21, 2014, Protiva options equating to 31,183 common shares had been exercised and Protiva options equating to 319,274 common shares remained outstanding.

Additionally, Tekmira granted a total of 200,000 options in 2013 to two executive officers of Tekmira 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. See Item 11 "*Executive Compensation* ", subsection " *Named Executive Officer compensation for 2011, 2012 and 2013* " for details.

Securities authorized for issuance under equity compensation plans

The following table sets out information for the five stock-based compensation plans as at March 21, 2014:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights (a)	Weighted-average exercise price (US$) of outstanding options, warrants, and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders			
2007 and 2011 Plan	1,374,680	$ 5.64	97,398
Protiva Option Plan	319,274	0.39	-
Equity compensation plans not approved by security holders			
Designated Plans	200,000	6.94	-
Total	**1,893,954**	$ **4.89**	**97,398**

Security ownership of certain beneficial owners and management

The following table sets forth certain information regarding the beneficial ownership of our Common Stock as of March 21, 2014, by (i) each person (or group of affiliated persons) who is known by us to own beneficially more than 5% of the outstanding shares of the Common Stock, (ii) each of our directors, (iii) each of our executive officers whose name appears in the summary compensation table under the caption "Executive Compensation," and (iv) all of our executive officers and directors as a group. Unless otherwise indicated in the footnotes to the table, the business address of the 5% stockholders is 100-8900 Glenlyon Parkway, Burnaby BC V5J 5J8, and the stockholders listed have direct beneficial ownership and sole voting and investment power with respect to the shares beneficially owned. For each individual and group included in the table below, percentage ownership is calculated by dividing the number of shares beneficially owned by such person or group by the sum of the 21,945,838 shares of Common Stock outstanding on March 21, 2014, plus the number of shares of Common Stock that such person or group had the right to acquire within 60 days after March 21, 2014.

Name and address of Beneficial Owner [1]	Number of Common Shares	+	Number of Warrants [2]	+	Number of Shares Acquirable within 60 days [3]	=	Total Beneficial Ownership	Percentage of Common Stock Ownership Beneficially Owned [4]
Holders of more than 5% of our common stock								
Franklin Resources Inc. [5]	2,022,400		—		—		2,022,400	9.22%
Steven T. Newby [6]	1,206,000		—		—		1,206,000	5.50%
Directors and Named Officers								
Daniel Kisner	12,500		6,250		25,000		43,750	*
Michael Abrams [7]	10,200		2,500		81,092		93,792	*
Kenneth Galbraith	15,240		—		20,000		35,240	*
Donald Jewell	479,755		90,000		25,000		594,755	2.70%
Frank Karbe	5,000		2,500		20,000		27,500	*
Peggy Phillips	—		—		3,750		3,750	*
Mark Murray	64,961		10,000		407,685		482,646	2.16%
Ian MacLachlan	171,534		5,000		124,500		301,034	1.36%
Bruce Cousins	—		—		37,500		37,500	*
Mark Kowalski	—		—		18,750		18,750	*
Peter Lutwyche	38,758		2,500		84,000		125,258	*
All directors and current executive officers as a group (11 persons)	797,948		118,750		847,277		1,763,975	7.70%

Notes:

* Less than 1% of our outstanding common stock.
(1) Unless otherwise indicated, the address of each stockholder is c/o Tekmira Pharmaceuticals Corp.; 100-8900 Glenlyon Parkway, Burnaby BC, V6J 5J8.
(2) These warrants were acquired through participation in Tekmira's June 2011 public share offering and/or Tekmira's February 2012 private placement.
(3) Reflects shares issuable upon the exercise of stock options that are exercisable or will become exercisable within 60 days after March 21, 2014.
(4) Based on 21,945,838 common shares issued and outstanding, as of March 21, 2014. Shares of common stock subject to options currently exercisable, or exercisable within 60 days of March 21, 2014, are deemed outstanding for computing the percentage of the common stock beneficially owned by the person holding such options but are not deemed outstanding for computing the percentage of any other person.
(5) According to Schedule 13G filed with the SEC on January 10, 2014 by Franklin Resources Inc., as of December 31, 2013, Franklin Resources Inc. is the record and beneficial owner of 2,022,400 of our common stock. The address of Franklin Resources Inc. is One Franklin Parkway, San Mateo, CA 94403-1906.
(6) According to Schedule 13G/A filed with the SEC on February 18, 2014 by Steven T. Newby, as of December 31, 2013, Steven T. Newby is the record and beneficial owner of 1,206,000 of our common stock. The address of Steven T. Newby is 12716 Split Creek Court, North Potomac, MD 20878
(7) Dr. Abrams was a Director until December 31, 2013.

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

Related Party Transaction

The Audit Committee has been tasked with responsibility to review and approve related party transactions. The policy provides that management shall present related party transactions to the Audit Committee for approval.

We have not entered into any related party transactions that require disclosure in this Form 10-K.

Director Independence

The Board of Directors has determined that each of the current directors, listed below, is an "independent director" under the listing standards of the NASDAQ Global Market

Dr. Dan Kisner
Mr. Ken Galbraith
Mr. Donald Jewell
Mr. Frank Karbe
Ms. Peggy Phillips

In assessing the independence of the directors, the Board of Directors determines whether or not any director has a material relationship with us (either directly or as a partner, shareholder or officer of an organization that has a relationship with us). The Board of Directors considers all relevant facts and circumstances in making independence determinations, including the existence and scope of any commercial, industrial, banking, consulting, legal, accounting, charitable and familial relationships. Dr. Murray is not independent as he is Tekmira's President and CEO.

Dr. Kisner was a Partner at Aberdare Ventures from 2003 until December 2010. Dr. Kisner is currently an independent consultant, and he does not solicit or provide consulting services to Tekmira. Dr. Kisner serves on the board of several other public biotechnology companies. He is independent under our categorical standards.

Mr. Galbraith was General Partner of Ventures West, prior to joining Five Corners Capital in 2013, where he is currently a General Partner. He currently serves on the Board of Directors of a number of private biotechnology companies. He is independent under our categorical standards.

Mr. Jewell spent 20 years with KPMG and was Managing Partner of the firm's management consulting practice at the time of his departure. He is currently the managing director of a private Canadian holding company, Trustee of two Canadian private trusts, and on the Board of the trusts' major operating companies. He is also on the Board of Directors of Lantic Inc. He is independent under our categorical standards.

Mr. Karbe was an investment banker for Goldman Sachs & Co., where he served most recently was Vice President in the healthcare group. He is currently the Executive Vice President and Chief Financial Officer of Exelixis Inc., a NASDAQ-listed biotechnology company. He is independent under our categorical standards.

Ms. Phillips was on the Board of Immunex and served as the Chief Operating Officer from 1999 until the company was acquired by Amgen in 2002. From 2003 until 2011, Ms. Phillips served on the Board of the Naval Academy Foundation. She is independent under our categorical standards.

Item 14. Principal Accountant Fees and Services

Fees billed by external auditors

See Item 10. " *Directors, Executive Officers and Corporate Governance"* , subsection "Committees of our Board of Directors" for discussion on audit committee responsibilities.

The aggregate fees billed for professional services rendered by KPMG for the years ended December 31, 2013 and December 31, 2012 are as follows:

	December 31, 2013	December 31, 2012
Audit fees (1)	$ 234,146	$ 187,120
Audit-related fees (2)	8,253	0
Tax fees (3)	85,189	33,570
Other fees	0	0
Total fees	$ 327,588	$ 220,690

(1) Quarterly reviews, review of SEC listing documents and review of prospectus.
(2) Preliminary review of Sarbanes-Oxley internal controls
(3) Tax compliance and tax planning.

Audit Committee Pre-Approval Policies and Procedures

The Company has complied with the Institute of Chartered Accountants of British Columbia (ICABC) Rules of Professional Conduct on auditor independence and Public Company Accounting Oversight Board (PCAOB) independence standards (the Rules) by adopting pre-approval policies and procedures for non-audit services to be provided by the Company's auditors, KPMG LLP (KPMG). As they relate to public companies these Rules are very similar to the revised independence rules of the Securities and Exchange Commission (SEC) that became effective on May 6, 2003. They include prohibitions or restrictions on services that may be provided to audit clients and require that all services provided to a listed entity audit client, including its subsidiaries, be pre-approved by the client's audit committee.

The Rules identify the following ten types of non-audit services that are deemed inconsistent with an auditors' independence ("Prohibited Services"): bookkeeping or other services related to the audit client's accounting records or financial statements; financial information systems design and implementation; appraisal or valuation services for financial reporting purposes; actuarial services for items recorded in the financial statements; internal audit outsourcing services; management functions; human resources; certain corporate finance and other services; legal services; certain expert services unrelated to the audit.

The Rules provide further details as to the specific nature of services within these categories that are prohibited. The Company and its subsidiaries will not engage KPMG to carry out any Prohibited Service. For services that are not prohibited the following pre-approval policies will apply:

- The Audit Committee will pre-approve all audit services provided by KPMG through their recommendation of KPMG as shareholders' auditors at the Company's annual meeting and through the Audit Committee's review of KPMG's annual audit plan.

- Annually, the Audit Committee will review a list of audit, audit-related, tax and other non-audit services and recommend pre-approval of these services for the upcoming year. Any additional requests will be addressed on a case-by-case specific engagement basis as described below. The Audit Committee will be informed quarterly of the services on the pre-approved list for which the auditor has been engaged.

- All requests to engage KPMG for other services will be addressed on a case-by-case specific engagement basis. The Company employee making the request is to submit the request for service to the Company's Executive Vice President, Finance. The request for service should include a description of the service, the estimated fee, a statement that the service is not a Prohibited Service and the reason KPMG is being engaged.

For additional requests for services where the aggregate fees are estimated to be less than or equal to $20,000, recommendations, in respect of each engagement, will be submitted by Executive Vice President, Finance, the official responsible for coordinating services with KPMG to the chairman of the Audit Committee for consideration and approval. The full Audit Committee will subsequently be informed of the service, at its next meeting. The engagement may commence upon approval of the chairman of the Audit Committee. For services where the aggregate fees are estimated to be greater than $20,000, recommendations, in respect of each engagement, will be submitted by the Company's Executive Vice President, Finance to the full Audit Committee for consideration and approval, generally at its next meeting. The engagement may commence upon approval of the Committee.

Of the fees reported in the table above under the heading "Principal Accountant Fees and Services – Fees Billed by External Auditor", none of the fees billed by KPMG LLP were approved by the Company's audit committee pursuant to the de minimus exception provided by Section (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

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 27, 2014.

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 27, 2014.

Signatures	Capacity in Which Signed
/s/ Daniel Kisner Daniel Kisner	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/ Kenneth Galbraith Kenneth Galbraith	Director
/s/ Donald Jewell Donald Jewell	Director
/s/ Frank Karbe Frank Karbe	Director
/s/ Peggy Phillips Peggy Phillips	Director

INDEX TO THE EXHIBITS

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).
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 and Articles of the Company dated May 14, 2013.
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).

Exhibit Number	Description
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).

Exhibit Number	Description
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
10.31**#	Employment Agreement with Bruce Cousins dated October 7, 2013
10.32††**	Services Agreement by and among Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Company dated January 12, 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
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
21.1**	List of Subsidiaries (incorporated herein by reference to Exhibit 8.1 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).
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

* 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 or compensatory plan or arrangement.

Exhibit 3.2

RECEIVED FOR DEPOSIT AT
THE RECORDS OFFICE ON

MAY 14, 2013.

TEKMIRA PHARMACEAUTICALS CORPORATION
(the " Company")

ORDINARY RESOLUTION PASSED BY THE SHAREHOLDERS OF THE COMPANY AT THE ANNUAL AND SPECIAL MEETING OF THE SHAREHOLDERS COMPANY HELD ON MAY 14, 2013

" **BE IT RESOLVED AS AN ORDINARY RESOLUTION THAT:**

1. the Articles of the Company be altered by adding the text substantially in the form attached as Exhibit "B" to the Information Circular of Tekmira Pharmaceuticals Corporation dated March 27, 2013 as and at Section 13.9 of the Articles of the Company; and

2. any one or more of the directors or officers of the Company be authorized to take all such actions, do such things and execute and deliver, whether under the common seal of the Company or otherwise, all such agreements, instruments, statements, forms and other documents as they may be advised by counsel so to do in connection with this alteration of the Articles."

CERTIFIED A TRUE COPY as of the 14 th day of May, 2013.

R. Hector MacKay-Dunn
Title: Corporate Secretary

EXHIBIT “B” TO THE INFORMATION CIRCULAR
OF
TEKMIRA PHARMACEUTICALS CORPORATION

Nominations of Directors

13.9 Only persons who are nominated in accordance with the following procedures shall be eligible for election as directors of the Company. Nominations of persons for election to the board of directors of the Company may be made at any annual general meeting of shareholders, or at any special meeting of shareholders if one of the purposes for which the special meeting was called was the election of directors:

(a) by or at the direction of the board, including pursuant to a notice of meeting;

(b) by or at the direction or request of one or more shareholders pursuant to a proposal made in accordance with the Act, or a requisition of the shareholders made in accordance with the provisions of the Act; or

(c) by any person (a “Nominating Shareholder”): (A) who, at the close of business on the date of the giving by the Nominating Shareholder of the notice provided for below in this Section 13.9 and at the close of business on the record date for notice of such meeting, is entered in the securities register of the Company as a holder of one or more shares carrying the right to vote at such meeting or who beneficially owns shares that are entitled to be voted at such meeting; and (B) who complies with the notice procedures set forth below in this Section 13.9.

In addition to any other requirements under applicable laws, for a nomination to be made by a Nominating Shareholder, the Nominating Shareholder must have given notice thereof that is both timely (in accordance with this Section 13.9) and in proper written form (in accordance with this Section 13.9) to the Secretary of the Company at the principal executive offices of the Company.

To be timely, a Nominating Shareholder’s notice to the Secretary of the Company must be made:

(a) in the case of an annual general meeting of shareholders, not less than 30 nor more than 65 days prior to the date of the annual general meeting of shareholders; provided, however, that in the event that the annual general meeting of shareholders is to be held on a date that is less than 50 days after the date (the “Notice Date”) on which the first public announcement of the date of the annual general meeting was made, notice by the Nominating Shareholder may be made not later than the close of business on the tenth (10th) day following the Notice Date; and

(b) in the case of a special meeting (which is not also an annual general meeting) of shareholders called for the purpose of electing directors (whether or not called for other purposes), not later than the close of business on the fifteenth (15th) day following the day on which the first public announcement of the date of the special meeting of shareholders was made.

The time periods for the giving of a Nominating Shareholder's notice set forth above shall in all cases be determined based on the original date of the applicable annual meeting or special meeting of shareholders, and in no event shall any adjournment or postponement of a meeting of shareholders or the announcement thereof commence a new time period for the giving of such notice.

To be in proper written form, a Nominating Shareholder's notice to the Secretary of the Company must set forth:

(a) as to each person whom the Nominating Shareholder proposes to nominate for election as a director: (A) the name, age, business address and residential address of the person; (B) the principal occupation or employment of the person, and the principal occupation or employment of the person for the past 5 years; (C) the citizenship of such person; (D) the class or series and number of shares in the capital of the Company which are controlled or which are owned beneficially or of record by the person as of the record date for the meeting of shareholders (if such date shall then have been made publicly available and shall have occurred) and as of the date of such notice; and (E) any other information relating to the person that would be required to be disclosed in a dissident's proxy circular in connection with solicitations of proxies for election of directors pursuant to the Act and Applicable Securities Laws (as defined below); and

(b) as to the Nominating Shareholder giving the notice, full particulars regarding any proxy, contract, agreement, arrangement or understanding pursuant to which such Nominating Shareholder has a right to vote or direct the voting of any shares of the Company and any other information relating to such Nominating Shareholder that would be required to be made in a dissident's proxy circular in connection with solicitations of proxies for election of directors pursuant to the Act and Applicable Securities Laws (as defined below).

The Company may require any proposed nominee to furnish such other information as may reasonably be required by the Company to determine the eligibility of such proposed nominee to serve as an independent director of the Company or that could be material to a reasonable shareholder's understanding of the independence, or lack thereof, of such proposed nominee.

No person shall be eligible for election as a director of the Company unless nominated in accordance with the provisions of this Section 13.9; provided, however, that nothing in this Section 13.9 shall be deemed to preclude discussion by a shareholder (as distinct from the nomination of directors) at a meeting of shareholders of any matter that is properly before such meeting pursuant to the provisions of the Act or the discretion of the Chairman. The Chairman of the meeting shall have the power and duty to determine whether a nomination was made in accordance with the procedures set forth in the foregoing provisions and, if any proposed nomination is not in compliance with such foregoing provisions, to declare that such defective nomination shall be disregarded.

For purposes of this Section 13.9:

(a) "public announcement" shall mean disclosure in a press release reported by a national news service in Canada, or in a document publicly filed by the Company under its profile on the System for Electronic Document Analysis and Retrieval at www.sedar.com; and

(b) "Applicable Securities Laws" means the applicable securities legislation of each relevant province and territory of Canada, as amended from time to time, the rules, regulations and forms made or promulgated under any such statute and the published national instruments, multilateral instruments, policies, bulletins and notices of the securities commission and similar regulatory authority of each province and territory of Canada.

Notwithstanding any other provision of this Section 13.9 and the Articles, notice given to the Secretary of the Company pursuant to this Section 13.9 may only be given by personal delivery, facsimile transmission or by email (at such email address as may be stipulated from time to time by the Secretary of the Company for purposes of this notice), and shall be deemed to have been given and made only at the time it is served by personal delivery to the Secretary of the Company at the principal executive offices of the Company, email (at the address as aforesaid) or sent by facsimile transmission (provided that receipt of confirmation of such transmission has been received); provided that if such delivery or electronic communication is made on a day which is a not a business day or later than 5:00 p.m. (Vancouver time) on a day which is a business day, then such delivery or electronic communication shall be deemed to have been made on the next following day that is a business day.

Notwithstanding the foregoing, the Board may, in its sole discretion, waive any requirement in this Section 13.9.

Exhibit 10.30

EMPLOYMENT AGREEMENT

THIS AGREEMENT made this 12 day of August, 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:

Mark Kowalski (the " **Executive** "), of
Winchester, MA

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 his hereby acknowledged.

D. The Executive has rejected other offer(s) of highly remunerative employment made in the period of April 24, 2013 to August 12, 2013, in order to accept the Employment agreement.

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

The following numbering is done with the Alt NW numbering macro. The numbered paragraphs use List styles. The shortcut keys are Alt G1, Alt G2 etc. (This numbering scheme can't be used in the same document as the Alt NG or Alt NO scheme.)

1. EMPLOYMENT

(a) The Executive will be employed by and will serve the Company as its **Senior Vice President and Chief Medical Officer** . The Executive will report directly to the Chief Executive Officer of the Company and will perform the duties and responsibilities assigned to his 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 August 12, 2013 and the Executive's employment as **Senior Vice President and Chief Medical Officer** 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 his self 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 his self exclusively 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.

(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 Agreement and Assignment of Inventions" in the form attached his hereto as Appendix A.

2. REMUNERATION AND BENEFITS

(a) The Company will pay the Executive an annual salary of **$325,000** (US 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 **35** percent of the Base Salary, if the Chief Executive Officer and the Board of Directors in their 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.

(d) The Company will facilitate the Executive's enrolment in the Company's US 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 terms and requirements of the plans themselves and/or the insurance provider. 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 four (4) weeks, 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 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 an ongoing 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 last 12 months of employment prior to termination or resignation 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, in 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 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; 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 two (2) 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 provided that they continue to pay the Executive his normal Base Salary and to the extent possible, provide benefits coverage to the end of the notice period.

(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 his 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 an amount equal to:

(A) twelve (12) months' Base Salary; and

(B) a prorated payment under the Bonus Plan in respect of the fiscal year in which the Executive's employment is terminated. This prorated payment will be based on the average of the actual percentage of the Executive's annual cash bonus for the previous three fiscal years (or such shorter period as the Executive may have been employed) and prorated for the portion of the year ending on the last day of employment

(collectively, the " **Severance Amount** "). The Company may pay the Severance Amount by way of a lump sum payment or by way of salary continuance. 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 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). 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 his primary location at the time of the change of control.;

(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 twelve (12) month's Base Salary; plus

(ii) a bonus payment equal to the average of the actual bonus payments made to the Executive from the previous three (3) calendar years preceding the date of termination of employment.

(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 by such party of their rights his 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. The Company also agrees to be bound by its commitment to reimburse the employee for his relocation expenses pursuant to the terms of the offer letter to him dated May 19, 2013, signed by Mark Murray, President and Chief Executive Officer, which for this purpose shall be part of this agreement

(d) Survival. The provisions of Sections 1(g), 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.

(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 his hereto as of the date and year first above written.

SIGNED, SEALED AND DELIVERED by **Mark Kowalski** in the presence of:	
_____	*/s/ Mark Kowalski*
Witness	**Mark Kowalski**
_____	
Address	
_____	
_____	
Occupation	

TEKMIRA PHARMACEUTICALS CORPORATION

Per: */s/ Mark J. Murray*
Mark J. Murray

APPENDIX "A"

CONFIDENTIALITY AGREEMENT
AND ASSIGNMENT OF INVENTIONS AGREEMENT

THIS AGREEMENT (this " **Agreement** ") dated for reference the **12** day of **August, 2013**

BETWEEN:

TEKMIRA PHARMACEUTICALS CORPORATION

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

AND:

Mark Kowalski (the " **Executive** "), of
Boston, MA

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; and

B. In connection with the employment of the Executive by the Company, the parties desire to establish the terms and conditions under which the Executive will (i) receive from and disclose to the Company proprietary and confidential information; (ii) agree to keep the information confidential, to protect it from disclosure and to use it only in accordance with the terms of this Agreement; and (iii) assign to the Company all rights, including any ownership interest which may arise in all inventions and intellectual property developed or disclosed by the Executive over the course of his work during his employment with the Company, as set out in this Agreement.

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the employment of the Executive by the Company and the payment by the Company to the Executive of the sum of $10.00 and other good and valuable consideration, the receipt and sufficiency of which are his eby acknowledged, the parties agree as follows:

The following numbering is done with the Alt NB numbering macro. There are 6 levels (Heading 1 to Heading 6 styles); shortcut keys Ctrl Alt 1 to Ctrl Alt 6.

1. INTERPRETATION

1.1 Definitions. In this Agreement:

(a) " **Business** " or " **Business of the Company** " means:

(i) the researching, developing, production and marketing of RNA interference drugs and delivery technology, as such business grows and evolves during this Agreement; and

(ii) any other material business carried on from time to time by the Company or any subsidiary or affiliate of the Company.

(b) " **Confidential Information** " shall mean any information relating to the Business of the Company, whether or not conceived, originated, discovered or developed in whole or in part by the Executive, that is not generally known to the public or to other persons who are not bound by obligations of confidentiality and:

(i) from which the Company derives economic value, actual or potential, from the information not being generally known; or

(ii) in respect of which the Company otherwise has a legitimate interest in maintaining secrecy;

and which, without limiting the generality of the foregoing, shall include:

(iii) all proprietary information licensed to, acquired, used or developed by the Company in its research and development activities (including but not restricted to the research and development of RNA interference drugs and delivery technology), other scientific strategies and concepts, designs, know-how, information, material, formulas, processes, research data and proprietary rights in the nature of copyrights, patents, trademarks, licenses and industrial designs;

(iv) all information relating to the Business of the Company, and to all other aspects of the Company's structure, personnel and operations, including financial, clinical, regulatory, marketing, advertising and commercial information and strategies, customer lists, compilations, agreements and contractual records and correspondence; programs, devices, concepts, inventions, designs, methods, processes, data, know-how, unique combinations of separate items that is not generally known and items provided or disclosed to the Company by third parties subject to restrictions on use or disclosure;

(v) all know-how relating to the Business of the Company including, all biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, clinical, safety, manufacturing and quality control data and information, and all applications, registrations, licenses, authorizations, approvals and correspondence submitted to regulatory authorities;

(vi) all information relating to the businesses of competitors of the Company including information relating to competitors' research and development, intellectual property, operations, financial, clinical, regulatory, marketing, advertising and commercial strategies, that is not generally known;

(vii) all information provided by the Company's agents, consultants, lawyers, contractors, licensors or licensees to the Company and relating to the Business of the Company; and

(viii) all information relating to the Executive's compensation and benefits, including his salary, vacation, stock options, rights to continuing education, perquisites, severance notice, rights on termination and all other compensation and benefits, except that he shall be entitled to disclose such information to his bankers, advisors, agents, consultants and other third parties who have a duty of confidence to him and who have a need to know such information in order to provide advice, products or services to him.

All Work Product shall be deemed to be the Company's Confidential Information.

(c) " **Effective Date** " means **August 12, 2013** , being the date that the Executive started working at the Company, as indicated in his employment agreement with the Company.

(d) " **Inventions** " shall mean any and all inventions, discoveries, developments, enhancements, improvements, concepts, formulas, designs, processes, ideas, writings and other works, whether or not reduced to practice, and whether or not protectable under patent, copyright, trade secret or similar laws.

(e) " **Work Product** " shall mean any and all Inventions and possible Inventions relating to the Business of the Company and which the Executive may make or conceive, alone or jointly with others, during his involvement in any capacity with the Company, whether during or outside his regular working hours, except those Inventions made or conceived by the Executive entirely on his own time that do not relate to the Business of the Company and do not derive from any equipment, supplies, facilities, Confidential Information or other information, gained, directly or indirectly, from or through his involvement in any capacity with the Company.

2. CONFIDENTIALITY

2.1 Basic Obligation of Confidentiality. The Executive hereby acknowledges and agrees that in the course of his involvement with the Company, the Company may disclose to him or he may otherwise have access or be exposed to Confidential Information. The Company hereby agrees to provide such access to the Executive and the Executive his hereby agrees to receive and hold all Confidential Information on the terms and conditions set out in this Agreement. Except as otherwise set out in this Agreement, the Executive will keep strictly confidential all Confidential Information and all other information belonging to the Company that he acquires, observes or is informed of, directly or indirectly, in connection with his involvement, in any capacity, with the Company.

2.2 Fiduciary Capacity. The Executive will be and act toward the Company as a fiduciary in respect of the Confidential Information.

2.3 Non-disclosure. Except with the prior written consent of the Company, the Executive will not at any time, either during or after his involvement in any capacity with the Company;

(a) use or copy any Confidential Information or recollections thereof for any purpose other than the performance of his duties for the benefit of the Company;

(b) publish or disclose any Confidential Information or recollections thereof to any person other than to employees of the Company who have a need to know such Confidential Information in the performance of their duties for the Company;

(c) permit or cause any Confidential Information to be used, copied, published, disclosed, translated or adapted except as otherwise expressly permitted by this Agreement; or

(d) permit or cause any Confidential Information to be stored off the premises of the Company, including permitting or causing such Confidential Information to be stored in electronic format on personal computers, except in accordance with written procedures of the Company, as amended from time to time in writing.

2.4 Taking Precautions. The Executive will take all reasonable precautions necessary or prudent to prevent material in his possession or control that contains or refers to Confidential Information from being discovered, used or copied by third parties.

2.5 The Company's Ownership of Confidential Information. As between the Executive and the Company, the Company shall own all right, title and interest in and to the Confidential Information, whether or not created or developed by the Executive.

2.6 Control of Confidential Information and Return of Information. All physical materials produced or prepared by the Executive containing Confidential Information, including, without limitation, records, devices, computer files, data, notes, reports, proposals, lists, correspondence, specifications, drawings, plans, materials, accounts, reports, financial statements, estimates and all other materials prepared in the course of his responsibilities to or for the benefit of the Company, together with all copies thereof (in whatever medium recorded), shall belong to the Company, and the Executive will promptly turn over to the Company's possession every original and copy of any and all such items in his possession or control upon request by the Company. If the material is such that it cannot reasonably be delivered, upon request from the Company, the Executive will provide reasonable evidence that such materials have been destroyed, purged or erased.

2.7 Purpose of Use. The Executive agrees that he will use Confidential Information only for purposes authorized or directed by the Company.

2.8 Exemptions. The obligations of confidentiality set out in this Article 2 will not apply to any of the following:

(a) information that is already known to the Executive, though not due to a prior disclosure by the Company or by a person who obtained knowledge of the information, directly or indirectly, from the Company;

(b) information disclosed to the Executive by another person who is not obliged to maintain the confidentiality of that information and who did not obtain knowledge of the information, directly or indirectly, from the Company;

(c) information that is developed by the Executive independently of Confidential Information received from the Company and such independent development can be documented by the Executive;

(d) other particular information or material which the Company expressly exempts by written instrument signed by the Company;

(e) information or material that is in the public domain through no fault of the Executive; and

(f) information required by operation of law, court order or government agency to be disclosed, provided that:

(i) in the event that the Executive is required to disclose such information or material, upon becoming aware of the obligation to disclose, the Executive will provide to the Company prompt written notice so that the Company may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement;

(ii) if the Company agrees that the disclosure is required by law, it will give the Executive written authorization to disclose the information for the required purposes only;

(iii) if the Company does not agree that the disclosure is required by law, this Agreement will continue to apply, except to the extent that a Court of competent jurisdiction orders otherwise; and

(iv) if a protective order or other remedy is not obtained or if compliance with this Agreement is waived, the Executive will furnish only that portion of the Confidential Information that is legally required and will exercise all reasonable efforts to obtain confidential treatment of such Confidential Information.

3. ASSIGNMENT OF INTELLECTUAL PROPERTY RIGHTS

3.1 Notice of Invention. The Executive agrees to promptly and fully inform the Company of all Work Product, whether or not patentable, throughout the course of his involvement, in any capacity, with the Company,. On his ceasing to be employed by the Company for any reason whatsoever, the Executive will immediately deliver up to the Company all Work Product.

3.2 Assignment of Rights. Subject only to the exceptions set out in **Exhibit I** attached to this Agreement, the Executive will assign, and does his hereby assign, to the Company or, at the option of the Company and upon notice from the Company, to the Company's designee, all of his right, title and interest in and to all Work Product and all other rights and interests of a proprietary nature in and associated with the Work Product, including all patents, patent applications filed and other registrations granted thereon. To the extent that the Executive retains or acquires legal title to any such rights and interests, the Executive his hereby declares and confirms that such legal title is and will be held by him only as trustee and agent for the Company. The Executive agrees that the Company's rights his hereunder shall attach to all Work Product, notwithstanding that it may be perfected or reduced to specific form after he has terminated his relationship with the Company. The Executive further agrees that the Company's rights his hereunder are worldwide rights and are not limited to Canada, but shall extend to every country of the world.

3.3 Moral Rights. Without limiting the foregoing, the Executive his hereby irrevocably waives any and all moral rights arising under the *Copyright Act* (Canada), as amended, or any successor legislation of similar force and effect or similar legislation in other applicable jurisdictions or at common law that he may have with respect to all Work Product, and agrees never to assert any moral rights which he may have in the Work Product, including, without limitation, the right to the integrity of the Work Product, the right to be associated with the Work Product, the right to restrain or claim damages for any distortion, mutilation or other modification or enhancement of the Work Product and the right to restrain the use or reproduction of the Work Product in any context and in connection with any product, service, cause or institution, and the Executive further confirms that the Company may use or alter any Work Product as the Company sees fits in its absolute discretion.

3.4 Goodwill. The Executive his hereby agrees that all goodwill he has established or may establish with clients, customers, suppliers, principals, shareholders, investors, collaborators, strategic partners, licensees, contacts or prospects of the Company relating to the Business of the Company (or of its partners, subsidiaries or affiliates), both before and after the Effective Date, shall, as between the Executive and the Company, be and remain the property of the Company exclusively, for the Company to use, alter, vary, adapt and exploit as the Company shall determine in its discretion.

3.5 Assistance. The Executive his hereby agrees to reasonably assist the Company, at the Company's request and expense, in:

(a) making patent applications for all Work Product, including instructions to lawyers and/or patent agents as to the characteristics of the Work Product in sufficient detail to enable the preparation of a suitable patent specification, to execute all formal documentation incidental to an application for letters patent and to execute assignment documents in favour of the Company for such applications;

(b) making applications for all other forms of intellectual property registration relating to all Work Product;

(c) prosecuting and maintaining the patent applications and other intellectual property relating to all Work Product; and

(d) registering, maintaining and enforcing the patents and other intellectual property registrations relating to all Work Product.

If the Company is unable for any reason to secure the Executive's signature with respect to any Work Product including, without limitation, to apply for or to pursue any application for any patents or copyright registrations covering such Work Product, then the Executive his hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as his agent and attorney-in-fact, to act for and in his behalf and stead to execute and file any papers, oaths and to do all other lawfully permitted acts with respect to such Work Product with the same legal force and effect as if executed by him.

3.6 Assistance with Proceedings. The Executive further agrees to reasonably assist the Company, at the Company's request and expense, in connection with any defence to an allegation of infringement of another person's intellectual property rights, claim of invalidity of another person's intellectual property rights, opposition to, or intervention regarding, an application for letters patent, copyright or trademark or other proceedings relating to intellectual property or applications for registration thereof.

3.7 Commercialization. The Executive understands that the decision whether or not to commercialize or market any Work Product is within the Company's sole discretion and for the Company's sole benefit and that no royalty or other consideration will be due or payable to him as a result of the Company's efforts to commercialize or market any such Work Product.

3.8 Prior Inventions. In order to have them excluded from this Agreement, the Executive has set forth on **Exhibit I** attached to this Agreement a complete list of all Inventions for which a patent application has not yet been filed that he has, alone or jointly with others, conceived, developed or reduced to practice prior to the execution of this Agreement to which he has any right, title or interest, and which relate to the Business of the Company. If such list is blank or no such list is attached, the Executive represents and warrants that there are no such prior Inventions.

4. GENERAL

4.1 Term. Subject to Section 4.10, the term of this Agreement is from the Effective Date and terminates on the date that the Executive is no longer working at or for the Company in any capacity.

4.2 No Conflicting Obligations. The Executive his hereby represents and warrants that he has no agreements with or obligations to any other person with respect to the matters covered by this Agreement or concerning the Confidential Information that are in conflict with anything in this Agreement, except as disclosed in **Exhibit I** attached to this Agreement.

4.3 Publicity. The Executive shall not, without the prior written consent of the Company, make or give any public announcements, press releases or statements to the public or the press regarding any Work Product or any Confidential Information.

4.4 Further Assurances. The parties will execute and deliver to each other such further instruments and assurances and do such further acts as may be required to give effect to this Agreement.

4.5 Notices. All notices and other communications that are required or permitted by this Agreement must be in writing and shall be hand delivered or sent by express delivery service or certified or registered mail, postage prepaid, or by facsimile transmission (with receipt confirmed in writing) to the parties at the addresses on page 1 of this Agreement. Any such notice shall be deemed to have been received on the earlier of the date actually received or the date five (5) days after the same was posted or sent. Either party may change its address or its facsimile number by giving the other party written notice, delivered in accordance with this section.

4.6 Equitable Remedies. The Executive understands and acknowledges that if he breaches any of his obligations under this Agreement, that breach may give rise to irreparable injury to the Company for which damages are an inadequate remedy. In the event of any such breach by the Executive, in addition to all other remedies available to the Company at law or in equity, the Company will be entitled as a matter of right to apply to a court of competent jurisdiction for such relief by way of restraining order, injunction, decree or otherwise, as may be appropriate to ensure compliance with the provisions of this Agreement.

4.7 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 his hereunder or of the right to then or subsequently declare a default.

4.8 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.

4.9 Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter his hereof 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.

4.10 Survival. Notwithstanding the expiration or early termination of this Agreement, the provisions of Article 1, Article 2 (including the obligations of confidentiality and to return Confidential Information, which shall endure, with respect to each item of Confidential Information, for so long as those items fall within the definition of Confidential Information), Sections 3.2, 3.3, 3.4, 3.5 and 3.6 and Article 4 shall survive any expiration or early termination of this Agreement.

4.11 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.

4.12 Governing Law. This Agreement will be governed by and construed according to the laws of the Province of British Columbia.

4.13 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.

4.14 Independent Legal Advice. The Executive agrees that he has obtained or has had an opportunity to obtain independent legal advice in connection with this Agreement, and further acknowledge that he has read, understands, and agrees to be bound by all of the terms and conditions contained his herein.

IN WITNESS WHEREOF this Agreement has been executed by the parties his hereto as of the date and year first above written.

SIGNED, SEALED AND DELIVERED by **Mark Kowalski** in the presence of:	)	
	)	*<u>/s/ Mark Kowalski</u>*
Witness Signature	)	**Mark Kowalski**
Witness Name	)	
Witness Address	)	
Witness Occupation	)	

TEKMIRA PHARMACEUTICALS CORPORATION

Per: *<u>/s/ Mark J. Murray</u>*
Mark J. Murray

EXHIBIT I

to Confidentiality Agreement and Assignment of Inventions

EXCLUSIONS FROM WORK PRODUCT

None.

Exhibit 10.31

EMPLOYMENT AGREEMENT

THIS AGREEMENT made this 7 th day of October, 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:

BRUCE COUSINS (the " **Executive** "), of Victoria, British Columbia

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:

The following numbering is done with the Alt NW numbering macro. The numbered paragraphs use List styles. The shortcut keys are Alt G1, Alt G2 etc. (This numbering scheme can't be used in the same document as the Alt NG or Alt NO scheme.)

1. EMPLOYMENT

(a) The Executive will be employed by and will serve the Company as its **Executive Vice President and Chief Financial Officer** . 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 October 7, 2013 and the Executive's employment as **Executive Vice President and Chief Financial Officer** 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 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 himself exclusively 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.

(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 $305,000 (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 terms and requirements of the plans themselves and/or the insurance provider. 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 five (5) weeks, 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 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, in 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 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; 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 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 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) month's Base Salary, in the event of termination on or before October 7, 2015, or

(B) eighteen (18) month's Base Salary, in the event of termination after October 7, 2015; 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 inclusive of any entitlement to minimum standard severance under the *B.C. 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 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 1(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.

(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 **Bruce Cousins** in the presence of:	
_____	*/s/ Bruce Cousins*
Witness	**BRUCE COUSINS**
_____	
Address	
_____	
_____	
Occupation	

TEKMIRA PHARMACEUTICALS CORPORATION

Per: */s/ Mark J. Murray*
Mark J. Murray

APPENDIX "A"

CONFIDENTIALITY
AND ASSIGNMENT OF INVENTIONS AGREEMENT

THIS AGREEMENT (this " **Agreement** ") dated for reference the 7 th day of October, 2013.

BETWEEN:

TEKMIRA PHARMACEUTICALS CORPORATION

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

AND:

BRUCE COUSINS (the " **Executive** "), of Victoria, British Columbia

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; and

B. In connection with the employment of the Executive by the Company, the parties desire to establish the terms and conditions under which the Executive will (i) receive from and disclose to the Company proprietary and confidential information; (ii) agree to keep the information confidential, to protect it from disclosure and to use it only in accordance with the terms of this Agreement; and (iii) assign to the Company all rights, including any ownership interest which may arise in all inventions and intellectual property developed or disclosed by the Executive over the course of his work during his employment with the Company, as set out in this Agreement.

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the employment of the Executive by the Company and the payment by the Company to the Executive of the sum of $10.00 and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

The following numbering is done with the Alt NB numbering macro. There are 6 levels (Heading 1 to Heading 6 styles); shortcut keys Ctrl Alt 1 to Ctrl Alt 6.

1. INTERPRETATION

1.1 Definitions. In this Agreement:

(a) " **Business** " or " **Business of the Company** " means:

(i) the researching, developing, production and marketing of RNA interference drugs and delivery technology, as such business grows and evolves during this Agreement; and

(ii) any other material business carried on from time to time by the Company or any subsidiary or affiliate of the Company.

(b) " **Confidential Information** " shall mean any information relating to the Business of the Company, whether or not conceived, originated, discovered or developed in whole or in part by the Executive, that is not generally known to the public or to other persons who are not bound by obligations of confidentiality and:

(i) from which the Company derives economic value, actual or potential, from the information not being generally known; or

(ii) in respect of which the Company otherwise has a legitimate interest in maintaining secrecy;

and which, without limiting the generality of the foregoing, shall include:

(iii) all proprietary information licensed to, acquired, used or developed by the Company in its research and development activities (including but not restricted to the research and development of RNA interference drugs and delivery technology), other scientific strategies and concepts, designs, know-how, information, material, formulas, processes, research data and proprietary rights in the nature of copyrights, patents, trademarks, licenses and industrial designs;

(iv) all information relating to the Business of the Company, and to all other aspects of the Company's structure, personnel and operations, including financial, clinical, regulatory, marketing, advertising and commercial information and strategies, customer lists, compilations, agreements and contractual records and correspondence; programs, devices, concepts, inventions, designs, methods, processes, data, know-how, unique combinations of separate items that is not generally known and items provided or disclosed to the Company by third parties subject to restrictions on use or disclosure;

(v) all know-how relating to the Business of the Company including, all biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, clinical, safety, manufacturing and quality control data and information, and all applications, registrations, licenses, authorizations, approvals and correspondence submitted to regulatory authorities;

(vi) all information relating to the businesses of competitors of the Company including information relating to competitors' research and development, intellectual property, operations, financial, clinical, regulatory, marketing, advertising and commercial strategies, that is not generally known;

(vii) all information provided by the Company's agents, consultants, lawyers, contractors, licensors or licensees to the Company and relating to the Business of the Company; and

(viii) all information relating to the Executive's compensation and benefits, including his salary, vacation, stock options, rights to continuing education, perquisites, severance notice, rights on termination and all other compensation and benefits, except that he shall be entitled to disclose such information to his bankers, advisors, agents, consultants and other third parties who have a duty of confidence to him and who have a need to know such information in order to provide advice, products or services to him.

All Work Product shall be deemed to be the Company's Confidential Information.

(c) " **Effective Date** " means **October 7, 2013** , being the date that the Executive started working at the Company, as indicated in his employment agreement with the Company.

(d) " **Inventions** " shall mean any and all inventions, discoveries, developments, enhancements, improvements, concepts, formulas, designs, processes, ideas, writings and other works, whether or not reduced to practice, and whether or not protectable under patent, copyright, trade secret or similar laws.

(e) " **Work Product** " shall mean any and all Inventions and possible Inventions relating to the Business of the Company and which the Executive may make or conceive, alone or jointly with others, during his involvement in any capacity with the Company, whether during or outside his regular working hours, except those Inventions made or conceived by the Executive entirely on his own time that do not relate to the Business of the Company and do not derive from any equipment, supplies, facilities, Confidential Information or other information, gained, directly or indirectly, from or through his involvement in any capacity with the Company.

2. CONFIDENTIALITY

2.1 Basic Obligation of Confidentiality. The Executive hereby acknowledges and agrees that in the course of his involvement with the Company, the Company may disclose to him or he may otherwise have access or be exposed to Confidential Information. The Company hereby agrees to provide such access to the Executive and the Executive hereby agrees to receive and hold all Confidential Information on the terms and conditions set out in this Agreement. Except as otherwise set out in this Agreement, the Executive will keep strictly confidential all Confidential Information and all other information belonging to the Company that he acquires, observes or is informed of, directly or indirectly, in connection with his involvement, in any capacity, with the Company.

2.2 Fiduciary Capacity. The Executive will be and act toward the Company as a fiduciary in respect of the Confidential Information.

2.3 Non-disclosure. Except with the prior written consent of the Company, the Executive will not at any time, either during or after his involvement in any capacity with the Company;

(a) use or copy any Confidential Information or recollections thereof for any purpose other than the performance of his duties for the benefit of the Company;

(b) publish or disclose any Confidential Information or recollections thereof to any person other than to employees of the Company who have a need to know such Confidential Information in the performance of their duties for the Company;

(c) permit or cause any Confidential Information to be used, copied, published, disclosed, translated or adapted except as otherwise expressly permitted by this Agreement; or

(d) permit or cause any Confidential Information to be stored off the premises of the Company, including permitting or causing such Confidential Information to be stored in electronic format on personal computers, except in accordance with written procedures of the Company, as amended from time to time in writing.

2.4 Taking Precautions. The Executive will take all reasonable precautions necessary or prudent to prevent material in his possession or control that contains or refers to Confidential Information from being discovered, used or copied by third parties.

2.5 The Company's Ownership of Confidential Information. As between the Executive and the Company, the Company shall own all right, title and interest in and to the Confidential Information, whether or not created or developed by the Executive.

2.6 Control of Confidential Information and Return of Information. All physical materials produced or prepared by the Executive containing Confidential Information, including, without limitation, records, devices, computer files, data, notes, reports, proposals, lists, correspondence, specifications, drawings, plans, materials, accounts, reports, financial statements, estimates and all other materials prepared in the course of his responsibilities to or for the benefit of the Company, together with all copies thereof (in whatever medium recorded), shall belong to the Company, and the Executive will promptly turn over to the Company's possession every original and copy of any and all such items in his possession or control upon request by the Company. If the material is such that it cannot reasonably be delivered, upon request from the Company, the Executive will provide reasonable evidence that such materials have been destroyed, purged or erased.

2.7 Purpose of Use. The Executive agrees that he will use Confidential Information only for purposes authorized or directed by the Company.

2.8 Exemptions. The obligations of confidentiality set out in this Article 2 will not apply to any of the following:

(a) information that is already known to the Executive, though not due to a prior disclosure by the Company or by a person who obtained knowledge of the information, directly or indirectly, from the Company;

(b) information disclosed to the Executive by another person who is not obliged to maintain the confidentiality of that information and who did not obtain knowledge of the information, directly or indirectly, from the Company;

(c) information that is developed by the Executive independently of Confidential Information received from the Company and such independent development can be documented by the Executive;

(d) other particular information or material which the Company expressly exempts by written instrument signed by the Company;

(e) information or material that is in the public domain through no fault of the Executive; and

(f) information required by operation of law, court order or government agency to be disclosed, provided that:

(i) in the event that the Executive is required to disclose such information or material, upon becoming aware of the obligation to disclose, the Executive will provide to the Company prompt written notice so that the Company may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement;

(ii) if the Company agrees that the disclosure is required by law, it will give the Executive written authorization to disclose the information for the required purposes only;

(iii) if the Company does not agree that the disclosure is required by law, this Agreement will continue to apply, except to the extent that a Court of competent jurisdiction orders otherwise; and

(iv) if a protective order or other remedy is not obtained or if compliance with this Agreement is waived, the Executive will furnish only that portion of the Confidential Information that is legally required and will exercise all reasonable efforts to obtain confidential treatment of such Confidential Information.

3. ASSIGNMENT OF INTELLECTUAL PROPERTY RIGHTS

3.1 Notice of Invention. The Executive agrees to promptly and fully inform the Company of all Work Product, whether or not patentable, throughout the course of his involvement, in any capacity, with the Company, whether or not developed before or after execution of this Agreement. On his ceasing to be employed by the Company for any reason whatsoever, the Executive will immediately deliver up to the Company all Work Product.

3.2 Assignment of Rights. Subject only to the exceptions set out in **Exhibit I** attached to this Agreement, the Executive will assign, and does hereby assign, to the Company or, at the option of the Company and upon notice from the Company, to the Company's designee, all of his right, title and interest in and to all Work Product and all other rights and interests of a proprietary nature in and associated with the Work Product, including all patents, patent applications filed and other registrations granted thereon. To the extent that the Executive retains or acquires legal title to any such rights and interests, the Executive hereby declares and confirms that such legal title is and will be held by him only as trustee and agent for the Company. The Executive agrees that the Company's rights hereunder shall attach to all Work Product, notwithstanding that it may be perfected or reduced to specific form after he has terminated his relationship with the Company. The Executive further agrees that the Company's rights hereunder are worldwide rights and are not limited to Canada, but shall extend to every country of the world.

3.3 Moral Rights. Without limiting the foregoing, the Executive hereby irrevocably waives any and all moral rights arising under the *Copyright Act* (Canada), as amended, or any successor legislation of similar force and effect or similar legislation in other applicable jurisdictions or at common law that he may have with respect to all Work Product, and agrees never to assert any moral rights which he may have in the Work Product, including, without limitation, the right to the integrity of the Work Product, the right to be associated with the Work Product, the right to restrain or claim damages for any distortion, mutilation or other modification or enhancement of the Work Product and the right to restrain the use or reproduction of the Work Product in any context and in connection with any product, service, cause or institution, and the Executive further confirms that the Company may use or alter any Work Product as the Company sees fits in its absolute discretion.

3.4 Goodwill. The Executive hereby agrees that all goodwill he has established or may establish with clients, customers, suppliers, principals, shareholders, investors, collaborators, strategic partners, licensees, contacts or prospects of the Company relating to the Business of the Company (or of its partners, subsidiaries or affiliates), both before and after the Effective Date, shall, as between the Executive and the Company, be and remain the property of the Company exclusively, for the Company to use, alter, vary, adapt and exploit as the Company shall determine in its discretion.

3.5 Assistance. The Executive hereby agrees to reasonably assist the Company, at the Company's request and expense, in:

(a) making patent applications for all Work Product, including instructions to lawyers and/or patent agents as to the characteristics of the Work Product in sufficient detail to enable the preparation of a suitable patent specification, to execute all formal documentation incidental to an application for letters patent and to execute assignment documents in favour of the Company for such applications;

(b) making applications for all other forms of intellectual property registration relating to all Work Product;

(c) prosecuting and maintaining the patent applications and other intellectual property relating to all Work Product; and

(d) registering, maintaining and enforcing the patents and other intellectual property registrations relating to all Work Product.

If the Company is unable for any reason to secure the Executive's signature with respect to any Work Product including, without limitation, to apply for or to pursue any application for any patents or copyright registrations covering such Work Product, then the Executive hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as his agent and attorney-in-fact, to act for and in his behalf and stead to execute and file any papers, oaths and to do all other lawfully permitted acts with respect to such Work Product with the same legal force and effect as if executed by him.

3.6 Assistance with Proceedings. The Executive further agrees to reasonably assist the Company, at the Company's request and expense, in connection with any defence to an allegation of infringement of another person's intellectual property rights, claim of invalidity of another person's intellectual property rights, opposition to, or intervention regarding, an application for letters patent, copyright or trademark or other proceedings relating to intellectual property or applications for registration thereof.

3.7 Commercialization. The Executive understands that the decision whether or not to commercialize or market any Work Product is within the Company's sole discretion and for the Company's sole benefit and that no royalty or other consideration will be due or payable to him as a result of the Company's efforts to commercialize or market any such Work Product.

3.8 Prior Inventions. In order to have them excluded from this Agreement, the Executive has set forth on **Exhibit I** attached to this Agreement a complete list of all Inventions for which a patent application has not yet been filed that he has, alone or jointly with others, conceived, developed or reduced to practice prior to the execution of this Agreement to which he has any right, title or interest, and which relate to the Business of the Company. If such list is blank or no such list is attached, the Executive represents and warrants that there are no such prior Inventions.

4. GENERAL

4.1 Term. Subject to Section 4.10, the term of this Agreement is from the Effective Date and terminates on the date that the Executive is no longer working at or for the Company in any capacity.

4.2 No Conflicting Obligations. The Executive hereby represents and warrants that he has no agreements with or obligations to any other person with respect to the matters covered by this Agreement or concerning the Confidential Information that are in conflict with anything in this Agreement, except as disclosed in **Exhibit I** attached to this Agreement.

4.3 Publicity. The Executive shall not, without the prior written consent of the Company, make or give any public announcements, press releases or statements to the public or the press regarding any Work Product or any Confidential Information.

4.4 Further Assurances. The parties will execute and deliver to each other such further instruments and assurances and do such further acts as may be required to give effect to this Agreement.

4.5 Notices. All notices and other communications that are required or permitted by this Agreement must be in writing and shall be hand delivered or sent by express delivery service or certified or registered mail, postage prepaid, or by facsimile transmission (with receipt confirmed in writing) to the parties at the addresses on page 1 of this Agreement. Any such notice shall be deemed to have been received on the earlier of the date actually received or the date five (5) days after the same was posted or sent. Either party may change its address or its facsimile number by giving the other party written notice, delivered in accordance with this section.

4.6 Equitable Remedies. The Executive understands and acknowledges that if he breaches any of his obligations under this Agreement, that breach may give rise to irreparable injury to the Company for which damages are an inadequate remedy. In the event of any such breach by the Executive, in addition to all other remedies available to the Company at law or in equity, the Company will be entitled as a matter of right to apply to a court of competent jurisdiction for such relief by way of restraining order, injunction, decree or otherwise, as may be appropriate to ensure compliance with the provisions of this Agreement.

4.7 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.

4.8 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.

4.9 Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof 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.

4.10 Survival. Notwithstanding the expiration or early termination of this Agreement, the provisions of Article 1, Article 2 (including the obligations of confidentiality and to return Confidential Information, which shall endure, with respect to each item of Confidential Information, for so long as those items fall within the definition of Confidential Information), Sections 3.2, 3.3, 3.4, 3.5 and 3.6 and Article 4 shall survive any expiration or early termination of this Agreement.

4.11 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.

4.12 Governing Law. This Agreement will be governed by and construed according to the laws of the Province of British Columbia.

4.13 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.

4.14 Independent Legal Advice. The Executive agrees that he has obtained or has had an opportunity to obtain independent legal advice in connection with this Agreement, and further acknowledge that he has read, understands, and agrees to be bound by all of the terms and conditions contained herein.

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 Bruce Cousins in the presence of:	
_____	*/s/ Bruce Cousins*
Witness Signature	**BRUCE COUSINS**
_____	
Witness Name	
_____	
Witness Address	
_____	
_____	
Witness Occupation	

TEKMIRA PHARMACEUTICALS CORPORATION

Per: */s/ Mark J. Murray*
Mark J. Murray

EXHIBIT I

to Confidentiality and Assignment of Inventions Agreement

EXCLUSIONS FROM WORK PRODUCT

None.

Exhibit 10.32

EXECUTION COPY

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.

PROTIVA-MONSANTO SERVICES AGREEMENT

THIS PROTIVA-MONSANTO SERVICES AGREEMENT (this "**Agreement**"), effective this January 12, 2014 (hereinafter "**Effective Date**"), is by and among **Protiva Biotherapeutics, Inc.**, a British Columbia corporation and a wholly-owned subsidiary of Tekmira Pharmaceuticals Corporation, a British Columbia corporation, ("**Protiva**"), **Protiva Agricultural Development Company Inc.** ("**PadCo**") , a British Columbia corporation and a wholly-owned subsidiary of Protiva (the "**Company**"), and **Monsanto Company**, a Delaware corporation ("**Monsanto**"). Protiva, the Company and Monsanto are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**".

RECITALS

WHEREAS, Protiva desires that Monsanto provide Services relating to the evaluation of Compounds and/or Formulations according to the Research Plan, and Monsanto is willing to provide such Services to Protiva in exchange for payment for such Services from Protiva (each as defined below); and

WHEREAS, contemporaneously with the execution of this Agreement (i) Protiva is granting Monsanto Canada, Inc., a Canadian corporation ("**Monsanto Canada**"), an exclusive option, pursuant to the terms of, and subject to the conditions in, the Option Agreement by and among Monsanto Canada, Protiva and the Company dated as of the Effective Date (as the same may be amended, restated, or otherwise modified from time to time, the "**Option Agreement**") and (ii) the Company, Tekmira Pharmaceuticals Corporation, and Protiva are entering into a license and services agreement (as the same may be amended, restated, or otherwise modified from time to time, the "**PadCo-Protiva License and Services Agreement**"), whereby, among other things, Protiva agrees to perform certain services for the Company, including the design and synthesis of Compounds and/or Formulations for the Company, and Protiva and Tekmira grant the Company an irrevocable, exclusive, perpetual, transferrable, fully paid-up license, with rights to sublicense, to use the Protiva Intellectual Property for all purposes in the Agricultural Field, including to develop and commercialize products in the Agricultural Field (each as defined below).

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the Parties agree as follows:

ARTICLE 1
DEFINITIONS

1.1 "**Affiliate**" shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.2 "**Agricultural Field**" shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.3 " **Call Option** " shall have the meaning set forth in the Option Agreement.

1.4 " **Competitor of Protiva** " shall mean any entity listed on Exhibit A or any Affiliate thereof.

1.5 " **Compound** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.6 " **Confidential Information** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.7 " **Disclosing Party** " shall have the meaning set forth in the Option Agreement.

1.8 " **Failure to Exercise** " shall have the meaning set forth in the Option Agreement.

1.9 " **Formulation** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.10 " **Indemnified Party** " shall have the meaning set forth in Section 6.3 .

1.11 " **Indemnifying Party** " shall have the meaning set forth in Section 6.3 .

1.12 " **Identified Infringement** " shall have the meaning set forth in Section 4.8 (b) .

1.13 " **Independent IP Counsel** " has the meaning set forth in the Option Agreement.

1.14 " **Insolvent Party** " shall have the meaning set forth in Section 8.4.

1.15 " **JRC Joint IP Infringement Matter** " shall have the meaning set forth in Section 4.9 .

1.16 " **Joint Project Intellectual Property** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.17 " **Joint Project Inventions** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.18 " **Joint Project Patent Infringement Matter** " shall have the meaning set forth in Section 4.8 (b) .

1.19 " **JRC** " shall have the meaning set forth in the Option Agreement.

1.20 " **Losses** " shall have the meaning set forth in Section 6.1 .

1.21 " **Monsanto Improvements** " shall mean an invention that is (i) Monsanto Project Intellectual Property, (ii) claimed in an issued patent owned by Monsanto and having a priority date that is during the term of this Agreement, and (iii) the practice of which, if practiced at the time of said priority date, would be covered by at least one Valid Claim of a Patent that is a Protiva Background Patent or a Protiva Project Patent.

1.22 " **Monsanto Indemnitees** " shall have the meaning set forth in Section 6.2 .

1.23 " **Monsanto Materials** " shall have the meaning set forth in Section 2.5 .

1.24 " **Monsanto Personnel** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.25 " **Monsanto Project Intellectual Property** " means (i) all of the following that is not Joint Project Intellectual Property: (a) all inventions that are conceived by Monsanto Personnel in the conduct of activities under the Research Program; (b) all Know-How that is developed, created, made, discovered, or produced by Monsanto Personnel in the conduct of activities under the Research Program; and (c) all tangible works of expression that are authored by Monsanto Personnel in the conduct of activities under the Research Program; and (ii) all Monsanto Research Data.

1.26 " **Monsanto Research Data** " shall have the meaning set forth in Section 2.2 .

1.27 " **MTT** " shall have the meaning set forth in Section 2.4 .

1.28 " **Option Agreement** " shall have the meaning set forth above in the Recitals.

1.29 " **Option Phase B Initiation Payment** " shall have the meaning set forth in the Option Agreement.

1.30 " **Option Phase C Initiation Payment** " shall have the meaning set forth in the Option Agreement.

1.31 " **PadCo-Protiva License and Services Agreement** " shall have the meaning set forth above in the Recitals.

1.32 " **Patent** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.33 " **Person** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.34 " **Phase A** " shall have the meaning set forth in the Option Agreement.

1.35 " **Phase B** " shall have the meaning set forth in the Option Agreement.

1.36 " **Phase C** " shall have the meaning set forth in the Option Agreement.

1.37 " **Protiva Background Patents** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.38 " **Protiva Field** " shall mean the field of human therapeutic, human prophylactic, and human diagnostic applications.

1.39 " **Protiva Indemnitees** " shall have the meaning set forth in Section 6.1 .

1.40 " **Protiva Intellectual Property** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.41 " **Protiva Personnel** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.42 " **Protiva Project Patents** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.43 " **Receiving Party** " shall have the meaning set forth in the Option Agreement.

1.44 " **Research Plan** " shall have the meaning set forth in the Option Agreement.

1.45 " **S e r vi ce s** " shall mean the evaluation services and other work described in the Research Plan as services to be provided by Monsanto and/or its Affiliate.

1.46 " **Solvent Party** " shall have the meaning set forth in Section 8.4.

1.47 " **Tekmira** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.48 " **T e r m** " shall have the meaning set forth in Section 8.1 .

1.49 " **Territory** " shall mean worldwide.

1.50 " **Third Party(ies)** " shall mean any Person other than Monsanto, Monsanto Canada, the Company or Protiva and their respective Affiliates.

1.51 " **Third Party Claim** " shall have the meaning set forth in Section 6.3 .

1.52 " **Trade Secret Disclosure Provisions** " means the provisions set out in Section 12(l) of the Option Agreement that govern disclosure and use of Confidential Information of Protiva relating to the chemical compositions of Compounds and Formulations.

1.53 " **Transaction Agreements** " shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

1.54 **" Valid Claim "** shall have the meaning set forth in the PadCo-Protiva License and Services Agreement.

ARTICLE 2
PERFORMANCE OF SERVICES

2.1 **General** . During the Term, Monsanto shall use reasonable best efforts to perform the Services; provided , however , that Monsanto's obligation to perform the Services shall be subject to Protiva's compliance with its obligations as set forth in the Research Plan. During the Term, Protiva hereby grants to Monsanto a fully-paid, royalty-free, worldwide, non-exclusive license to the Protiva Intellectual Property solely for the purposes of performing the Services in accordance with the terms and conditions of this Agreement. This right and license shall terminate immediately, without notice, upon termination of Monsanto's obligation to provide the Services herein. Monsanto shall have the right, upon written notice to Protiva, to have the Services, or any part of such Services, conducted by a Third Party; provided that any such Third Party (i) is not a Competitor of Protiva (unless Protiva has consented to Monsanto's use of such Competitor of Protiva to provide such Services or portion thereof), and (ii) shall be under confidentiality and intellectual property assignment provisions no less stringent than those set forth in ARTICLE 5 . Performance of the Services shall be under the supervision of Monsanto Personnel selected by Monsanto, subject to change from time-to-time in Monsanto's sole discretion.

2.2 **Data and Reports** . Subject to the confidentiality provisions of this Agreement and the Option Agreement, Monsanto shall provide to Protiva and the JRC (i) a summary report of all Services performed by Monsanto and data generated in the performance of such Services on a quarterly basis or as otherwise agreed upon by the JRC; (ii) as requested by the JRC, the actual raw data generated by or on behalf of Monsanto in performance of the Services; and (iii) such other reports, data, and information as may be required pursuant to the Research Plan or requested by the JRC ((i), (ii), and (iii) collectively, the " **Monsanto Research Data** "). Monsanto hereby grants Protiva the right and license to use Monsanto Research Data solely for the purposes of providing services to Company under the PadCo-Protiva License and Services Agreement, such right and license to terminate immediately, without notice, upon the termination or expiration of the PadCo-Protiva License and Services Agreement or earlier termination or expiration of Protiva's obligation to provide services to the Company under the PadCo-Protiva License and Services Agreement.

2.3 **Data Security Requirements** . During the Term and any period following the Term in which Protiva's license under Section 4.2 survives, Protiva shall abide by the data security requirements set forth on Exhibit B hereto.

2.4 **Operation** . As more specifically set forth in and in accordance with the Research Plan, Protiva shall provide Compounds and Formulations to Monsanto for Monsanto's use in connection with the performance of Services under this Agreement. Any such Compounds and Formulations to be provided by Protiva to Monsanto shall be set forth on a Materials Transfer Transmittal (" **MTT** ") in the form attached as Exhibit C hereto. Except as required by the Research Plan or permitted pursuant to the PadCo-Protiva License and Services Agreement, Monsanto will not modify, isolate, analyze, sequence, characterize, replicate, or derivatize any such Compounds and/or Formulations, without the prior written approval of Protiva. All such Compounds and Formulations are understood to be experimental in nature and potentially hazardous. Monsanto will exercise due care to ensure that all such Compounds and Formulations are handled by trained laboratory personnel only in compliance with all applicable laws and regulations. Protiva shall not provide to Monsanto or the JRC the chemical compositions of any Compounds and/or Formulations provided to Monsanto under this Agreement, unless Monsanto specifically requests disclosure of such chemical compositions, in which event such disclosure shall be made subject to the Trade Secret Disclosure Provisions. In the event the Term expires upon a Failure to Exercise, any Compounds and/or Formulations that remain in Monsanto's possession upon such expiration of the Term shall be promptly destroyed or returned to Protiva, in Protiva's sole discretion. Notice of destruction shall be provided to Protiva, if applicable.

2.5 **Monsanto Materials** . As more specifically set forth in and in accordance with the Research Plan, Monsanto shall provide nucleic acid molecules to Protiva for its use in connection with providing services to Company under the PadCo-Protiva License and Services Agreement, and Monsanto hereby grants Protiva the right and license to use the nucleic acid molecules provided by Monsanto to Protiva under this Agreement (the " **Monsanto Materials** ") solely for the purposes of providing such services, such right and license to terminate immediately, without notice, upon the termination or expiration of the PadCo-Protiva License and Services Agreement or earlier termination or expiration of Protiva's obligation to provide services to the Company under the PadCo-Protiva License and Services Agreement. Any Monsanto Materials to be provided by Monsanto to Protiva shall be set forth on a MTT in the form attached as Exhibit C hereto. Except as required by the Research Plan, Protiva will not modify, isolate, analyze, sequence, characterize, replicate, or derivatize any Monsanto Materials, without the prior written approval of Monsanto. All Monsanto Materials are understood to be experimental in nature and potentially hazardous. Protiva will exercise due care to ensure that all Monsanto Materials are handled by trained laboratory personnel only in compliance with all applicable laws and regulations. All Monsanto Materials that remain in Protiva's possession upon the termination or expiration of the PadCo-Protiva License and Services Agreement or earlier termination or expiration of Protiva's obligation to provide services to the Company under the PadCo-Protiva License and Services Agreement shall be promptly destroyed or returned to Monsanto, in Monsanto's sole discretion. Notice of destruction shall be provided to Monsanto, if applicable.

2.6 **JRC Coordination** . The Parties' activities under this Agreement, including without limitation the performance of Services by Monsanto, shall be coordinated by the JRC established pursuant to the Option Agreement in accordance with the terms and conditions thereof. Such coordination shall include a quarterly review by the JRC of research deliverables performed by Monsanto for Protiva and relevant supporting documentation.

ARTICLE 3
COMPENSATION

3.1 **Payments for Services** .

(a) Protiva will make the following payments to Monsanto:

(i) **[***]** in research funding during Phase A of the Services as described in the Research Plan, such amount to be paid by Protiva in four equal installments, with the first such installment due within fifteen (15) days of the Effective Date, and the remaining three installments payable within fifteen (15) days of the end of the third, sixth, and ninth full month, respectively, immediately following the Effective Date;

(i) **[***]** in research funding during Phase B as described in the Research Plan, if Phase B is initiated pursuant to Section 2(e)(iii) of the Option Agreement, such amount to be paid by Protiva in four equal installments, with the first such installment due within fifteen (15) days of Monsanto's payment to Protiva of the Option Phase B Initiation Payment, and the remaining three installments payable within fifteen (15) days of the end of the third, sixth, and ninth full month, respectively, immediately following the date of such Option Phase B Initiation Payment; and

(iii) **[***]** in research funding during Phase C as described in the Research Plan, if Phase C is initiated pursuant to Section 2(e)(iv) of the Option Agreement, such amount to be paid by Protiva in four equal installments, with the first such installment due within fifteen (15) days of Monsanto's payment to Protiva of the Option Phase C Initiation Payment, and the remaining three installments payable within fifteen (15) days of the end of the third, sixth, and ninth full month, respectively, immediately following the date of such Option Phase C Initiation Payment.

(b) Monsanto may issue invoices to Protiva for amounts due for research funding under this Agreement; provided , however , that Monsanto's failure to issue any such invoice shall not alter or eliminate Protiva's payment obligations under this Agreement. Initiation of Phase B or Phase C, as the case may be, prior to payment in full of amounts due for research services performed in connection with the preceding phase shall not alter or eliminate the amount or timing of Protiva's payment obligations with respect to such preceding phase.

3.2 **Past Due Amounts** . Any payments due from Protiva to Monsanto under this Agreement that are not paid by the date such payments are due shall bear interest at **[***]** per month from the date such unpaid payments are due until paid in full. The foregoing interest shall be in addition to any other remedies that Monsanto may have pursuant to this Agreement.

ARTICLE 4
INTELLECTUAL PROPERTY

4.1 **Ownership** . Subject to the license to Monsanto Improvements granted to Protiva in Section 4.2 below, Monsanto is and shall remain the sole owner of all right, title, and interest in and to all Monsanto Project Intellectual Property. Subject to the license granted to Protiva in Section 4.2 below, Monsanto shall solely own all right, title, and interest in and to all Joint Project Intellectual Property. Protiva hereby assigns, and to the extent it cannot presently assign, shall assign, to Monsanto all of its right, title, and interest in and to any Joint Project Intellectual Property and shall require all Protiva Personnel to so assign to Monsanto all of their respective right, title, and interest in and to any Joint Project Intellectual Property. Protiva shall, and shall cause all Protiva Personnel to, cooperate with Monsanto and take all additional actions and execute such agreements, instruments, and documents as may be reasonably required to perfect Monsanto's right, title, and interest in and to Joint Project Intellectual Property. Protiva shall also include provisions in its relevant agreements with Protiva Personnel to the extent reasonably necessary to effect the intent of this Section 4.1 .

4.2 **License Grant** . Subject to the terms and conditions of this Agreement, Monsanto agrees to and hereby does grant to Protiva:

(a) an irrevocable, worldwide, perpetual (subject to Sections 8.3 and 8.4), royalty-free, exclusive, transferrable (subject to Section 9.1 below) license, with right to sublicense (subject to Section 4.3 below), in and to any Monsanto Improvements for all purposes in the Protiva Field; and

(b) an irrevocable, worldwide, perpetual (subject to Sections 8.3 and 8.4), royalty-free, exclusive, non-transferrable (except as provided in Section 9.1 below) license, with right to sublicense (subject to Section 4.3 below), in and to any Joint Project Intellectual Property for all purposes in the Protiva Field.

4.3 **Sublicenses**. Protiva may grant sublicenses of its licenses to Monsanto Improvements or Joint Project Intellectual Property in the Protiva Field to Third Parties for the purposes for which such licenses are granted to Protiva; provided, however, that any sublicense granted by Protiva shall be subject and subordinate to the terms and conditions of this Agreement and shall contain terms and conditions consistent with those in this Agreement. Protiva shall assume full responsibility for it sublicensees' performance of all obligations and observance of all terms in this Agreement applicable to the licenses granted to Protiva and to Confidential Information of Monsanto. If Protiva becomes aware of a material breach of any sublicense by its sublicensee, Protiva shall promptly notify Monsanto of the particulars of same and take all reasonable efforts to enforce the terms of such sublicense. Any agreement between Protiva and its sublicensee shall provide that such sublicensee may only use the Confidential Information of Monsanto in accordance with terms of this Agreement applicable to Protiva's use of such Confidential Information and subject to provisions at least as stringent as those set forth in ARTICLE 5, and Monsanto shall be an express third party beneficiary of such agreement, including provisions related to use and disclosure of Confidential Information. Protiva shall notify Monsanto within thirty (30) days after execution of a sublicense entered into hereunder and provide a copy of the fully executed sublicense agreement to Monsanto within the same time, which shall be treated as Confidential Information of such other Party under ARTICLE 5. Subject to the foregoing provisions of this Section 4.3, sublicensees shall have the right to further sublicense Monsanto Improvements or Joint Project Intellectual Property in the Protiva Field to Third Parties.

4.4 **Reserved Rights**. No Party grants to any other Party any rights or licenses in any intellectual property or other proprietary rights of such Party, except as specifically set forth herein. All rights not expressly granted by a Party under this Agreement are reserved by such Party and may be used by such Party for any purpose. For the avoidance of doubt, except to the extent expressly provided in this Agreement or any of the other Transaction Agreements, the cooperation of the Parties under this Agreement is not to be construed as (i) a grant by Protiva to Monsanto or the Company of a license or other rights to use any Protiva Intellectual Property or Confidential Information of Protiva; or (ii) a grant by Monsanto of a license or other rights to use any Monsanto Project Intellectual Property, any other intellectual property of Monsanto, or any Confidential Information of Monsanto.

4.5 **Patent Prosecution of Monsanto Project Intellectual Property**. Monsanto shall have the sole right and responsibility, in its sole discretion and at its expense, to file, prosecute, maintain and/or abandon patent protection in the Territory for Monsanto Project Intellectual Property.

4.6 **Patent Prosecution of Joint Project Intellectual Property**. Decisions regarding the filing of Patent protection in the Territory for Joint Project Inventions and decisions regarding the prosecution, maintenance and/or abandonment of Joint Project Patents in the Territory shall be made by Monsanto and/or the JRC in accordance with the applicable provisions of the Option Agreement and, subject to and in accordance with such provisions, Monsanto shall be responsible for implementing Monsanto's and/or the JRC's decisions regarding the filing, prosecution, maintenance, and/or abandonment of Joint Project Patents in the Territory, at Monsanto's expense.

4.7 **Third-Party Infringement of Monsanto Improvements**. Each Party shall promptly report in writing to the other Party any known or suspected infringement by a Third Party of any of Monsanto Improvements of which such Party becomes aware and shall provide the other Party with all available evidence supporting such infringement. Monsanto shall have the sole and exclusive right to initiate an infringement or other appropriate suit in the Territory with respect to infringements or suspected infringements of any of Monsanto Improvements, or to take such other actions as Monsanto, in its sole discretion, deems appropriate with respect to such infringements or suspected infringements. Protiva shall provide such further support and assistance in connection with any such actions (including joinder in any such litigation if necessary or useful for Monsanto to pursue such litigation or collect damages) as Monsanto may reasonably request and at Monsanto's sole cost and expense.

4.8 **Third-Party Infringement of Joint Project Intellectual Property** .

(a) Each Party shall promptly report in writing to the other Party during the Term any known or suspected infringement by a Third Party of any of the Joint Project Intellectual Property of which such Party becomes aware and shall provide the other Party with all evidence supporting or relating to such infringement in its possession.

(b) Monsanto shall have the right, but not the obligation, to initiate an infringement or other appropriate suit with respect to infringements or suspected infringements of any of the Joint Project Intellectual Property, or to take such other actions as Monsanto, in its sole discretion, deems appropriate with respect to such infringements or suspected infringements (" **Joint Project Patent Infringement Action** "). If Monsanto declines to commence a Joint Project Patent Infringement Action with respect to a particular actual or threatened infringement of any issued patent within the Joint Project Intellectual Property (an " **Identified Infringement** ") within sixty (60) days following its receipt of a written request from Protiva that it initiate a Joint Project Patent Infringement Action with respect to such Identified Infringement, or if Monsanto otherwise fails to confirm that it will commence a Joint Project Patent Infringement Action with respect to such Identified Infringement within such sixty (60) day period, then Protiva may thereafter commence a Joint Project Patent Infringement Action with respect to such Identified Infringement. Protiva shall use reasonable best efforts to notify Monsanto prior to initiating any Joint Project Patent Infringement Action and shall continue to inform Monsanto of the status of any Joint Project Patent Infringement Action initiated by Protiva, including by responding to Monsanto's reasonable requests for status reports, providing drafts of substantive filings of Protiva prior to the due date for such filings, and providing copies of substantive filings of any other party to any such Joint Project Patent Infringement Action promptly after receiving such filings. If any monetary judgment or settlement is recovered in connection with any Joint Project Patent Infringement Action initiated by Monsanto or Protiva in accordance with this Section 4.8 (b) , then, after Monsanto or Protiva, as applicable, recoups actual costs and reasonable expenses associated with such Joint Project Patent Infringement Action, (i) then if the monetary judgment or settlement is primarily attributable to infringement in the Protiva Field, Protiva shall be entitled to receive from the remainder an amount equal to all direct damages attributable to infringement in the Protiva Field awarded in such judgment or payable under such settlement; Monsanto shall then be entitled to receive from the remainder after such payment to Protiva, if any, an amount equal to all direct damages attributable to infringement outside of the Protiva Field awarded in such judgment or payable under such settlement; and the balance, if any, remaining after such payments to Protiva and Monsanto shall be allocated and payable **[***]** to Protiva and **[***]** to Monsanto; or (ii) if the monetary judgment or settlement is primarily attributable to infringement outside of the Protiva Field, Monsanto shall be entitled to receive from the remainder an amount equal to all direct damages attributable to infringement outside of the Protiva Field awarded in such judgment or payable under such settlement, Protiva shall then be entitled to receive from the remainder after such payment to Monsanto, if any, an amount equal to all direct damages attributable to infringement in the Protiva Field awarded in such judgment or payable under such settlement; and the balance, if any, remaining after such payments to Monsanto and Protiva shall be allocated and payable **[***]** to Protiva and **[***]** to Monsanto.

4.9 **Defense of Claims Brought by Third Parties** . Each Party shall promptly notify the other Party if it becomes aware of any claim that Protiva's use or practice of the Joint Project Intellectual Property or Monsanto Improvements in connection with its exercise of the licenses granted under Section 4.2 infringes, misappropriates, or otherwise violates the intellectual property rights of any Third Party. In any such instance, the Parties shall cooperate and shall mutually agree upon an appropriate course of action; provided , however , that in the absence of any such agreement, (i) Monsanto shall have sole right to determine what action, if any, should be taken in respect of Monsanto Improvements; (ii) Monsanto shall have sole right to determine what action, if any, should be taken in respect of infringement of Joint Project Intellectual Property occurring primarily in the Agricultural Field; and (iii) such matter shall be referred to the JRC, to be resolved in the manner set forth in the Option Agreement, in respect of any infringement of Joint Project Intellectual Property occurring primarily outside of the Agricultural Field (such matter a " **JRC Joint IP Infringement Matter** "). Each Party shall provide to the other Party copies of any notices it receives from Third Parties regarding any patent nullity actions regarding the Joint Project Intellectual Property or Monsanto Improvements, any declaratory judgment actions and any alleged infringement or misappropriation of Third Party intellectual property rights arising out of Protiva's use or practice of the Joint Project Intellectual Property or Monsanto Improvements in connection with its exercise of its license under Section 4.2 . Monsanto shall provide to Protiva copies of any notices it receives from Third Parties regarding any declaratory judgment actions and any alleged commercially relevant infringement or misappropriation of Third Party intellectual property rights arising out of Monsanto's use or practice of the Joint Project Intellectual Property or Monsanto Improvements. Each Party shall be responsible for its own costs incurred pursuant to this Section 4.9 and nothing in this Section 4.9 shall be deemed to limit or eliminate a Party's right to defend actions initiated by a Third Party against such Party, except to the extent such rights may be limited under any indemnification provisions applicable to such actions.

4.10 **Waiver of Warranties** . Without limiting the generality of Section 7.2 , Protiva acknowledges and agrees that Monsanto makes no warranty, express or implied, whether arising by course of dealing or performance, custom, usage in the trade or profession or otherwise, including but not limited to, implied warranties of merchantability, fitness for a particular purpose, validity and non-infringement, with respect to any Monsanto Improvements or Joint Project Intellectual Property. Accordingly, Monsanto has and shall have no liability or obligation to Protiva (or its Affiliates, or their respective agents, directors, officers, or employees, or their respective successors and permitted assigns or sublicensees) whatsoever in the event Protiva's use of Monsanto Improvements or Joint Project Intellectual Property in connection with its exercise of its license under Section 4.2 , or in the event any product or service made, used, provided, developed or commercialized by Protiva in connection with its exercise of its license under Section 4.2 , does or is alleged to infringe, misappropriate, or otherwise violate any Third Party's Intellectual Property. Each Party shall promptly notify the other Party if it becomes aware of any claim that Protiva's practice of Monsanto Improvements or Joint Project Intellectual Property in connection with its exercise of its license under Section 4.2 infringes, misappropriates, or otherwise violates the intellectual property rights of any Third Party.

ARTICLE 5
CONFIDENTIALITY

5.1 **Non-Disclosure of Confidential Information**. Each Party agrees that, for itself and its Affiliates, until the first to occur of (i) **[***]** or (ii) **[***]** , a Receiving Party shall maintain all Confidential Information of the Disclosing Party in strict confidence and shall not (x) disclose Confidential Information to any third party without the prior written consent of the Disclosing Party, except for disclosures expressly permitted below or (y) use Confidential Information for any purpose except those explicitly licensed or otherwise authorized or permitted by this Agreement or any other Transaction Agreement.

5.2 **Exceptions**. The obligations in Section 5.1 will not apply with respect to any portion of the Confidential Information that the Receiving Party can show by competent 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. Specific Confidential Information disclosed by a Disclosing Party will 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 and provided further that 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. 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. Confidential Information that is Joint Project Intellectual Property shall be deemed to be Confidential Information disclosed by Monsanto as the Disclosing Party to Protiva as the Receiving Party and the exceptions of (i) and (iv) shall not apply with respect to such Confidential Information.

5.3 **Permitted Uses**. Confidential Information of a Disclosing Party may be used by the Receiving Party in the performance of its obligations under any Transaction Agreement, as otherwise expressly authorized in any Transaction Agreement or as expressly authorized by the Disclosing Party in writing. Confidential Information that is Joint Project Intellectual Property may be used by Protiva subject to and in accordance with the provisions of this Agreement applicable to Protiva's license to Joint Project Intellectual Property. Protiva shall take steps to maintain the confidentiality of such Confidential Information that are consistent with the steps it takes to maintain the confidentiality of its own most-valuable confidential information, but in no event less than commercially reasonable steps (and, for the avoidance of doubt, nothing in this Section 5.2 shall be deemed to eliminate or modify Protiva's obligations under Section 2.3 above); provided, however, that nothing in this Agreement shall be deemed to eliminate, restrict, or otherwise limit Protiva's license to use such Confidential Information in accordance with the terms 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 5.4 below.

5.4 **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 any Party, in order to comply with applicable non-patent law (including any securities law or regulation 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 any Party, in connection with prosecuting or defending litigation; (iii) by any Party in connection with any filing and prosecuting Protiva Project Patents or Joint Project Patents only in a manner that complies with such Party's rights and obligations in connection with such matters as set out in the Transaction Agreements; (vi) subject to the proviso below, by Protiva or its sublicensees, in connection with any legal or regulatory requirements related to the development, sale, offer for sale, use or manufacture of commercial products (or potential commercial products) that use or employ Joint Project Intellectual Property, such as labeling requirements, disclosures in connection with obtaining regulatory approvals, disclosures in connection with applications to drug regulatory authorities, and the like, so long as the discovery, development, use, manufacture, and commercialization of such products has been and is performed in a manner that complies with the terms and conditions of Protiva's license to such Joint Project Intellectual Property and reasonable steps shall be taken to maintain the confidentiality of said Confidential Information even when disclosed for legal or regulatory purposes; (v) subject to the proviso below, by the Company, to its Affiliates, permitted acquirers or assignees under the Transaction Agreements and its or any of their research collaborators, subcontractors, lenders (but, with respect to lenders, only Confidential Information related to the terms and conditions of the Transaction Agreements and financial information related thereto), and their and each of the Company's and its Affiliates' respective directors, employees, contractors and agents; (vi) subject to the proviso below, by Monsanto, to its Affiliates, permitted acquirers or assignees under the Transaction Agreements and its or any of their research collaborators, subcontractors, lenders (but, with respect to lenders, only Confidential Information related to the terms and conditions of the Transaction Agreements and financial information related thereto), and their and each of Monsanto's and its Affiliates' respective directors, employees, contractors and agents; and (viii) subject to the proviso below, by Protiva, to its Affiliates, permitted acquirers or assignees under the Transaction Agreements and its or any of their research collaborators, subcontractors, lenders (but, with respect to lenders, only Confidential Information related to the terms and conditions of the Transaction Agreements and financial information related thereto), and their and Protiva's and its Affiliates' respective directors, employees, contractors and agents, provided, that (a) with respect to clause (i), (ii) and (iv) where legally permissible, (1) 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, and (2) consistent with applicable law or regulation, 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, and (b) with respect to clause (v), (vi) and (vii), each Person to whom Confidential Information is disclosed must be bound prior to disclosure by confidentiality and non-use restrictions at least as restrictive as those contained in this Agreement (other than investment bankers, investors and lenders, who must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

ARTICLE 6
INDEMNIFICATION

6.1 **Monsanto Indemnification**. Monsanto 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 and against any and all losses, costs, damages, fees or expenses ("**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 any breach of any representation, warranty or covenant by Monsanto under this Agreement or Monsanto's gross negligence or willful misconduct. The foregoing indemnification shall not apply to the extent that any Losses are due to (i) a breach of any of Protiva's representations, warranties, covenants and/or obligations under this Agreement or (ii) Protiva's gross negligence or willful misconduct.

6.2 **Protiva Indemnification**. Protiva agrees to indemnify Monsanto, its Affiliates, and their respective agents, directors, officers, employees, representatives, successors, and permitted assigns (the "**Monsanto Indemnitees**") against and to hold each of them harmless from and against any and all Losses actually incurred or suffered by a Monsanto 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, (b) Protiva's gross negligence or willful misconduct, or (c) any use or employment by Protiva or any of its sublicensees of any Monsanto Improvement or Joint Project Intellectual Property. The foregoing indemnification obligations shall not apply to the extent that any Losses are due to (i) a breach of any of Monsanto's representations, warranties, covenants and/or obligations under this Agreement or (ii) Monsanto's gross negligence or willful misconduct.

6.3 **Tender of Defense; Counsel**. Any Person (the "**Indemnified Party**") seeking indemnification under ARTICLE 6 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 such section. 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 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, upon its written confirmation of its obligation to indemnify the Indemnified Party in accordance with this ARTICLE 6, 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 twenty (20) calendar days 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 conduct the defense of the Third Party Claim 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 (a) does not expressly unconditionally release all applicable Indemnified Parties and their Affiliates from all Liabilities with respect to such Third Party Claim or (b) imposes injunctive or other equitable relief against the Indemnified Party or any of its Affiliates, involves any admission of criminal or similar liability, or (c) 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 6.3, (a) the Indemnified Party may defend against the Third Party Claim in any manner it reasonably may deem appropriate, and (c) the Indemnifying Party will 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 6.3, 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.

ARTICLE 7
WARRANTIES AND LIMITATIONS

7.1 **Mutual Representations and Warranties**. Each Party represents and warrants to the other Party as of the Effective Date that: (a) it is duly organized and validly existing under the applicable law of the jurisdiction of its incorporation or formation, and has full power and authority to enter into 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 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) laws of general application relating to bankruptcy, insolvency and the relief of debtors, and (B) rules of law governing specific performance, injunctive relief and other equitable remedies, and (d) it has the right to grant to such other Party, its Affiliates and sublicensees the licenses granted hereunder and has not granted any conflicting rights to any other Person.

7.2 **Warranty Disclaimer**. **THE WARRANTIES IN THIS ARTICLE 7 AND ARTICLE 11 ARE IN LIEU OF, AND EACH PARTY HEREBY WAIVES, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OR WHETHER ARISING BY COURSE OF DEALING OR PERFORMANCE, CUSTOM, USAGE IN THE TRADE OR PROFESSION OR OTHERWISE, INCLUDING BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY AND NON-INFRINGEMENT, WITH RESPECT TO THE COMPOUNDS, FORMULATIONS, OR SERVICES PROVIDED UNDER THIS AGREEMENT.** Except for the warranties expressly set forth in this ARTICLE 7 and ARTICLE 11, each of Protiva, the Company and Monsanto acknowledges and agrees that it has relied on no other representations or warranties in connection with entrance into this Agreement and the provision of the Services hereunder and that no other representations or warranties have formed the basis of its bargain hereunder.

7.3 Consequential Damages. **UNDER NO CIRCUMSTANCES WILL ANY PARTY BE LIABLE TO ANY OTHER PARTY WITH RESPECT TO THE PROVISION OF THE SERVICES HEREUNDER 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, INCLUDING, WITHOUT LIMITATION, CLAIMS FOR LOSS OF GOODWILL OR LOST PROFITS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OCCURRING. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 7.3 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 5 OR ANY DAMAGES THAT MAY BE AVAILABLE TO A PARTY AS A RESULT OF ANOTHER PARTY'S BREACH OF ITS OBLIGATIONS UNDER ANY OTHER TRANSACTION AGREEMENT, SUBJECT TO THE LIMITATIONS SET FORTH THEREIN.**

7.4 Coordination with Other Transaction Agreements. The exclusion of warranties set forth in Section 7.2 and the limitations on damages set forth in Section 7.3 shall not be deemed to modify or eliminate any warranties or covenants made in any other Transaction Agreements or any liabilities or damages for breach of any such warranties or covenants under any such other Transaction Agreements.

ARTICLE 8
TERM AND TERMINATION

8.1 **Term**. The term of this Agreement and Monsanto's obligation to provide the Services covered hereby (the "**Term**") shall commence on the Effective Date and shall expire upon the earlier to occur of (i) Failure to Exercise, (ii) completion of Phase C, or (iii) the election by Monsanto to terminate research under the Research Plan in the event Monsanto exercises the Call Option prior to completion of Phase C.

8.2 **Consequences of Expiration of Term; Survival**. Upon expiration of the Term, ARTICLE 1 (Definitions), ARTICLE 3 (Compensation) (to the extent payments thereunder are accrued but remain unpaid at expiration or termination of the Agreement), ARTICLE 4 (Intellectual Property) (except as provided below), ARTICLE 5 (Confidentiality), ARTICLE 6 (Indemnification) (to the extent provided in such section), and ARTICLE 9 (General Provisions) shall survive any expiration or termination of this Agreement; all other provisions of this Agreement shall terminate upon the expiration or termination of this Agreement.

8.3 **Termination and Survival of License Rights after Expiration of the Term** . Except as, and as further provided in, this Section 8.3 , the licenses granted to Protiva pursuant to Section 4.2 shall survive expiration of the Term.

(i) In the event of a material breach of the provisions of this Agreement after expiration of the Term, Monsanto may provide notice to Protiva setting forth the nature of the breach and a description of the facts underlying the breach sufficient to identify the breach. If Protiva has not cured such breach or proposed a reasonably satisfactory plan to cure or otherwise remedy such breach within ninety (90) days from the date of receipt of such notice of breach, Monsanto may provide a notice of termination to Protiva and this Agreement shall terminate ninety (90) days after such notice of termination unless the breach is cured to the reasonable satisfaction of Monsanto or unless Protiva has begun to implement a reasonably satisfactory plan to cure or otherwise remedy such breach within ninety (90) days from the receipt of such notice of termination. Notwithstanding the foregoing, or any termination of Protiva's licenses pursuant to Section 8.4 below, with respect to any sublicense entered into by Protiva for which the sublicensee is not the cause of the material breach that resulted in the termination of this Agreement, then upon the assignment to Monsanto of all rights of Protiva under such sublicense, Monsanto shall assume those obligations of Protiva to such sublicensee under such sublicense that are within the scope of Monsanto's obligations to Protiva under this Agreement; all other obligations to the sublicensee under such sublicense, and all liabilities of Protiva to such sublicensee, shall remain the sole and exclusive obligations and liabilities of Protiva, and nothing in this Section 8.3 (i) shall be deemed to expand, increase, or otherwise modify Monsanto's obligations or liabilities under this Agreement.

(ii) If Protiva or any of its Affiliates shall (i) commence or participate in any action or proceeding (including any patent opposition or re-examination proceeding), or otherwise assert in writing any claim, challenging or denying the validity of any Patent claiming any Monsanto Improvement, any Patent that is Joint Project Intellectual Property, or any claim of any such Patent or (ii) actively assist any other Person in bringing or prosecuting any action or proceeding (including any patent opposition or re-examination proceeding) challenging or denying the validity of any such Patent or any claim thereof, Monsanto will have the right to give notice to Protiva (which notice must be given, if at all, within sixty (60) days after Monsanto first learns of the foregoing) that the licenses granted by Monsanto to such Patent will terminate in thirty (30) days following such notice, and, unless Protiva and/or its Affiliate, as applicable, withdraws or causes to be withdrawn all such challenge(s) within such thirty-day period, such licenses will so terminate.

8.4 **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 the 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 ninety (90) days undismissed, unstayed, unbonded and undischarged, the Solvent Party may terminate this Agreement (including, if Protiva is the Insolvent Party, the licenses granted to Protiva pursuant to Section 4.2) upon written notice to the Insolvent Party at any time.

ARTICLE 9
GENERAL PROVISIONS

9.1 **Assignment**. Except as otherwise provided in this Agreement, neither Protiva nor the Company may assign this Agreement, delegate its obligations or otherwise transfer or assign licenses or other rights created by this Agreement, without the prior written consent of Monsanto. Any assignment or transfer in violation of this Section 9.1 will be void. This Agreement will inure to the benefit of, and be binding upon, the legal representatives, successors and permitted assigns of the Parties.

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 **Severability**. If any one or more of the provisions contained in this Agreement is held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein will not in any way be affected or impaired thereby, unless the absence of the invalidated provision(s) adversely affects the substantive rights of the Parties. The Parties will in such an instance use their reasonable best efforts to replace the invalid, illegal or unenforceable provision(s) with valid, legal and enforceable provision(s) which, insofar as practical, implement the purposes of this Agreement.

9.4 **Amendment; Waiver**. Except as otherwise set forth in this Agreement, this Agreement may not be modified, amended or rescinded, in whole or part, except by a written instrument signed by the Parties. No delay or omission by any Party hereto in exercising any right or power occurring upon any noncompliance or default by any other Party with respect to any of the terms of this Agreement will impair any such right or power or be construed to be a waiver thereof. A waiver by any of the Parties of any of the covenants, conditions or agreements to be performed by the other will not be construed to be a waiver of any succeeding breach thereof or of any other covenant, condition or agreement herein contained.

9.5 **Legal Fees and Costs**. Except as otherwise provided herein, all legal fees and other costs and expenses incurred in connection with this Agreement and the transactions contemplated hereby are to be paid by the Party incurring such fees, costs and/or expenses.

9.6 **Notices**. Except as otherwise provided herein, all notices under this Agreement will be sent by certified mail or by overnight courier service, postage prepaid, to the following addresses of the respective Parties:

If to Protiva, to:

Protiva Pharmaceuticals Corporation
100-8900 Glenlyon Parkway
Burnaby, B.C.
Canada V5J 5J8
Attention: President & CEO
Facsimile No.: (604) 630-5103

With a copy (which shall not constitute notice) to:

Orrick, Herrington & Sutcliffe LLP
51 West 52 nd Street
New York, NY 10019
Attention: R. King Milling
Facsimile No.: (212) 506-5151

If to Monsanto: Monsanto Company
800 North Lindbergh Boulevard
St. Louis, Missouri 63167
Attention: Technology Alliances Lead

With a copy to: Monsanto Company
800 North Lindbergh Boulevard
St. Louis, Missouri 63167
Attention: Deputy General Counsel, Intellectual Property

or to such address as each Party may hereafter designate by notice to the other Parties. A notice will be deemed to have been given on the date it is received by all required recipients for the noticed Party.

9.7 **Applicable Law; Jurisdiction** . 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. In the event any action shall be brought to enforce or interpret the terms of this Agreement, the Parties agree that such action will be brought in the State or Federal courts located in New York, New York. Each of the Parties hereby irrevocably submits with regard to any action or proceeding for itself and in respect to its property, generally and unconditionally, to the nonexclusive jurisdiction of the aforesaid courts. Each of the Parties hereby irrevocably waives, and agrees not to assert, by way of motion, as a defense, counterclaim or otherwise, in any action or proceeding with respect to this Agreement, (a) any claim that it is not personally subject to the jurisdiction of the above-named courts for any reason other than the failure to lawfully serve process, (b) that it or its property is exempt or immune from jurisdiction of any such court or from any legal process commenced in such courts (whether through service of notice, attachment prior to judgment, attachment in aid of execution of judgment, execution of judgment or otherwise), and (c) to the fullest extent permitted by Applicable Law, that (i) the suit, action or proceeding in any such court is brought in an inconvenient forum, (ii) the venue of such suit, action or proceeding is improper, and (iii) this Agreement, or the subject matter hereof, may not be enforced in or by such courts.

9.8 **Further Assurances**. Each Party agrees to do and perform all such further acts and things and will execute and deliver such other agreements, certificates, instruments and documents necessary or that the other Parties may deem advisable in order to carry out the intent and accomplish the purposes of this Agreement and to evidence, perfect or otherwise confirm its rights hereunder.

9.9 **Relationship of the Parties**. Each Party is an independent contractor under this Agreement. Nothing contained herein shall be construed so as to deem Monsanto, Protiva and the Company as entering into a partnership, agency agreement or joint venture. No Party will have any express or implied right or authority to assume or create any obligations on behalf of or in the name of the other Parties or to bind the other Parties to any contract, agreement or undertaking with any third party. There are no express or implied third party beneficiaries hereunder.

9.10 **Entire Agreement**. This Agreement (along with the Exhibits) and the other Transaction Agreements contain the entire understanding of the Parties 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 with respect to the subject matter hereof and thereof.

9.11 **Headings**. The captions to the several Articles and Sections hereof are not a part of this Agreement, but are merely guides or labels to assist in locating and reading the several Articles and Sections hereof.

9.12 **Waiver of Rule of Construction**. Each Party 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 will be construed against the drafting party will not apply. This Agreement and all provisions hereof shall in all cases be construed as a whole, according to the fair meaning of the language used.

9.13 **Interpretation**. Whenever any provision of this Agreement uses the term "including" (or "includes"), such term will be deemed to mean "including without limitation" (or "includes without limitations"). "Herein," "hereby," "hereunder," "hereof" and other equivalent words refer to this Agreement as an entirety and not solely to the particular portion of this Agreement in which any such word is used. All definitions set forth herein will be deemed applicable whether the words defined are used herein in the singular or the plural. Unless otherwise provided, all references to Articles, Sections and Exhibits in this Agreement are to Articles, Sections and Exhibits of this Agreement. References to any Articles or Sections include Sections and subsections that are part of the related Section (*e.g* ., a section numbered " Section 2.1 " would be part of " ARTICLE 2 ", and references to " Section 2.1 " would also refer to material contained in the subsection described as " Section 2.1(a) "). All dollar amounts are expressed in U.S. dollars.

9.14 **Counterparts & Electronic Signatures**. This Agreement may be executed in two or more counterparts, each of which will be deemed an original and all of which together will constitute one and the same instrument. Each shall be considered signed when the signature of a Party is delivered by facsimile, electronic signature or electronic (email) transmission to the other Parties, when it is delivered in a manner that reasonably identifies the signatory as the Party named. Such electronic signatures shall be treated in all respects as having the same effect as an original signature. If requested by any Party, documents bearing an original signature may be subsequently and promptly submitted to replace copies bearing electronic signatures. By signing this Agreement the representatives of each Party thereby represent that such Person is duly authorized by the Party in question to execute this Agreement on behalf of such Party and that each respective Party agrees to be bound by the provisions thereof. The Parties to this document agree that a copy of the original signature (including an electronic copy) may be used for any and all purposes for which the original signature may have been used.

9.15 **Bankruptcy Treatment**. The Parties agree that the commencement of a case under Chapter 11 of the Bankruptcy Code by or against a Party shall not, in and of itself, constitute or be deemed a change of control so long as such Party continues as a debtor-in-possession under Section 1107 of the Bankruptcy Code, and so long as no other change of control has occurred. The Parties acknowledge that all licenses granted in this Agreement are deemed to be and shall be treated as licenses of intellectual property under Section 101(35A) of the Bankruptcy Code, and that the provisions of Section 365(n) of the Bankruptcy Code shall apply to such licenses. The Parties further acknowledge that this Agreement is to be deemed and treated as an executory contract under Section 365 of the Bankruptcy Code and is subject to the restrictions on assumption and assignment in Section 365(c), except that the Parties hereby consent, in satisfaction of Sections 365(c)(1)(B), to an assumption, but not assignment, of this Agreement (including all licenses of intellectual property) by a Party that is serving as the debtor-in-possession in its Chapter 11 case; provided, that all the other provisions in Section 365 related to assumption of an executory contract have been satisfied.

9.16 **Dispute Resolution**.

(a) **General**. Any dispute, controversy or claim arising out of or relating to this Agreement shall be resolved in accordance with the provisions of the Section 12(k) of the Option Agreement.

(b) **Equitable Remedies**. Subject to the Section 12(k) of the Option Agreement, notwithstanding anything to the contrary in this Section 9.16, if a Party in its sole judgment believes that any breach of this Agreement could cause it irreparable harm, such Party will be entitled to seek equitable relief to avoid such irreparable harm. Each of the Parties hereto irrevocably and unconditionally submits, for itself and its property, to the exclusive jurisdiction of (i) any state court located in the State of Delaware and (ii) the United States District Court for the District of Delaware, for purposes of equitable relief of the terms hereof. Each of the Parties hereto further agrees that, to the fullest extent permitted by applicable law, service of any process, summons, notice or document by U.S. registered mail to such Person's respective address set forth in Section 9.6 hereto shall be effective service of process for any action in Delaware with respect to any matters to which it has submitted to jurisdiction as set forth above in the immediately preceding sentence. Nothing in this Agreement will affect the right of any Party to this Agreement to serve process in any other manner permitted by applicable law. Each of the Parties hereto irrevocably and unconditionally waives (and agrees not to plead or claim) any objection to the laying of venue of any action arising out of this Agreement or the transactions contemplated hereby in (x) any state court located in the State of Delaware or (y) the United States District Court for the District of Delaware, or that any such action brought in any such court has been brought in an inconvenient forum.

9.17 **CREATE Act .** The Parties intend for this Agreement to be a "joint research agreement" as that term is defined under the Cooperative Research and Technology Enhancement Act of 2004, 35 U.S.C. § 103(c)(3) and where appropriate, the Parties will reasonably cooperate in invoking the CREATE Act and its companion regulations in order to overcome an obviousness objection to a patent application based on prior art; provided, however, that nothing in this Section 9.17 shall be deemed to modify any provisions in any Transaction Agreement relating to the ownership of intellectual property by any of the Parties.

ARTICLE 10
TAXES

10.1 The payments made or payable to Monsanto pursuant to Section 3 are inclusive of all taxes, including applicable sales and use taxes, customs duties and excise taxes (collectively, " **Taxes** ") except any amounts payable in respect of the federal Goods and Services Tax or Harmonized Sales Tax imposed pursuant to the Excise Tax Act (Canada) (the " **ETA** ") and the Quebec Sales Tax (collectively, " **GST** "). Applicable Taxes imposed on Protiva shall be separately stated and identified on each invoice issued by Monsanto in compliance with appropriate Tax laws or regulations. For further clarification, Monsanto shall be responsible for paying its Canadian income taxes (if any) and non-Canadian income taxes and any other taxes of any kind in any jurisdiction that might become payable in relation to the provision of the Services. Protiva shall bear no responsibility for any income, gross margin, franchise, capital, net worth or other type of direct tax that may inure to Monsanto as a result of any transaction under this Agreement.

10.2 Monsanto represents that it is not registered for the purposes of the GST legislation.

10.3 Monsanto is a non-resident of Canada for purposes of the Income Tax Act (Canada) (the " **ITA** ") and has not obtained and provided to Protiva a non-resident withholding tax waiver at such time. Where Protiva makes any payment to Monsanto for the Services rendered in Canada, Protiva shall withhold such percentage of any payment made by it for the Services as is from time to time mandated under the ITA and shall remit the withheld amount to Canada Revenue Agency, or its successor, in the manner and at the time required by the ITA. In the event that Protiva is assessed for any non-resident withholding taxes payable on payments made under this Agreement, Monsanto agrees to forthwith reimburse Protiva for such amount together with applicable interest and penalties, if any, except (i) Monsanto shall not be liable for interest and penalties where Monsanto correctly disclosed Services performed in Canada pursuant to Section 10.4 and Protiva did not correctly withhold the appropriate amount, and (ii) Monsanto shall not be liable for interest and penalties where Protiva failed to remit the withheld amount in the manner and at the time required by the ITA.

10.4 With respect to the invoice for Services, Monsanto shall separate the invoice between services performed in Canada and outside of Canada, identify on the invoice the number of days performing services in Canada (including travel days to/from Canada) and the physical location, indicating city and province, where the Canadian service was performed.

ARTICLE 11
FCPA COMPLIANCE

11.1 **Compliance with Laws**. Each Party represents and warrants that it will take no action, and have taken no past action, in relation to this Agreement that would be in violation of, or would subject such Party to any liability or penalty under, the applicable laws and regulations of the United States of America.

11.2 **Conflict of Interest**. Each Party represents and warrants that it is in compliance with all relevant laws governing conflicts of interest in the USA and that this Agreement is not otherwise inconsistent with any of the relevant laws or any restrictions imposed by any government agencies, and each has obtained any and all necessary approvals from relevant government agencies before entering into this Agreement. These representations shall continue throughout the Term.

11.3 **No Improper Payments**. Each Party represents and warrants that no improper payments will be promised, will be paid, have been promised or have been paid to any Persons, including foreign or governmental officials or any governmental authority in any jurisdiction for the formation of this Agreement. In addition, each Party represents that no improper payments have been paid or promised to improperly influence anyone with regard to the formation of this Agreement.

11.4 **Breaches & Right to Terminate Under the FCPA**. Should any Party reasonably and in good faith believe that there may have been a breach of any representation or warranty of this Section 10 by any other Party, such other Party shall cooperate in good faith to determine whether such a breach has occurred. If, after such investigation the first Party reasonably determines that there has been a breach of any such representation or warranty by the second Party, the first Party shall have the right unilaterally to terminate this Agreement immediately or to take other appropriate action in accordance with the terms of this Agreement upon sixty (60) days' prior written notice of such breach. The basis for such determination shall be provided in writing from the first Party to the second Party prior to such termination.

11.5 **Notification**. Each Party warrants that it shall promptly notify the other Parties in writing if it ever receives a request to take any action which would or could violate its obligations under this ARTICLE 11 of the Agreement or the U.S. Foreign Corrupt Practices Act.

11.6 **Export Controls**. Notwithstanding any other provisions of this Agreement, each Party agrees to make no disclosure or use of any of the information or technology furnished or made known to it by the other Party pursuant to this Agreement except in compliance with the laws and regulations of the United States of America, including the Export Administration Regulations promulgated by the Office of Export Administration International Trade Administration, United States Department of Commerce; and in particular, each Party agrees not to export, directly or indirectly, either the technical data furnished or made known to it by the other Party pursuant to this Agreement; or the "direct product" thereof; or any commodity produced using such technical data to any country or countries for which a validated license is required unless a validated license is first obtained pursuant to the Export Administration Regulations. The term "direct product" as used above, is defined to mean the immediate product (including process and services) produced directly by the use of the technical data.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties hereto by their duly authorized representatives have caused this Agreement to be executed and delivered as of the date first shown above.

PROTIVA BIOTHERAPEUTICS, INC.

By: _____
Name:
Title:

PROTIVA AGRICULTURAL DEVELOPMENT COMPANY, INC.

By: _____
Name:
Title:

MONSANTO COMPANY

By: _____
Name: Robert M. McCarroll, Ph. D.
Title: Vice President, Chemistry Technology

[*Signature Page to Protiva-Monsanto Services Agreement*]

EXHIBIT A

COMPETITORS OF PROTIVA

[***]

EXHIBIT B – DATA SECURITY REQUIREMENTS

[***]

EXHIBIT B-1 to EXHIBIT B

[***]

EXHIBIT C – MATERIALS TRANSFER TRANSMITTAL

[Attached]

MATERIALS TRANSFER TRANSMITTAL

[_____] [__], 20[__]

Providing Party:
[Name]
[Address 1]
[Address 2]

Receiving Party:
[Name]
[Address 1]
[Address 2]

1.1 The following list of materials (the " Materials ") and a description of each is herewith provided by the Providing Party (named below) to the Receiving Party (named below) along with this Materials Transfer Transmittal (this " Transmittal "). These materials are being provided pursuant to the Protiva-Monsanto Services Agreement (the " Agreement "), dated as of [____], 2013, by and among Protiva Biotherapeutics, Inc., a Delaware corporation and a wholly-owned subsidiary of [Tekmira], a Canadian corporation, (" Protiva "), [AGNEW-CO], a Canadian [___] and a wholly-owned subsidiary of Protiva (" Company "), and Monsanto Company, a Delaware corporation (" M ons a nto "). The Receiving Party acknowledges and agrees that the materials described herein shall be used solely in connection with the performance of the Services contemplated by the Agreement and the PadCo-Protiva Services Agreement and the licenses for such use provided by one party to the other. Capitalized terms used but not defined herein shall have the meanings given to such terms in the Agreement.

[List here the materials and a brief description of each, including a marking that materials are believed by Providing Party to be confidential information of the providing party or a third party or any combination thereof, or otherwise. Attach additional pages if needed.]

1.2 The Receiving Party acknowledges receipt of the Materials. The Receiving Party may refuse to accept the Materials from a Providing Party by promptly returning all applicable Materials to the Providing Party without any use thereof being made and providing written notice of such return to the Providing Party.

1.3 This Transmittal shall become effective upon the date first written above and shall continue in full force and effect thereafter and be co-extensive and subject to the Agreement.

1.4 This Transmittal may only be terminated in accordance with the provisions of the Agreement. In the event that the Agreement and this Transmittal are terminated, the Receiving Party will give the Providing Party an inventory of the Materials in the Receiving Party's possession and at the time of such termination and such remaining Materials shall be treated as specified in the Agreement.

[Note: The materials shipment should be addressed to, and receipt acknowledged by, the Receiving Party's designee by initialing or executing duplicate originals of this Transmittal, with one copy returned to the Providing Party, to the attention of the undersigned designee of the Providing Party]

Providing Party:
[**NAME]**

By: _____
Name:
Title:
Address:

Receiving Party:
[**NAME]**

By: _____
Name:
Title:
Address:

Exhibit 10.33

EXECUTION COPY

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.

PROTIVA AGRICULTURAL DEVELOPMENT COMPANY INC.
OPTION AGREEMENT

TABLE OF CONTENTS

Exhibits

OPTION AGREEMENT

This OPTION AGREEMENT (this " **Agreement** "), made as of January 12, 2014 (the " **Effective Date** ") by and among **Monsanto Canada, Inc.** , a Canadian corporation (" **Monsanto Canada** "), **Tekmira Pharmaceuticals Corporation** , a British Columbia corporation (" **Tekmira** "), **Protiva Biotherapeutics Inc.** , a British Columbia corporation (" **Protiva** "), and **Protiva Agricultural Development Company Inc.** , a British Columbia corporation (the " **Company** ").

INTRODUCTION

A. The Company, a company newly-formed by Protiva and its wholly-owned subsidiary, has been formed for the purpose of conducting a program to design and synthesize Compounds and/or Formulations and to conduct research and development activities for such Compounds and/or Formulations as described in the Research Plan (the " **Research Program** ").

B. Concurrently with the execution of this Agreement, the Company and Protiva are entering into a License and Services Agreement (as the same may be amended, restated or otherwise modified from time to time, the " **PadCo-Protiva License and Services Agreement** "), pursuant to which, among other things, (a) the Company will allow Protiva to conduct services for the Company to design and synthesize Compounds and/or Formulations according to the Research Program and (b) Protiva will grant the Company the Protiva License.

C. Concurrently with the execution of this Agreement, Protiva and Monsanto Company, a Delaware corporation (" **Monsanto** "), are entering into a Services Agreement (as the same may be amended, restated or otherwise modified from time to time, the " **Protiva-Monsanto Services Agreement** "), pursuant to which, among other things, Monsanto will conduct services for Protiva to screen Compounds and/or Formulations according to the Research Program.

D. Protiva desires to grant to Monsanto Canada, and Monsanto Canada desires to be granted by Protiva, an option for Monsanto Canada to acquire all of the outstanding capital stock of the Company from Protiva, provided that at the request of Monsanto Canada at the time of giving notice of exercise of that option, Monsanto Canada may instead elect to be assigned the PadCo-Protiva License and Services Agreement, the Protiva License, the Company Owned Intellectual Property and the other Company Licensed Intellectual Property, if any, in the manner described herein.

In consideration of the foregoing and the agreements set forth below, the parties agree with each other as follows:

1. Certain Defined Terms. As used in this Agreement, the following terms shall have the following respective meanings:

" **Action** " means any pending or threatened claim, demand, notice, action, suit, arbitration, proceeding or investigation.

" **Affiliate** " means, when used with respect to a specified Person, another Person that either directly or indirectly, now or hereafter, through one or more intermediaries, controls, is controlled by, or is under common control with, the specified Person; provided , however , that until Monsanto has acquired all of the outstanding capital stock of the Company from Protiva, the Company shall not be an Affiliate of Monsanto Canada and none of Monsanto Canada or its Affiliates shall be an Affiliate of the Company. For purposes of this definition, "control" (including the terms "controlled by" and "under common control with"), with respect to the relationship between or among two or more Persons, shall mean the power to direct or cause the direction of the affairs or management of a Person, whether through the ownership of voting securities, as trustee, personal representative or executor, by contract or otherwise, including, without limitation, the ownership, directly or indirectly, of securities having the power to elect a majority of the board of directors or similar body governing the affairs of such Person.

" **Agricultural Field** " has the meaning in the PadCo-Protiva License and Services Agreement.

" **Board** " means the Board of Directors of the Company.

" **Business Day** " means any weekday on which banks are open for general banking business in St. Louis, Missouri and in Vancouver, British Columbia.

" **Call Period** " means the period commencing on the Effective Date of this Agreement and ending on the earliest to occur of (a) the Closing, (b) the expiration of the Option Notice Period without Monsanto Canada having exercised the Call Option, or (c) the termination of this Agreement in accordance with the terms of S ection 9 without a Closing having occurred.

" **Change of Control** " means (a) the closing of the sale, transfer or other disposition (including by way of exclusive license) of all or substantially all of an entity's assets, (b) the consummation of the merger or consolidation of an entity with or into another entity (except a merger or consolidation in which the members or stockholders of such original entity immediately prior to such merger or consolidation continue to hold at least fifty percent (50%) of the voting power of such original entity or the surviving or acquiring entity), or (c) the closing of the transfer (whether by merger, consolidation or otherwise), in one transaction or a series of related transactions, to a Person or group of Affiliated Persons (other than an underwriter of an entity's securities), of an entity's securities if, after such closing, such Person or group of affiliated Persons would hold fifty percent (50%) or more of the outstanding securities of such entity (or the surviving or acquiring entity).

" **Code** " means the *Income Tax Act* (Canada).

" **Commercial Milestone Payment** " has the meaning given to such term in the PadCo-Protiva License and Services Agreement.

" **Commercialize** " has the meaning given to such term in the PadCo-Protiva License and Services Agreement.

“ **Company Business** ” means discovering, identifying, characterizing and conducting research and Commercialization activities on Compounds and Formulations intended for the delivery of nucleic acids in the Agricultural Field.

“ **Company Licensed Intellectual Property** ” means the Intellectual Property licensed to the Company by any third party, including the Protiva Intellectual Property.

“ **Company Owned Intellectual Property** ” means all Intellectual Property owned by the Company.

“ **Completion Criteria** ” means the Option Insect Phase A Completion Criteria, the Option Plant Phase A Completion Criteria, the Option Insect Phase B Completion Criteria, the Option Plant Phase B Completion Criteria, the Option Insect Phase C Completion Criteria, the Option Plant Phase C Completion Criteria, the Upfront Option Completion Criteria, the Option Set-up Completion Criteria, the Option Shipment Completion Criteria, and the Technology Transfer Completion Criteria.

“ **Compound** ” has the meaning given to such term in the PadCo-Protiva License and Services Agreement.

“ **Confidential Information** ” has the meaning in the PadCo-Protiva License and Services Agreement.

“ **Continuing JRC Term** ” has the meaning in the PadCo-Protiva License and Services Agreement.

“ **Controlled by** ” has the meaning in the PadCo-Protiva License and Services Agreement.

“ **Copyrights** ” means United States and foreign copyrights, copyrightable works and mask works, whether registered or unregistered, and pending applications to register the same, and moral rights in the foregoing.

“ **Damages** ” means the amount of any liabilities, losses, damages, penalties, fines, charges (including costs of investigation), costs, claims, deficiencies, injuries, settlements, judgments, awards, fees, or expenses (including reasonable attorneys’ fees and expenses and reasonable costs and expenses of other professionals, including consultants and experts), whether or not involving an Action, including any costs of defending any Actions or enforcing an Indemnified Party’s rights under this Agreement, actually incurred or suffered by a party with respect to or relating to an Action, event, circumstance or state of facts.

“ **Data Package** ” means all relevant study reports and other previously prepared and reasonably related documents in the possession or control of (i) Protiva to the extent such reports or documents are generated pursuant to the Research Program or (ii) the Company, including existing development plans and regulatory correspondence, that provide evidence that Phase C has been completed.

" **Diligence Buyout Payment** " has the meaning given to such term in the PadCo-Protiva License and Services Agreement.

" **Disclosing Party** " means, as applicable, (i) Monsanto, Monsanto Canada and/or their Affiliates to the extent such "Disclosing Party" is disclosing Confidential Information to a Receiving Party; (ii) Protiva and/or its Affiliates (other than the Company and any subsidiaries of the Company) to the extent such "Disclosing Party" is disclosing Confidential Information to a Receiving Party; or (iii) the Company and/or any subsidiaries of the Company to the extent such "Disclosing Party" is disclosing Confidential Information to a Receiving Party. If the Closing occurs, then from and after the Closing, provisions regarding disclosures of Confidential Information made by the Company and/or any of its subsidiaries as the Disclosing Party to Protiva and/or its Affiliates (other than the Company and any subsidiaries of the Company) shall inure to the benefit of Monsanto Canada as the successor in interest to the Company (whether as a result of the acquision of the Company's right, title and interest in and to the Protiva License or the outstanding capital stock of the Company).

" **Early Option Exercise Price** " means **[***]** , plus (a) any Initiation Payments that have already been paid by Monsanto Canada pursuant to the terms of S ection 2(e) , plus (b) all Milestone Payments regardless of whether such Milestone Payment has already been paid by Monsanto Canada pursuant to the terms of S ection 3(b) , less (c) if Monsanto Canada exercises its option to purchase all outstanding capital stock of the Company pursuant to Section 3(a) , any Indebtedness of the Company or any of its subsidiaries.

" **Early Option Exercise Price Credits** " means (a) the Upfront Option Payment if already paid by Monsanto Canada pursuant to the terms of Section 3(b)(ii) , plus (b) any Initiation Payments that have already been paid by Monsanto Canada pursuant to the terms of Section 2(e) , plus (c) any Milestone Payments that have already been paid by Monsanto Canada pursuant to the terms of Section 3(b) .

" **Exclusivity Period** " means the period beginning on the Effective Date and ending on the later of (a) the termination by Monsanto Canada of this Agreement in accordance with the terms of S ection 9 , (b) the Failure to Exercise, or (c) the **[***]** .

" **Failure to Exercise** " means the expiration of the Call Period without Monsanto Canada exercising the Call Option.

" **Formulation** " has the meaning given to such term in the PadCo-Protiva License and Services Agreement.

" **GAAP** " means generally accepted accounting principles in the United States, 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.

" **Governmental Order** " means any order or injunction issued by or under the authority of any Governmental Authority.

" **Indebtedness** " means, as applied to any Person, (a) all indebtedness for borrowed money, whether current or funded, or secured or unsecured, (b) all indebtedness for the deferred purchase price of property or services represented by a note or other security (other than trade payables incurred in the ordinary course of business), (c) all indebtedness created or arising under any conditional sale or other title retention agreement with respect to property acquired (even though the rights and remedies of the seller or lender under such agreement in the event of default are limited to repossession or sale of such property), (d) all indebtedness secured by a purchase money mortgage or other lien to secure all or part of the purchase price of property subject to such mortgage or lien, (e) all obligations under leases which shall have been or must be, in accordance with GAAP, recorded as capital leases in respect of which such Person is liable as lessee, (f) any liability in respect of banker's acceptances or letters of credit, (g) all Tax or Taxes payable to a Governmental Authority, and (h) all indebtedness referred to in clauses (a), (b), (c), (d), (e), (f) or (g) above which is directly or indirectly guaranteed by or which such Person has agreed (contingently or otherwise) to purchase or otherwise acquire or in respect of which it has otherwise assured a creditor against loss.

" **Independent IP Counsel** " means (i) **[***]** or (ii) if **[***]** is unable to serve as Independent IP Counsel, then an independent, registered, U.S. patent attorney selected (i) by the mutual agreement of the parties hereto or (ii) if they cannot agree, each party hereto shall provide the names of two (2) law firms they find acceptable, excluding those firms the other party found unacceptable, to the third party arbitrator as provided in Section 12(k)(iv) below and agree to abide by the decision of the arbitrator.

" **Initiation Payment** " means the Option Phase A Initiation Payment, the Option Phase B Initiation Payment and the Option Phase C Initiation Payment.

" **Intellectual Property** " means patents or patent applications and other intellectual property and proprietary rights of any description including (a) Copyrights, (b) Patent Rights, (c) Trademarks, (d) Trade Secrets, (e) related registrations and applications for registration, (f) moral rights or publicity rights, (g) inventions, discoveries, improvements, modifications, techniques, methodologies, writings, works of authorship, designs or data, whether or not patented, patentable, copyrightable or reduced to practice, including as embodied or disclosed in any: (i) computer source codes (human readable format) and object codes (machine readable format); (ii) specifications; (iii) manufacturing, assembly, test, installation, service and inspection instructions and procedures; (iv) engineering, programming, service and maintenance notes and logs; (v) technical, operating and service and maintenance manuals and data; (vi) hardware reference manuals; and (vii) user documentation, help files or training materials, (h) other protectable intellectual property and proprietary rights of any description, including any know-how, and (i) goodwill related to any of the foregoing.

" Joint Project Intellectual Property " has the meaning set forth in the PadCo-Protiva License and Services Agreement.

“ Joint Project Inventions ” has the meaning set forth in the PadCo-Protiva License and Services Agreement.

“ Joint Project Patents ” has the meaning set forth in the PadCo-Protiva License and Services Agreement.

“ JRC Joint IP Infringement Matter ” has the meaning set forth in the Protiva-Monsanto Services Agreement.

“ JRC Protiva Patent Infringement Matter ” has the meaning set forth in the PadCo-Protiva License and Services Agreement.

“ **Knowledge,** ” including the phrase “ **to the Company’s Knowledge** ,” means with respect to a fact or matter, the knowledge of (i) the most senior employee who is principally responsible for conducting the activities under the Research Plan or overseeing any of the transactions contemplated by the Transaction Agreements, (ii) the person who is a member of the JRC designated by Protiva on the date hereof or the Closing, as applicable or (iii) those persons identified on Exhibit J , in the case of clause (i), (ii), and (iii), following reasonable inquiry; provided that the persons referenced in clauses (i), (ii) and (iii) are current employees or independent contractors of Tekmira, Protiva, the Company or any of their Affiliates. Each of “ **Known** ” or “ **Knowingly** ” has a correlative meaning.

“ **Law** ” means, in each case to the extent applicable, any United States or non-U.S. federal, state, provincial, municipal, or local law, statute, regulation, rule, code, constitution, regulation, rule, notice, court decision, interpretation, agency guidance, order, resolution, stipulation, determination, requirement, edict or ordinance enacted, adopted, issued, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Authority (including those pertaining to electrical, building, zoning, environmental, animal welfare and occupational safety and health requirements) or common law.

“ **Liability** ” means any and all debts, liabilities and obligations of any kind or nature, whether accrued or fixed, absolute or contingent, matured or unmatured, or determined or determinable.

“ **Lien** ” means any mortgage, deed of trust, security interest, pledge, hypothecation, assignment in the nature of a security interest, attachment, encumbrance, lien (statutory, judgment or otherwise), or other security agreement of any kind or nature whatsoever (including any conditional sale or other title retention agreement and any lease in the nature of a security interest).

“ **Material Adverse Effect** ” means any change, event, circumstance, development, occurrence or effect that individually, or taken together with any other change, event, circumstance, development, occurrence or effect is, or would reasonably be expected to have, a materially adverse effect on (i) to the business, assets (including intangible assets), Intellectual Property, liabilities, financial condition, property, or results of operations of the Company or (ii) the ability of the Company, Tekmira or Protiva, as applicable, to consummate the transactions contemplated by this Agreement.

" **Milestone Payments** " means the Option Insect Milestone A Payment, the Option Plant Milestone A Payment, the Option Insect Milestone B Payment, the Option Plant Milestone B Payment, the Option Insect Milestone C Payment, the Option Plant Milestone C Payment, the Option Set-up Milestone Payment and the Option Shipment Milestone Payment.

" **Monsanto Project Intellectual Property** " shall have the meaning given to such term in the Protiva-Monsanto Services Agreement.

" **Option Exercise Price** " means **[***]** , plus (a) any Initiation Payments that have already been paid by Monsanto Canada pursuant to the terms of Section 2(e) , plus (b) any Milestone Payments that have already been paid by Monsanto Canada pursuant to the terms of Section 3(b) , less (c) if Monsanto Canada exercises its option to purchase all outstanding capital stock of the Company pursuant to Section 3(a) , any Indebtedness of the Company or any of its subsidiaries.

" **Option Exercise Price Credits** " means (a) the Upfront Option Payment if already paid by Monsanto Canada pursuant to the terms of S ection 3(b) (ii) , plus (b) any Initiation Payments that have already been paid by Monsanto Canada pursuant to the terms of S ection 2(e) , plus (c) any Milestone Payments that have already been paid by Monsanto Canada pursuant to the terms of S ection 3(b) .

" **Option Insect Milestone A** " shall mean that the JRC has made a determination that the Company has satisfied the Option Insect Phase A Completion Criteria.

" **Option Insect Milestone B** " shall mean that the JRC has made a determination that the Company has satisfied the Option Insect Phase B Completion Criteria.

" **Option Insect Milestone C** " shall mean that the JRC has made a determination that the Company has satisfied the Option Insect Phase C Completion Criteria.

" Option Insect Phase A Completion Criteria " shall mean the criteria outlined in E xhibit B-2(ii) .

" Option Insect Phase B Completion Criteria " shall mean the criteria outlined in E xhibit B-3(ii) .

" Option Insect Phase C Completion Criteria " shall mean the criteria outlined in E xhibit B-4(ii) .

" **Option Notice Period** " means, after the JRC has made a determination in accordance with Section 12(k) that the Company has completed Phase C, the period commencing on the date on which Monsanto Canada has received both (a) the Data Package from Protiva, and (b) an Amended Disclosure Schedule dated no later than the date of delivery of such Data Package, and ending ninety (90) days after the later of the date of delivery of such Data Package or Amended Disclosure Schedule.

" **Option Plant Milestone A** " shall mean that the JRC has made a determination that the Company has satisfied the Option Plant Phase A Completion Criteria.

" **Option Plant Milestone B** " shall mean that the JRC has made a determination that the Company has satisfied the Option Plant Phase B Completion Criteria.

" **Option Plant Milestone C** " shall mean that the JRC has made a determination that the Company has satisfied the Option Plant Phase C Completion Criteria.

" **Option Plant Phase A Completion Criteria** " shall mean the criteria outlined in Exhibit B-2(i).

" **Option Plant Phase B Completion Criteria** " shall mean the criteria outlined in Exhibit B-3(i).

" **Option Plant Phase C Completion Criteria** " shall mean the criteria outlined in Exhibit B-4(i).

" **Option Set-up Completion Criteria** " shall mean the criteria outlined in Exhibit B-5(i).

" **Option Set-up Milestone** " shall mean that the JRC has made a determination that the Company has satisfied the Option Set-up Completion Criteria.

" **Option Shipment Completion Criteria** " shall mean the criteria outlined in Exhibit B-5(ii).

" **Option Shipment Milestone** " shall mean that the JRC has made a determination that the Company has satisfied the Option Shipment Completion Criteria.

" **Order** " means any order, stay, writ, judgment, injunction, decree, determination or award from a court or other Governmental Authority of competent jurisdiction.

" **Patent** " has the meaning in the PadCo-Protiva License and Services Agreement.

" **Patent Rights** " means rights in or licensed access to a Patent.

" **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.

" **Phase A** " shall mean the initial development activities outlined in the Research Plan to be commenced pursuant Section 2(e)(ii).

" **Phase B** " shall mean the activities outlined in the Research Plan to be commenced pursuant Section 2(e)(iii).

" **Phase C** " shall mean the activities outlined in the Research Plan to be commenced pursuant Section 2(e)(iv).

" **Principal Competitor** " means (a) those Persons listed on Exhibit K and, unless otherwise indicated with respect to such Person on Exhibit K, any of their Affiliates, and any entity that acquires all or substantially all of any of the foregoing Persons or all or substantially all of such Person's agricultural division or the agricultural subsidiary of any of the foregoing Persons; and (b) any Person and any of their Affiliates (i) now known, or that emerges in the future, which is engaged in the business of developing, marketing or selling agricultural products (including agricultural chemical products and transgenic plants) for applications in the Agricultural Field and (ii) which is one of the top ten businesses in sales world-wide in developing, marketing or selling agricultural products (including agricultural chemical products and transgenic plants) for applications in the Agricultural Field. Notwithstanding the foregoing, in no event shall Monsanto or any controlled Affiliate thereof be deemed a "Principal Competitor" under this Agreement.

" **Products** " has the meaning in the PadCo-Protiva License and Services Agreement.

" **Protiva Intellectual Property** " has the meaning in the PadCo-Protiva License and Services Agreement.

" **Protiva License** " has the meaning in the PadCo-Protiva License and Services Agreement.

" **Protiva Project Inventions** " has the meaning in the PadCo-Protiva License and Services Agreement.

" **Protiva Project Patents** " has the meaning in the PadCo-Protiva License and Services Agreement.

" **Receiving Party** " means, as applicable, (i) Monsanto, Monsanto Canada and/or their Affiliates to the extent such "Receiving Party" is receiving Confidential Information from a Disclosing Party; (ii) Protiva and/or its Affiliates (other than the Company and any subsidiaries of the Company) to the extent such "Receiving Party" is receiving Confidential Information from a Disclosing Party; or (iii) the Company and/or any subsidiaries of the Company to the extent such "Receiving Party" is receiving Confidential Information from a Disclosing Party.

" **Research Plan** " means the written research plan attached hereto as Exhibit A , which describes the activities to be performed in the course of the Research Program, and subsequent amendments thereto approved by the JRC.

" **Tax** " or " **Taxes** " means any and all taxes, assessments, levies, tariffs, imposts, duties or other charges or impositions in the nature of a tax (together with any and all interest, penalties, additions to tax and additional amounts imposed with respect thereto) imposed by any Governmental Authority, including income, estimated income, gross receipts, profits, business, license, occupation, franchise, capital stock, real or personal property, sales, use, transfer, value added, employment or unemployment, social security, disability, alternative or add-on minimum, customs, excise, stamp, environmental, commercial rent and withholding taxes.

" **Tax Return** " means any return (including any information return), report, statement, declaration, schedule, notice, form, election or other document (including any attachments thereto and amendments thereof) required to be filed with any Governmental Authority with respect to any Tax.

" **Technology Transfer** " means the transfer by Protiva to Monsanto of the specifications, protocols, data and other documentation described in Exhibit B-6 , not provided to Monsanto prior to the Closing Date, for (i) the detection of applied dsRNA molecules and modified dsRNA molecules in biological matrix; (ii) the Manufacture of Products, including scale up engineering; and (iii) any Know-How owned or Controlled by Protiva or any of its Affiliates as of the Closing Date relating to the Research Program or other Protiva Intellectual Property as applied in the Agricultural Field.

" **Technology Transfer Completion Criteria** " shall mean the criteria outlined in Exhibit B-6 .

" **Total Option Consideration** " means the sum of the Option Exercise Price or Early Option Exercise Price or the amount paid pursuant to Section 3(h)(iii), as applicable, and the Commercial Milestone Payment, if any.

" **Trade Secrets** " means confidential ideas and information, trade secrets, inventions, concepts, methods, processes, formulae, reports, data, research and development results, customer lists, mailing lists, business plans and other proprietary information.

" **Trademarks** " means United States, state and foreign trademarks, service marks, logos, trade dress, trade names and Internet domain names, whether registered or unregistered, and pending applications to register the foregoing.

" **Transaction Agreements** " shall have the meaning given to such term in the PadCo-Protiva License and Services Agreement.

" **Transactions** " means each of the transactions contemplated by this Agreement and each of the other Transaction Agreements.

" **United States** " means the United States of America and its territories and possessions.

" **Upfront Option Completion Criteria** " shall mean the criteria outlined in E xhibit B-1 .

" **Upfront Option Trigger** " shall mean that the JRC has made a determination that the Company has satisfied the Upfront Option Completion Criteria.

As used in this Agreement, the following terms shall have the meanings ascribed thereto in the respective Sections of this Agreement set forth opposite each such term below:

Term	Section
Acquisition Proposal	7(g)
Acquisition Transaction	7(g)
Agreement	Preamble

Term	Section
Amended Disclosure Schedule	7(h)
Call Option	3(a)
Change of Control Exercise Payment	3(h)(iii)
Closing	3(d)
Closing Date	3(d)
Closing Payment	3(c)(i)(A)
Company	Preamble
Company Cure Period	9(b)
Company Indemnified Parties	11(b)(ii) of Appendix A
Company Shares	7(k)
Disclosure Schedule	7(h)
Dispute Negotiation Period	12(k)(i)
Early Option Exercise Price Certificate	3(c)(ii)(A)
Early Exercise Closing Payment	3(c)(ii)(A)
Effective Date	Preamble
Environmental Laws	4(w) of Appendix A
Exercise Date	3(c)
Exercise Notice	3(c)
FCPA	4(i) of Appendix A
Financial Statements	4(k) of Appendix A
Fundamental Representations	11(a) of Appendix A
Hazardous Substance	4(w) of Appendix A
Holdback Amount	3(c)(i)(B)
Indemnified Party	11(d)(i) of Appendix A
Indemnifying Party	11(d)(i) of Appendix A
Joint Patent Prosecution Matters	Schedule 12(k)
JRC	12(k)
JRC Party	12(k)
JRC Parties	12(k)
Milestone Achievement Notice	3(b)(i)
Monsanto Canada	Preamble
Monsanto Canada Cure Period	9(c)
Monsanto Canada Director	7(k)
Monsanto Indemnified Parties	11(b) of Appendix A
Monsanto	Introduction

Term	Section
Option Exercise Price Certificate	3(c)(i)(A)
Option Insect Milestone A Payment	3(b)(vi)
Option Insect Milestone B Payment	3(b)(viii)
Option Insect Milestone C Payment	3(b)(x)
Option Phase A Initiation Payment	2(e)(ii)
Option Phase B Initiation Payment	2(e)(iii)
Option Phase C Initiation Payment	2(e)(iv)
Option Plant Milestone A Payment	3(b)(v)
Option Plant Milestone B Payment	3(b)(vii)
Option Plant Milestone C Payment	3(b)(ix)
Option Set-up Milestone Payment	3(b)(iii)
Option Shipment Milestone Payment	3(b)(iv)
Organizational Documents	4(v) of Appendix A
PadCo-Protiva License and Services Agreement	Introduction
PCBs	4(w) of Appendix A
Permits	4(h)(ii) of Appendix A
Permitted Recipients	12(l)
Phase Completion Notice	2(e)(i)
Phase Election Period	2(e)(i)
Project Patent Response Deadline	Schedule 12(k)
Proposed Joint Patent Abandonment	Schedule 12(k)
Proposed Project Patent Abandonment	Schedule 12(k)
Prosecution Matters Resolution Period	Schedule 12(k)
Protiva	Preamble
Protiva Monsanto Services Agreement	Introduction
Protiva Patent Prosecution Matters	Schedule 12(k)
Protiva Project Compound	12(l)
Proxy Shares	7(l)
Regulatory Filings	4(h)(iii) of Appendix A
Research Program	Introduction
Substantive Action	7(o)
Tax Representations	11(a) of Appendix A
Tekmira	Preamble
Third Party Claim	11(d)(i) of Appendix A
Threshold	11(c)(i) of Appendix A
UK Bribery Act	4(i) of Appendix A

Term	Section
Upfront Option Payment	3(b)(ii)

2. Conduct of Research Program .

(a) Rights and Responsibilities. During the Call Period, the Company shall be responsible for activities to be performed in the course of the Research Program. During the Call Period, the Company shall conduct such activities at its own cost and expense. For clarity, subject to Monsanto's performance of its obligations herein, the Company shall be responsible for all payments due to Protiva under the PadCo-Protiva License and Services Agreement.

(b) PadCo-Protiva License and Services Agreement . The Company has engaged Protiva to perform certain activities described in the Research Plan pursuant to that certain PadCo-Protiva License and Services Agreement attached hereto as Exhibit C .

(c) Protiva-Monsanto Services Agreement . Protiva has engaged Monsanto to perform certain activities described in the Research Plan pursuant to that certain Protiva-Monsanto Services Agreement attached hereto as Exhibit D .

(d) Diligence . During the Call Period, Protiva and the Company shall use reasonable best efforts to (x) undertake the activities set forth in the Research Plan in accordance with prevailing scientific standards and in compliance with all applicable Laws, (y) pursue the achievement of the Completion Criteria, and (z) comply with all of its obligations under this Agreement and the other Transaction Agreements.

(e) Initiation of Phase A, Phase B and Phase C .

(i) Promptly but no later than five (5) Business Days following the date on which, each of Phase A or Phase B has been completed, the JRC shall have prepared and delivered to Monsanto Canada a written notice in substantially the form attached hereto as Exhibit I (a " **Phase Completion Notice** "), notifying Monsanto Canada that the JRC has made a determination that the Company has completed Phase A or Phase B and that Monsanto Canada has thirty (30) days after receipt of such Phase Completion Notice to elect to initiate the subsequent phase (the " **Phase Election Period** ").

(ii) No later than five (5) Business Days following the Effective Date, Monsanto Canada shall pay to Protiva **[***]** (the " **Option Phase A Initiation Payment** ") by electronic wire as arranged with Protiva to initiate Phase A of the Research Program. The Option Phase A Initiation Payment shall be deemed to be a partial prepayment of the amounts due upon exercise of the Call Option.

(iii) If Monsanto Canada elects during the applicable Phase Election Period to initiate Phase B of the Research Program, Monsanto Canada shall pay to Protiva **[***]** (the " **Option Phase B Initiation Payment** ") by electronic wire to Protiva within 10 Business Days of such election. The Option Phase B Initiation Payment shall be deemed to be a partial prepayment of the amounts due upon exercise of the Call Option. For the avoidance of doubt, Phase B cannot be initiated without Monsanto Canada's election.

(iv) If Monsanto Canada elects during the applicable Phase Election Period to initiate Phase C of the Research Program, Monsanto Canada shall pay to Protiva **[***]** (the " **Option Phase C Initiation Payment** ") by electronic wire to Protiva within 10 Business Days of such election. The Option Phase C Initiation Payment shall be deemed to be a partial prepayment of the amounts due upon exercise of the Call Option. For the avoidance of doubt, Phase C cannot be initiated without Monsanto Canada's election.

3. Call Option .

(a) Option Grant . Protiva hereby grants Monsanto Canada the option (the " **Call Option** ") during the Call Period to require Protiva to sell, convey and transfer to Monsanto Canada all outstanding capital stock of the Company in consideration for the payment by Monsanto Canada to Protiva of the amounts set forth in this Section 3. At such time as Monsanto Canada gives Protiva notice of its exercise of the Call Option in accordance with the provisions hereof, Monsanto Canada may by notice in writing included in its notice of exercise of the Call Option instead require Protiva to sell, convey and assign to Monsanto Canada, or cause the Company to sell, convey and assign to Monsanto Canada, all of the Company's right, title and interest in, to and under the License and Services Agreement, the Protiva License, the Company Owned Intellectual Property and the other Company Licensed Intellectual Property, if any, also in consideration for the payment by Monsanto Canada to Protiva of the amounts set forth in this Section 3 (the " **Notice of Assignment** "). At any time following receipt of such Notice of Assignment, Protiva shall have the right to reorganize the Company, including by merging the Company with and into Protiva, if Protiva obtains Monsanto's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. In no event shall any such reorganization adversely affect the right, title and interest in, to and under the Protiva-PadCo License and Services Agreement, the Protiva License, the Company Owned Intellectual Property and the other Company Licensed Intellectual Property, if any, sold, conveyed and assigned to Monsanto Canada pursuant to this Section 3(a).

(b) Upfront Option Payment and Milestone Payments . As consideration for the grant of the Call Option, and as further partial prepayments for the exercise thereof:

(i) Promptly but no later than five Business Days following the date on which each of the Upfront Option Trigger, Option Set-up Milestone, Option Shipment Milestone, Option Plant Milestone A, Option Insect Milestone A, Option Plant Milestone B, Option Insect Milestone B, Option Plant Milestone C, or Option Insect Milestone C has been achieved, the JRC shall prepare and deliver to Monsanto Canada a written notice in substantially the form attached hereto as Exhibit E (a " **Milestone Achievement Notice** "), notifying Monsanto Canada of each such achievement and requesting that Monsanto Canada pay the Upfront Option Payment, Option Set-up Milestone Payment, Option Shipment Milestone Payment, Option Plant Milestone A Payment, Option Insect Milestone A Payment, Option Plant Milestone B Payment, Option Insect Milestone B Payment, Option Plant Milestone C Payment, or Option Insect Milestone C Payment, as applicable.

(ii) Monsanto Canada shall pay to Protiva, within five (5) Business Days after receipt of a Milestone Achievement Notice with respect to the Upfront Option Trigger, **[***]** (the " **Upfront Option Payment** ") by electronic wire as arranged with Protiva.

(iii) Monsanto Canada shall pay to Protiva, within thirty (30) days after receipt of a Milestone Achievement Notice with respect to the Option Set-up Milestone, **[***]** (the " **Option Set-up Milestone Payment** ") by electronic wire as arranged with Provita.

(iv) Monsanto Canada shall pay to Protiva, within thirty (30) days after receipt of a Milestone Achievement Notice with respect to the Option Shipment Milestone, **[***]** (the " **Option Shipment Milestone Payment** ") by electronic wire as arranged with Protiva.

(v) Monsanto Canada shall pay to Protiva, within thirty (30) days after receipt of a Milestone Achievement Notice with respect to the Option Plant Milestone A, **[***]** (the " **Option Plant Milestone A Payment** ") by electronic wire as arranged with Protiva.

(vi) Monsanto Canada shall pay to Protiva, within thirty (30) days after receipt of a Milestone Achievement Notice with respect to the Option Insect Milestone A, **[***]** (the " **Option Insect Milestone A Payment** ") by electronic wire as arranged with Protiva.

(vii) Monsanto Canada shall pay to Protiva, within thirty (30) days after receipt of a Milestone Achievement Notice with respect to the Option Plant Milestone B, **[***]** (the " **Option Plant Milestone B Payment** ") by electronic wire as arranged with Protiva.

(viii) Monsanto Canada shall pay to Protiva, within thirty (30) days after receipt of a Milestone Achievement Notice with respect to the Option Insect Milestone B, **[***]** (the " **Option Insect Milestone B Payment** ") by electronic wire as arranged with Protiva.

(ix) Monsanto Canada shall pay to Protiva, within thirty (30) days after receipt of a Milestone Achievement Notice with respect to the Option Plant Milestone C, **[***]** (the " **Option Plant Milestone C Payment** ") by electronic wire as arranged with Protiva.

(x) Monsanto Canada shall pay to Protiva, within thirty (30) days after receipt of a Milestone Achievement Notice with respect to the Option Insect Milestone C, **[***]** (the " **Option Insect Milestone C Payment** ") by electronic wire as arranged with Protiva.

(c) Option Exercise . Monsanto Canada may exercise the Call Option in a writing (the " **Exercise Notice** ") delivered to Protiva at any time within the Call Period. If Monsanto Canada does not deliver the Exercise Notice prior to the valid expiration of the Call Period, the Call Option shall terminate and be of no further force and effect upon the expiration of the Call Period; provided, that, if Protiva or the Company is in material breach of any of its obligations under this Agreement, the Call Option shall not so terminate until thirty (30) days following the earlier of (i) the resolution of any dispute brought by Monsanto alleging such breach or (ii) the date on which such breach of its obligations has been cured. The date on which the Exercise Notice is delivered is referred to in this Agreement as the " **Exercise Date** ."

(i) Exercise of Call Option Following Completion of Phase C . If Monsanto Canada exercises the Call Option following the completion of Phase C, Monsanto Canada shall pay to Protiva the Option Exercise Price in the manner set forth below:

(A) On the tenth (10th) Business Day prior to the Closing, Protiva shall prepare and deliver to Monsanto Canada a certificate (the " **Option Exercise Price Certificate** ") that sets forth the Option Exercise Price less the Option Exercise Price Credits (the " **Closing Payment** ").

(B) Notwithstanding the foregoing, a portion of the Closing Payment equal to **[***]** (the " **Holdback Amount** "), shall not be paid to Protiva at the Closing, but shall instead be held by Monsanto Canada on behalf of Protiva and distributed by Monsanto Canada to Protiva in accordance with S ection 3(c)(i)(D) upon completion of the Technology Transfer in accordance with the Technology Transfer Completion Criteria.

(C) At the Closing, Monsanto Canada shall pay to Protiva by electronic wire transfer as arranged with Protiva (i) the Closing Payment less (ii) the Holdback Amount .

(D) The Holdback Amount shall be due and payable promptly but no later than five (5) Business Days following the later of (1) the Closing or (2) as determined by the JRC, completion of the Technology Transfer to Monsanto Canada in accordance with the Technology Transfer Completion Criteria. Such Holdback shall serve as partial security for the completion of such Technology Transfer.

(ii) Early Exercise of Call Option . If Monsanto Canada exercises the Call Option prior to the completion of Phase C, Monsanto Canada shall pay to Protiva the Early Option Exercise Price in the manner set forth below:

(A) On the tenth (10th) Business Day prior to the Closing, Protiva shall prepare and deliver to Monsanto Canada a certificate (the " **Early Option Exercise Price Certificate** ") that sets forth the Early Option Exercise Price less the Early Option Exercise Price Credits (the " **Early Exercise Closing Payment** ").

(B) Notwithstanding the foregoing, a portion of the Early Exercise Closing Payment equal to the Holdback Amount, shall not be paid to Protiva at the Closing, but shall instead be held by Monsanto Canada on behalf of Protiva and distributed by Monsanto Canada to Protiva in accordance with S ection 3(c)(ii)(D) upon completion of the Technology Transfer in accordance with the Technology Transfer Completion Criteria.

(C) At the Closing, Monsanto Canada shall pay to Protiva by electronic wire transfer as arranged with Protiva (i) the Early Exercise Closing Payment less (ii) the Holdback Amount; provided however, if Monsanto Canada exercises the Call Option within ninety (90) days of a Change of Control of Protiva or Tekmira with a Principal Competitor, Monsanto Canada shall only be required to pay to Protiva by electronic wire transfer as arranged with Protiva the applicable Change of Control Exercise Payment .

(D) The Holdback Amount shall be due and payable promptly but no later than five (5) Business Days following the later of (1) the Closing or (2) as determined by the JRC, completion of the Technology Transfer to Monsanto Canada in accordance with the Technology Transfer Completion Criteria. Such Holdback shall serve as partial security for the completion of such Technology Transfer.

(d) Closing . The closing of the transactions contemplated by the exercise of the Call Option (the " **Closing** ") shall take place at the offices of Bryan Cave LLP, 211 North Broadway, Suite 3600, St. Louis, Missouri 63119, at 10:00 a.m., Central time, on the fifth (5th) calendar day after the satisfaction or waiver of the last of the conditions set forth in Section 8 to be satisfied or waived in accordance with the terms of this Agreement following the exercise of the Call Option (other than those conditions which, by their terms, are to be satisfied at the Closing), or at such other date, time and location as Monsanto Canada and Protiva may agree in writing (the " **Closing Date** ").

(e) Payment at Closing . At the Closing, (i) Monsanto Canada shall pay the amounts set forth in Section 3(c)(i)(C) or Section 3(c)(ii)(C) or the applicable Change of Control Exercise Payment, as applicable, and (ii) Protiva, Tekmira and the Company shall execute, acknowledge and deliver such assignments, transfers, consents, assumptions and other documents and instruments and take such other commercially reasonable actions as may reasonably be requested to assign, convey or transfer to or vest in Monsanto Canada (x) all of the Company's right, title, and interest in, to, and under the PadCo-Protiva License and Services Agreement, the Protiva License, the Company Owned Intellectual Property and the other Company Licensed Intellectual Property, if any, from the Company or (y) all of Protiva's right, title and interest in all of the outstanding capital stock of the Company. If the outstanding capital stock of the Company is represented by certificates, Protiva shall deliver to Monsanto Canada such certificates, endorsed or accompanied by appropriate transfer power duly executed. For the avoidance of doubt, subject to Section 3(h), the sale and assignment of all of the Company's right, title, and interest in, to, and under the Protiva License or the sale of all of Protiva's right, title and interest in the outstanding capital stock of the Company hereunder shall not extinguish the obligation of the Company to pay the Commercial Milestone Payment to Protiva in accordance with the PadCo-Protiva License and Services Agreement.

(f) Right to Setoff . From and after the Closing, Monsanto Canada shall have the right, but not the obligation, exercisable by delivery of written notice to Protiva by Monsanto Canada, to set off against and reduce the amount of the Diligence Buyout Payment or the Commercial Milestone Payment by an amount equal to **[***]** of any and all royalties, license fees and other consideration payable under licenses obtained from Third Parties deemed reasonably necessary or appropriate by Monsanto Canada in its discretion to avoid any claims that any Compound, Formulation or Product infringes the intellectual property rights of such Third Parties directed to lipid nano particles or the use or manufacture of lipid nano particles; provided, however, that in no event shall such set off reduce the Commercial Milestone Payment or the Diligence Buyout Payment by more than one-third of the amount of such payment (i.e., if a Commercial Milestone Payment is made and there has been no Change of Control of Protiva or Tekmira, then in no event shall Protiva receive less than **[***]** as a Commercial Milestone Payment, or if a Commercial Milestone Payment is made and there has been a Change of Control of Protiva or Tekmira, then in no event shall Protiva receive less than **[***]**).

(g) Withholding Rights and Tax Treatment of Transactions . If Monsanto Canada is required by any Governmental Authority to deduct and withhold from the consideration otherwise payable pursuant to this Agreement to Protiva or any assignee such amounts as it is required to deduct and withhold with respect to the making of such payment under the Code, or any applicable provision of state, local or foreign Tax Law, Monsanto Canada shall gross up the payments owed to Protiva so that Protiva receives net of withholding taxes the amount Protiva would otherwise have received but for such withholding. The parties hereto agree to make commercially reasonable efforts to inform one another of potential exceptions to withholding obligations. To the extent that Protiva, its assignees, or successors are able to obtain a refund of such Tax withheld by Monsanto Canada, Protiva, its assignees, or successors agree to make a good-faith effort to obtain such refund and remit such refund to Monsanto, its assignees, or successors within thirty days of receipt of such refund. The parties will use their commercially reasonable efforts to mitigate any withholding Tax on any payments hereunder, including providing any appropriate certification or other documentation.

(h) Change of Control of Protiva or Tekmira . In the event of a Change of Control of Protiva or Tekmira, Monsanto Canada shall have right to take any of the following actions in its sole discretion:

(i) Monsanto Canada has the right to continue to operate under the terms of the Transaction Agreements. In the event that following a Change of Control of Protiva or Tekmira Monsanto Canada determines to continue to operate under the terms of the Transaction Agreements, Tekmira and Protiva agree to implement, within ninety (90) days of the Change of Control, information barriers and firewalls reasonably satisfactory to Monsanto Canada to separate and isolate all Confidential Information and information regarding the Transactions from the acquirer.

(ii) Monsanto Canada has the right to terminate this Agreement in accordance with Section 9(d) without payment to Protiva or Tekmira of any penalty or other amount.

(iii) Monsanto Canada has the right to exercise the Call Option; provided however, (1) if Monsanto Canada exercises the Call Option within ninety (90) days of a Change of Control of Protiva or Tekmira with a Principal Competitor and prior to completion of Phase A, Monsanto Canada shall only be required to pay to Protiva (x) **[***]** less (y) the Holdback Amount, (2) if Monsanto Canada exercises the Call Option within ninety (90) days of a Change of Control of Protiva or Tekmira with a Principal Competitor and prior to completion of Phase B, but after completion of Phase A, Monsanto Canada shall only be required to pay to Protiva (x) **[***]** less (y) the Holdback Amount, and (3) if Monsanto Canada exercises the Call Option within ninety (90) days of a Change of Control of Protiva or Tekmira with a Principal Competitor and prior to completion of Phase C, but after completion of Phase A and Phase B, Monsanto Canada shall only be required to pay to (x) **[***]** less (y) the Holdback Amount (each a " **Change of Control Exercise Payment** ") . The Holdback Amount shall be due and payable promptly but no later than five (5) Business Days following the later of (1) the Closing or (2) as determined by the JRC, completion of the Technology Transfer to Monsanto Canada in accordance with the Technology Transfer Completion Criteria. Such Holdback shall serve as partial security for the completion of such Technology Transfer.

In the event of a Change of Control of Protiva or Tekmira with a Principal Competitor, the Diligence Buyout Payment and the Commercial Milestone Payment under the PadCo-Protiva License and Services Agreement (if and when either is paid or payable under the terms of such agreement) shall be reduced by **[***]** . Such amounts may be further reduced in accordance with Section 3(f) above.

4. Representations and Warranties Regarding the Company . Each of Protiva and the Company represents and warrants to Monsanto Canada that, except as set forth on the Disclosure Schedule or the Amended Disclosure Schedule, as applicable, which exceptions shall be deemed to be part of the representations and warranties made hereunder, the representations and warranties set forth in Section 4 of Appendix A to this Agreement are true and complete as of each of the Effective Date and the Closing Date, except as otherwise specifically indicated in the Disclosure Schedule or the Amended Disclosure Schedules, as applicable.

5. Representations and Warranties Regarding Protiva and Tekmira . Each of Protiva and Tekmira hereby severally represents and warrants to Monsanto Canada that the representations and warranties set forth in Section 5 of Appendix A to this Agreement are true and complete as of each of the Effective Date and the Closing Date.

6. Representations and Warranties of Monsanto Canada . Monsanto Canada hereby represents and warrants to the Company and Protiva that the representations and warranties set forth in Section 6 of Appendix A to this Agreement are true and complete as of each of the Effective Date and the Closing Date.

7. Covenants and Restrictions .

(a) Acknowledgement of Transfer Restriction . During the Call Period, each of Protiva and the Company acknowledges and agrees that the Protiva License may not be transferred or sublicensed to any Person other than Monsanto Canada.

(b) No Assignment . During the Call Period, the Company shall not assign or transfer or sublicense any rights in the PadCo-Protiva License and Services Agreement and the Company Owned Intellectual Property and any other Company Licensed Intellectual Property, if any, to any Person other than Monsanto Canada.

(c) Due Diligence Investigation .

(i) During the Call Period, upon Monsanto Canada's request, provided that such requests are no more frequent than once (1) per calendar year, or at any other time when Monsanto Canada has a good faith intention to exercise the Call Option, Protiva will furnish to Monsanto Canada all information reasonably requested with respect to the affairs and businesses of Protiva to the extent it relates to the Protiva Intellectual Property and the Company, including the books and records of the Company and a reasonably detailed report on the current and planned development of the Company's product candidates, including timelines and budgets, patents, patent applications, and other Intellectual Property, field studies, interactions with regulatory authorities, manufacturing activities, and publication plans; provided that, all reasonable third party out of pocket expenses (other than accounting fees and attorneys fees) incurred by Protiva in providing such information to Monsanto Canada shall be paid by Monsanto Canada. To the extent any such report contains a significant change in activities and timelines from the report previously furnished to Monsanto Canada, such report will also include explanations for all of such changes. Representatives of the Company and Protiva shall meet with Monsanto Canada, upon Monsanto Canada's reasonable request, regularly during each year at the Company's facilities at mutually agreeable times to discuss the matters set forth in this subsection.

(ii) During the Call Period, other than in connection with the matters specified in clause (i) above, Protiva shall permit Monsanto Canada at Monsanto Canada's expense, to visit and inspect the Company's properties no more than two (2) times per year, or at any other time when Monsanto Canada has a good faith intention to exercise the Call Option, upon at least five (5) Business Days' advance written notice, to examine the Company's books of account and records and discuss the Company's affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by Monsanto Canada.

(d) Prior to Closing . During the period beginning on the Effective Date and ending on the (x) expiration of the Call Period if Monsanto Canada does not exercise the Call Option or (y) Closing if Monsanto Canada exercises the Call Option, and without limiting the covenants set forth in S ection 2 with respect to the conduct of the Research Program, without the approval of the Board, including the approval of the Representatives in any event, the Company shall use commercially reasonable efforts to: (A) operate the Company Business in accordance with the Research Plan, (B) preserve intact the business organization of the Company, (C) preserve the current relationships of the Company with customers, suppliers and other Persons with which the Company has significant business relations, and (D) comply with all of the material covenants set forth in the PadCo-Protiva License and Services Agreement. In addition, during such period the Company shall not and Protiva shall cause the Company to not, without the prior written consent of Monsanto Canada, directly or indirectly do, or propose to do, any of the following:

(i) waive compliance by Protiva with the PadCo-Protiva License and Services Agreement or the Protiva-Monsanto Services Agreement;

(ii) own any stock or other securities of any subsidiary or other corporation, partnership, or other entity;

(iii) create any encumbrance on any material assets or properties of the Company (whether tangible or intangible) or the capital stock of the Company;

(iv) except as approved by the Board or as contemplated by this Agreement, incur any Indebtedness or guarantee, directly or indirectly, any Indebtedness;

(v) issue, transfer, deliver, sell, authorize, pledge or otherwise encumber or propose the issuance of any units, equity interests or other interests, or create, or authorize the creation of any additional class or series of units, equity interests or other interests;

(vi) increase the authorized number of any class or series of units, equity interests or other interests;

(vii) except as contemplated by this Agreement, distribute any of the Company's material assets in the form of a dividend;

(viii) except for the Transaction Agreements, enter into any transaction or agreement with any Affiliate;

(ix) engage in any business other than the Company Business;

(x) enter into any transaction or agreement with any third party;

(xi) sell, assign, transfer, lease, license, abandon, permit to lapse or otherwise dispose of, or agree to sell, assign, transfer, lease, license, abandon, permit to lapse or otherwise dispose of, any of the material tangible assets of the Company, any material proprietary rights or technology, except as approved by the Board;

(xii) sell, assign, transfer, lease, sublicense, abandon, permit to lapse or otherwise dispose of, or agree to sell, assign, transfer, lease, sublicense, abandon, permit to lapse or otherwise dispose of, any of the Company's rights in, to, or under the Protiva License or any of Protiva's rights in the capital stock of the Company;

(xiii) acquire (by merger, consolidation or combination, or acquisition of stock or assets) any corporation, partnership or other business organization or division or material portion of the assets thereof, except acquisitions of inventory and supplies in the ordinary course of business consistent with past practice;

(xiv) make any change in any method of financial accounting or financial accounting practice used by the Company, other than such changes as are required by GAAP;

(xv) except in accordance with generally accepted accounting principles in Canada, consistently applied, make any change to (1) the Company's normal month to month accounting practices and policies, including those relating to the collection of accounts receivable, the payment of accounts payable or other similar Liabilities of the Company or (2) the application of such policies;

(xvi) (1) hire any employee, (2) enter into or amend any employment, deferred compensation, severance or similar contract, (3) incur any obligation to compensate any member of the Board or officer of the Company, (4) pay or make provision for the payment of any bonus, profit sharing, deferred compensation, pension, retirement, severance or other similar payment or arrangement to any employee, or any member of the Board, officer of the Company or any of its Affiliates, (5) adopt any employee benefit plan, or (6) make any loans to any officer, member of the Board, Affiliate, agent, representative or consultant of the Company (other than advances to cover business expenses in the ordinary course of business) or make any change in any existing borrowing or lending arrangement for or on behalf of any of such Persons;

(xvii) amend the Company's organizational documents;

(xviii) make any loans, advances or capital contributions to, or investments in, any other Person, other than advances to cover business expenses in the ordinary course of business;

(xix) liquidate, dissolve or effect a recapitalization or reorganization in any form of transaction;

(xx) (1) declare or pay any dividends on, or make any other distributions (whether in cash, stock or property) in respect of, any securities, (2) split, combine or reclassify any of its securities, (3) effect a recapitalization, (4) issue or authorize the issuance of any other securities in respect of, in lieu of or in substitution for units, equity interests or similar interests, or (5) except as contemplated by this Agreement, repurchase or otherwise acquire or offer to redeem or otherwise acquire, directly or indirectly, any units, equity interests or similar interests;

(xxi) create, incur, assume, suffer to exist or otherwise be liable with respect to any debt other than on terms that allow for prepayment at any time;

(xxii) commence, settle, or offer or propose to settle, any (1) material action, or (2) action that relates to the transactions contemplated by this Agreement;

(xxiii) enter into, or allow any Affiliate to enter into any agreement, license or other similar arrangement that restricts the Company's performance of its obligations under the Transaction Agreements; or

(xxiv) authorize, commit, enter into or offer to enter into, any contract or agreement to take or cause to be taken any of the actions prohibited by this Section 7(d).

(e) Payment of Taxes, Etc. The Company shall, and Protiva shall cause the Company and each of its subsidiaries to, and the Company shall cause each of its subsidiaries to: (i) timely file all required Tax Returns as they become due (taking all timely filed proper extension requests into account); (ii) ensure that all such Tax Returns are true, correct and complete in all material respects; and (iii) timely pay and discharge, as they become due and payable, all Taxes (other than Taxes contested in good faith by the Company or its subsidiaries in appropriate proceedings), assessments and other governmental charges or levies imposed upon the Company or its subsidiaries, their income, or any property of the Company or its subsidiaries as well as all claims of any kind (including claims for labor, materials and supplies) that, if unpaid, may by law become a Lien or charge upon the properties of the Company or its subsidiaries.

(f) Material Contracts. Protiva shall cause the Company not to and the Company shall not enter into, or extend, any material contract or commitment during the Call Period to the extent that the exercise of the Call Option or the consummation of the Closing could require the consent of the counterparty, result in a breach or violation of such contract, or otherwise require the payment of any fees or expenses in connection therewith, or give the other party the right to accelerate any obligations of the Company or such subsidiary thereunder or to cause the termination of such contract.

(g) No Shop . Until the Call Period has expired without the Call Option having been exercised, or this Agreement has been terminated in accordance with its terms: (i) neither the Company nor Protiva will, nor will the Company or Protiva authorize or permit any of their respective officers, directors, Affiliates or employees, or any investment banker, attorney or other advisor or representative retained by them to directly or indirectly, (A) solicit, initiate or induce the making, submission or announcement of any Acquisition Proposal, (B) participate in any discussions or negotiations regarding, or furnish to any Person any "non-public" information with respect to, or take any other action to facilitate any inquiries or the making of any proposal that constitutes, or may reasonably be expected to lead to, any Acquisition Proposal, (C) engage in discussions with any Person with respect to an Acquisition Proposal, except as to disclose the existence of these provisions, including in response to any initial unsolicited expression of an Acquisition Proposal, (D) endorse or recommend any Acquisition Proposal, or (E) enter into any letter of intent or document or any contract, agreement or commitment contemplating or otherwise relating to any Acquisition Proposal; and (ii) the Company and Protiva will promptly notify Monsanto Canada of the receipt after the Effective Date of any proposal relating to an Acquisition Proposal or of any request for information relating to the Company or for access to the properties, books or records of the Company by any Person who has informed the Company or Protiva that such Person is considering making, or has made, an Acquisition Proposal, and the Company and Protiva will promptly provide Monsanto Canada with a summary of any documents received relating to an Acquisition Proposal and will keep Monsanto Canada informed regarding the status and details of any such Acquisition Proposal. " **Acquisition Proposal** " means any offer or proposal relating to any Acquisition Transaction. " **Acquisition Transaction** " means (1) any transaction or series of related transactions, other than the transactions contemplated by this Agreement, involving the purchase of all or a majority of the units or equity interests or assets of the Company or the purchase, acquisition, or sublicense of any right, title or interest of the Company in, to, or under the PadCo-Protiva License and Services Agreement, (2) any agreement to enter into a business combination with the Company, and (3) any agreement made, other than in the ordinary course of business, with regard to the Protiva Intellectual Property that would result in the transfer of the Protiva License from the Company to a third Person. For the avoidance of doubt, (x) an offer or proposal relating to purchase or sale of Protiva or Tekmira (including by sale of equity, merger, asset transaction or other business combination) shall not be an Acquisition Proposal or (y) the purchase or sale of Protiva or Tekmira (including by sale of equity, merger, asset transaction or other business combination) shall not be an Acquisition Transaction.

(h) Disclosure Schedule and Supplement . Attached hereto at Exhibit F is a schedule of disclosures and exceptions to the representations and warranties made by the Company and Protiva in S ection 4 and Section 5 hereof as of the Effective Date (the " **Disclosure Schedule** "). (i) Contemporaneously with the delivery of any Data Package, and (ii) as soon as reasonably practicable, and in any event no later than ten (10) Business Days following delivery to the Company by Monsanto Canada from time to time of a request in writing for Amended Disclosure Schedules at any time when Monsanto Canada has a good faith intention to exercise the Call Option, Protiva and the Company shall prepare and deliver to Monsanto Canada an updated schedule of disclosures and exceptions to the representations and warranties of the Company and Protiva contained in Section 4 and Section 5 hereof (the " **Amended Disclosure Schedule** "), as if such representations and warranties were made as of the date of such Amended Disclosure Schedule, except to the extent any such representations and warranties refer expressly to an earlier date. Protiva shall deliver the Amended Disclosure Schedule to Monsanto Canada (i) simultaneously with the delivery of a Data Package and (ii) as soon as reasonably practicable, and in any event no later than ten (10) Business Days following delivery to the Company by Monsanto Canada from time to time of a request in writing for Amended Disclosure Schedules at any time when Monsanto Canada has a good faith intention to exercise the Call Option. For the avoidance of doubt, in the Amended Disclosure Schedule, Protiva may schedule disclosures and exceptions to any representation and warranty made herein regardless of whether Protiva or the Company has taken exception to such representation and warranty in this Agreement as of the Effective Date so long as the Amended Disclosure Schedule refer only to disclosures of actual, specific facts or events in existence on the date of such Amended Disclosure Schedule that have occurred or been discovered since the Effective Date. Notwithstanding the foregoing, no disclosure of a fact or event on the Amended Disclosure Schedule shall be deemed to cure any failure to disclose such fact or event on any previously delivered Disclosure Schedule (or Amended Disclosure Schedule, if any), or otherwise amend any previously delivered Disclosure Schedule (or Amended Disclosure Schedule, if any); provided, however, the exceptions set forth on the Amended Disclosure Schedule shall be deemed to be part of the representations and warranties made as of such date and any item disclosed or otherwise set forth on the Disclosure Schedule or Amended Disclosure Schedule shall qualify such representations and warranties disclosed against in such schedules.

(i) Third Party Consents and Regulatory Approvals . Upon exercise of the Call Option, the parties hereto shall cooperate with each other and use reasonable best efforts to promptly achieve the closing conditions set forth in S ection 8 , including to (i) prepare and file all necessary documentation, to effect all applications, notices, petitions and filings as soon as reasonably practicable, to obtain as promptly as reasonably practicable all permits, consents, approvals, authorizations and clearances, which are necessary or advisable to consummate the Closing; (ii) defend any lawsuits or other legal proceedings, whether judicial or administrative, challenging this Agreement or the consummation of the transactions contemplated by this Agreement; and (iii) execute and deliver any additional instruments reasonably necessary to consummate the transactions contemplated by this Agreement.

(j) Use of Proceeds . The Company will use the Initiation Payments in furtherance of performing the Research Plan and its other obligations under the Transaction Agreements and not for any other purpose.

(k) Monsanto Canada Director . During the Option Period, Protiva hereby agrees to vote, or cause to be voted, all the shares of capital stock of the Company now owned or which may hereafter be acquired by Protiva (the " **Company Shares** ") in whatever manner as shall be necessary to ensure that at each annual or special meeting of stockholders of the Company or pursuant to any written consent of the stockholders of the Company (i) the individual designated by Monsanto Canada (the " **Monsanto Canada Director** ") be elected to, and remain a member of, the Board, (ii) the Monsanto Canada Director is not removed from the Board (other than for cause) unless approved by Monsanto Canada, (iii) any vacancy created by the death, resignation, removal or otherwise of a Monsanto Canada Director be filled by an individual designated by Monsanto Canada, (iv) upon the request of Monsanto Canada, the Monsanto Canada Director be removed from the Board and (v) in the absence of a designation by Monsanto Canada of a Monsanto Canada Director, to retain one vacant seat on the Board until such time that Monsanto Canada designates a Monsanto Canada Director and to promptly elect such Monsanto Canada Director to the Board after such designation.

(l) Grant of Proxy . Protiva hereby appoints Monsanto Canada as the true and lawful attorney in fact, agent and proxy of Protiva to (i) represent Protiva, solely with respect to **[***]** of the Company Shares held by Protiva (the " **Proxy Shares** "), at any meeting of the stockholders of the Company, and at any postponements and adjournments of such meeting, (ii) execute on behalf of Protiva any written consent of the stockholders of the Company with respect to the Proxy Shares, and (iii) vote (or execute a written consent on behalf of) the Proxy Shares standing on the books of the Company in the name of Protiva. Protiva affirms that this irrevocable proxy is coupled with an interest and may not be revoked until this Agreement terminates. Protiva hereby covenants and agrees that Protiva shall not enter into any voting agreement or grant a proxy or power of attorney with respect to the Company Shares which is inconsistent with this Agreement. Protiva also hereby agrees that, until the Call Period has expired without the Call Option having been exercised, or this Agreement has been terminated in accordance with its terms, it will not, without the prior written consent of Monsanto Canada (i) grant or enter into any Liens, proxies or powers of attorney (other than as granted herein) with respect to the voting of the Company Shares, or deposit any Company Shares into a voting trust or enter into a voting agreement with respect to any Company Shares, or any interest in any of the Company Shares, except to Monsanto Canada, (ii) sell, assign, transfer, encumber or otherwise dispose of, or enter into any contract, option or other arrangement or understanding with respect to the direct or indirect sale, assignment, transfer, encumbrance or other disposition of any of the Company Shares, or (iii) take any action that would have the effect of limiting, preventing or disabling Protiva from performing its obligations hereunder or the transactions contemplated hereby.

(m) Confidential Information .

(i) Each party agrees that, for itself and its Affiliates, until the first to occur of (a) **[***]** or (b) **[***]** , a Receiving Party shall maintain all Confidential Information of the Disclosing Party in strict confidence and shall not (x) disclose Confidential Information to any third party without the prior written consent of the Disclosing Party, except for disclosures expressly permitted below or (y) use Confidential Information for any purpose except those explicitly licensed or otherwise authorized or permitted by this Agreement or any other Transaction Agreement.

(ii) The obligations in Section 7(m) will not apply with respect to any portion of the Confidential Information that the Receiving Party can show by competent proof: (a) 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; (b) 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; (c) 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 (d) 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. Specific Confidential Information disclosed by a Disclosing Party will not be deemed to be within any exceptions set forth in (a), (b), or (c) above merely because it is embraced by more general information to which one or more of those exceptions may apply and provided further that 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. 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. If the Closing occurs, then effective as of the Effective Date, references in (a), (b) and (d) to "Affiliates" shall not include the Company or any subsidiaries of the Company with respect to Protiva as the Receiving Party.

(iii) Confidential Information of a Disclosing Party may be used by the Receiving Party in the performance of its obligations under any Transaction Agreement, as otherwise expressly authorized in any Transaction Agreement or by the Disclosing Party in writing.

(iv) 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: (a) subject to the proviso below, by any party, in order to comply with applicable non-patent law (including any securities law or regulation 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; (b) subject to the proviso below, by any party, in connection with prosecuting or defending litigation; (c) by any party in connection with filing and prosecuting Protiva Project Patent or Joint Project Patent, only in a manner that complies with such party's rights and obligations in connection with such matters as set out in the Transaction Agreements; (d) subject to the proviso below, by the Company, to its Affiliates, permitted acquirers or assignees under the Transaction Agreements and its or any of their research collaborators, subcontractors, lenders (but, with respect to lenders, only Confidential Information related to the terms and conditions of the Transaction Agreements and financial information related thereto) and each of the Company's and its Affiliates' respective directors, employees, contractors and agents; (e) subject to the proviso below, by Monsanto, to its Affiliates, permitted acquirers or assignees under the Transaction Agreements and its or any of their research collaborators, subcontractors, lenders (but, with respect to lenders, only Confidential Information related to the terms and conditions of the Transaction Agreements and financial information related thereto) and each of Monsanto's and its Affiliates' respective directors, employees, contractors and agents; and (f) subject to the proviso below, by Protiva, to its Affiliates, permitted acquirers or assignees under the Transaction Agreements and its or any of their research collaborators, subcontractors, lenders (but, with respect to lenders, only Confidential Information related to the terms and conditions of the Transaction Agreements and financial information related thereto) and Protiva's and its Affiliates' respective directors, employees, contractors and agents, provided, that (x) with respect to clause (a) and (b) where reasonably possible, (1) the Receiving Party will 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, and (2) consistent with applicable law or regulation, 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, and (x) with respect to clause (d), (e) and (f), each Person to whom Confidential Information is disclosed must be bound prior to disclosure by confidentiality and non-use restrictions at least as restrictive as those contained in this Agreement (other than investment bankers, investors and lenders, who must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

(v) No party shall use the name of any other party or of any director, officer, employee, or agent of any other party or any adaptation thereof in any advertising, promotional or sales literature, publicity or in any document employed to obtain funds or financing without the prior written approval of such party or individual whose name is to be used.

(n) Financial Reporting .

(i) With respect to any period that Monsanto Canada determines it is required to consolidate the financial position and results of operations of the Company for financial account purposes or otherwise desires to audit the financial statements provided by the Company pursuant to Section 7(n)(ii), Monsanto Canada shall be entitled (at its own expense) to access such books and records of the Company as may be required to perform (or cause to be performed) an audit of the Company's financial position and results of operations for such period. Such access shall be provided on a timely basis at reasonable times, during normal business hours, and shall be made available to Monsanto Canada and any third-party accounting firm or other agent designated by Monsanto Canada. In connection with such review, Protiva shall cause the Company to make and the Company shall make, and shall cause any officers of the Company to make, such representations regarding the Company's financial position, results of operations, books and records and accounting controls as may be reasonably requested by such third-party accounting firm in the performance of any such audit of the Company's financial position and results of operations.

(ii) In addition to its obligations under Section 7(n) , the Company shall deliver to Monsanto Canada as soon as practicable, but in any event not later than the thirtieth (30 th) calendar day after each calendar month of the Company (or the sixtieth (60 th) calendar day following December 31): (i) unaudited financial statements (balance sheet, income statement, statement of members' equity and statement of cash flows) of the Company as of the end of such calendar month; (ii) copies of all agreements entered during the previous month that would reasonably be considered material or that required Monsanto Canada's consent prior to entry pursuant to this Agreement or the Transaction Agreements; and (iii) copies of all minutes of meetings (or written consents executed in lieu thereof) of the Board held during such calendar quarter. In addition to its obligations under Section 7(m) , the Company shall deliver to Monsanto Canada as soon as practicable, but in any event not later than the thirtieth (30 th) calendar day after each calendar quarter of the Company (or the sixtieth (60 th) calendar day following December 31), unaudited financial statements (balance sheet, income statement, statement of members' equity and statement of cash flows) of the Company as of the end of such calendar quarter. In addition to its obligations under Section 7(m) , the Company shall deliver to Monsanto Canada as soon as practicable, but in any event not later than the thirtieth (30 th) calendar day after each calendar year of the Company (or the sixtieth (60 th) calendar day following December 31), unaudited financial statements (balance sheet, income statement, statement of members' equity and statement of cash flows) of the Company as of the end of such calendar year.

(iii) The Company shall provide Monsanto Canada the opportunity to discuss any financial data delivered pursuant to this Section 7(n) with the Company's management (including the Board) at such times as may be mutually agreed upon between the Company and Monsanto Canada. Monsanto Canada acknowledges and agrees that it will keep all information received pursuant to this Section 7(m) confidential in accordance with Section 7(n) .

(iv) Protiva shall provide to Monsanto Canada copies of all of the Company's Tax Returns within thirty (30) calendar days after filing with the relevant Governmental Authority.

(o) Notification of Certain IP Matters . Protiva shall provide to the persons then serving as the Monsanto Canada members of the JRC, not less often than once per quarter, notice and copies (if applicable) of: (1) all office actions, notices of allowance or allowability, or other substantive actions issued in connection with any Protiva Project Patent (each a " Substantive Action "); (2) all correspondence from counsel (including foreign associates) explaining or providing guidance or recommendations regarding a Substantive Action; (3) a pre-filing draft of all Protiva Project Patent applications and responses to Substantive Actions that will or may be filed after the Effective Date as directed by the JRC in its exercise of its authority to oversee the filing, prosecution and maintenance of such Patents, revised drafts as directed by the JRC, and a copy of each Protiva Project Patent application, application and response to Substantive Action as filed; (4) all Protiva Project Inventions and invention disclosures received or prepared by Protiva directed to any Protiva Project Invention; and (5) the due date of any maintenance, annuity, or similar payment required to maintain or otherwise prevent the abandonment, expiration, or cancellation of any Protiva Project Patent, provided that such notice is given to such members of the JRC not less than 30 days prior to such due date; and, further, Protiva shall provide, in a timely manner, any of the foregoing information to the JRC that is required for the JRC to make a decision regarding a Protiva Project Patent application. For the avoidance of doubt, any Confidential Information of Protiva (as the Disclosing Party) included in such disclosures shall be subject to the provisions of Section 7(m); in addition, prior to Closing the following additional provisions shall apply: (i) the recipients of such information shall use such Confidential Information solely in connection with the performance of their duties as members of the JRC to consult with Protiva regarding whether to file Patents for Protiva Project Inventions and the prosecution, maintenance and/or abandonment of Protiva Project Patents and, for such purposes only, may disclose such Confidential Information only to such representatives of Monsanto or Monsanto Canada who (A) are bound by non-disclosure obligations with respect to such information at least as restrictive as those contained in Section 7(m) and this Section 7(o), (B) whose input such members of the JRC deem useful for such purposes (i.e., disclosure to representatives on a need to know basis only), and (C) who are either (i) a senior officer of Monsanto (e.g., the Vice President, Chemistry Technology) or (ii) Monsanto's internal legal counsel.

(p) Certain Business Practices Covenant . None of the Company, Tekmira or Protiva, or any of its other Affiliates or any Board Member or officer of the Company or any of its Affiliates, or any consultant, agent, employee or other Person acting for or on behalf of the Company or any of its Affiliates, will (A) use any funds for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity in respect of the Company Business; (B) directly or indirectly, pay or deliver any fee, commission or other sum of money or item of property, however characterized, to any finder, agent, or other party acting on behalf of or under the auspices of a governmental official or Governmental Authority which is in any manner illegal under any Laws of the United States or any other country having jurisdiction; or (C) make any payment to any customer or supplier of the Company, or given any other consideration to any such customer or supplier in respect of the Company Business that violates applicable Law in any material respect. Without limiting the foregoing, none of the Company, Protiva, Tekmira or any of its other Affiliates or any Board Member or officer of the Company or any of its Affiliates, or any consultant, agent, employee or other Person acting for or on behalf of the Company or any of its Affiliates, will, directly or indirectly, take any action that would result in a violation by such Persons of the FCPA or UK Bribery Act, or any rules or regulations thereunder or any other applicable anti-corruption Law, including: (x) by making use of the mails or any means or instrumentality of interstate commerce in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or offer, gift, promise to give, or authorization of the giving of anything of value, directly or indirectly, to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office to secure official action, or to any Person (whether or not a foreign official) to influence that Person to act in breach of a duty of good faith, impartiality or trust ("acting improperly") or to reward the Person for acting improperly, in contravention of the FCPA or the UK Bribery Act or any other applicable anticorruption Law, (y) by requesting, agreeing to receive or accepting a financial or other advantage intending that, as a consequence, anyone's work duties will be performed improperly, or as a reward for anyone's past improper performance, or (z) by otherwise offering or conveying, directly or indirectly (such as through an agent), anything of value to obtain or retain business or to obtain any improper advantage, including any bribe, rebate, payoff, influence payment, kickback or other similar unlawful payment to a foreign government official, candidate for office, or political party or official of a political party. The Company and each of its Affiliates will conduct their respective businesses in compliance with all applicable anti-corruption Laws, including the FCPA and the UK Bribery Act, and the Company and each of its Affiliates will institute and maintain policies and procedures designed to cause each such Person to comply with all applicable anti-corruption Laws, including the FCPA and the UK Bribery Act.

(q) Export Controls Covenant . The Company will comply in all material respects with the export control Laws and regulations of the United States, including but not limited to the Export Administration Regulations, and sanctions regimes of the U.S. Department of Treasury, Office of Foreign Asset Controls, and the Company will not export, reexport, or transfer products, materials, software and/or technology, either directly or indirectly, without prior U.S. government authorization, to (i) any country subject to a comprehensive U.S. trade embargo (currently Cuba, Iran, North Korea, Sudan, and Syria) or to any Person listed on the "Entity List" or "Denied Persons List" maintained by the U.S. Department of Commerce or the list of "Specifically Designated Nationals and Blocked Persons" maintained by the U.S. Department of Treasury, or (ii) any end-user engaged in activities related to weapons of mass destruction. Such activities include but are not necessarily limited to activities related to: (x) the design, development, production, or use of nuclear materials, nuclear facilities, or nuclear weapons; (y) the design, development, production, or use of missiles or support of missiles projects; and (z) the design, development, production, or use of chemical or biological weapons.

(r) PadCo-Protiva License and Services Agreement . None of Tekmira, Protiva or the Company shall amend the PadCo-Protiva License and Services Agreement in any respect without the prior written consent of Monsanto Canada.

(s) Tekmira . Within five (5) Business Days of execution of the PadCo-Protiva License and Services Agreement, Tekmira shall transfer to the Company the 1 Class A Common Share held by Tekmira.

8. Closing Conditions .

(a) Conditions of Monsanto Canada . Monsanto Canada's obligation to consummate the Closing is subject to the satisfaction, at or prior to the Closing, of each of the following conditions (any of which may be waived in writing by Monsanto Canada, in whole or in part, in its sole discretion):

(i) Exercise of Call Option . Monsanto Canada shall have exercised the Call Option in accordance with the terms of this Agreement.

(ii) Representations and Warranties Regarding the Company and Protiva . The representations and warranties set forth in S ection 4 that are qualified by materiality or Material Adverse Effect and the Fundamental Representations shall be true and correct in all respects as of the Effective Date and as of the Closing Date as though made on the Closing Date (except that those representations and warranties that are made as of a specific date, which need be true and correct only as of such date). The representations and warranties set forth in S ection 4 (other than the Fundamental Representations) that are not qualified by materiality or Material Adverse Effect shall be true and correct in all material respects as of the Effective Date and as of the Closing Date as though made on the Closing Date (except that those representations and warranties that are made as of a specific date need only be so true and correct as of such date);

(iii) Representations and Warranties Regarding Protiva and Tekmira . The representations and warranties set forth in Section 5 shall be true and correct in all respects as of the Closing Date as though made on the Closing Date;

(iv) Covenants . The covenants and agreements set forth in this Agreement to be performed or complied with or by the Company and/or Protiva and/or Tekmira at or prior to the Closing shall have been performed or complied with by the Company or Protiva or Tekmira, as applicable, in all material respects. The covenants and agreements set forth in Section 7(r) and Section 7(s) shall have been performed or complied with by the Company or Protiva or Tekmira, as applicable, in all respects;

(v) No Governmental Order. (A) No Governmental Authority shall have enacted, issued, promulgated, enforced or entered any Governmental Order or Law which is in effect or shall have initiated (which is continuing) any action that has the effect of making (or is seeking to make) the transactions contemplated by this Agreement illegal or otherwise has the effect of restraining or prohibiting (or is seeking to restrain or prohibit) the consummation thereof; and (B) all actions by or in respect of or filings with any Governmental Authority required to permit the consummation of the Closing in accordance with the terms hereof shall have been obtained (other than those actions or filings that may, by their terms, be made after such Closing or which, if not obtained or made prior to the consummation of the transactions contemplated hereby, would not have a Material Adverse Effect on the Company or Protiva prior to or after the Closing or a material adverse effect on Monsanto Canada after the Closing or be reasonably likely to subject Monsanto Canada or any of its subsidiaries or any of their respective officers or directors to substantial penalties or criminal liability);

(vi) No Material Adverse Effect. No change, event, circumstance, development, occurrence or effect shall have occurred or been discovered since the Exercise Date and be continuing as of the Closing Date that, individually or taken together with any other change, event, circumstance, development, occurrence or effect, has had or would reasonably be expected to have a Material Adverse Effect;

(vii) Officer's Certificates. Monsanto Canada shall have received an officer's certificate from each of the Company and Protiva, dated as of the Closing Date, certifying as to the matters set forth in Sections 8(a)(ii), (iii), (iv) and (vi);

(viii) No Litigation. There shall be no Action pending against Monsanto Canada, Protiva or the Company or any of their respective Affiliates by any Governmental Authority (A) seeking to enjoin or make illegal, delay or otherwise restrain or prohibit the consummation of the Call Option; (B) that would result in the Call Option being rescinded following consummation; (C) seeking material damages in connection with the Call Option; (D) seeking to compel the Company or Monsanto Canada to dispose of or hold separate any material assets as a result of the Call Option; or (E) seeking to impose any criminal sanctions or liability on Monsanto Canada, Protiva or the Company in connection with the consummation of the Call Option;

(ix) Option Exercise Price Certificate or Early Option Exercise Price Certificate. The Company shall have delivered to Monsanto Canada the Option Exercise Price Certificate or the Early Option Exercise Price Certificate, as applicable, in the form attached hereto as Exhibit H, which certificate shall be deemed to be a representation and warranty of the Company hereunder;

(x) Consents. The Company and Protiva shall have obtained the consent or approval of each Person whose consent or approval shall be required in connection with the consummation of the Closing under all notes, bonds, mortgages, indentures, contracts, agreements, leases, licenses, permits, franchises and other instruments or obligations to which it is a party; and

(xi) PadCo-Protiva License and Services Agreement . The PadCo-Protiva License and Services Agreement shall be in full force and effect and all representations and warranties set forth in the PadCo-Protiva License and Services Agreement shall be true and correct as of the Closing Date as though made on the Closing Date and shall continue to inure to the benefit of the Company, if Monsanto Canada acquires all of the outstanding capital stock of the Company, or Monsanto Canada as assignee of all of the Company's right, title, and interest in, to, and under the Protiva License, if Monsanto Canada acquires the PadCo-Protiva License and Services Agreement and the Protiva License.

(b) Conditions of Protiva . The obligation of Protiva to consummate the Closing is subject to the satisfaction, at or prior to the Closing, of each of the following conditions (any of which may be waived in writing by Protiva, in whole or in part, in its sole discretion):

(i) Representations and Warranties . The representations and warranties of Monsanto Canada set forth in S ection 6 shall be true and correct as of the Closing Date as though made on the Closing Date;

(ii) Covenants . The covenants and agreements set forth in this Agreement to be performed or complied with Monsanto Canada at or prior to the Closing shall have been performed or complied with in all material respects;

(iii) N o Governmental Order . (A) No Governmental Authority shall have enacted, issued, promulgated, enforced or entered any Governmental Order or Law which is in effect or shall have initiated (which is continuing) any action that has the effect of making (or is seeking to make) the transactions contemplated by this Agreement illegal or otherwise has the effect of restraining or prohibiting (or is seeking to restrain or prohibit) the consummation thereof; and (B) all actions by or in respect of or filings with any Governmental Authority required to permit the consummation of the Closing in accordance with the terms hereof shall have been obtained (other than those actions or filings that may, by their terms, be made after such Closing, or which, if not obtained or made prior to the consummation of the transactions contemplated hereby, would not have a Material Adverse Effect on the Company prior to or after the Closing or a material adverse effect on Protiva after the Closing or be reasonably likely to subject Protiva or any of its subsidiaries or any of their respective officers or member of the Board to substantial penalties or criminal liability); and

(iv) No Litigation . There shall be no Action pending against Monsanto Canada, Protiva or the Company or any of their respective Affiliates by any Governmental Authority (A) seeking to enjoin or make illegal, delay or otherwise restrain or prohibit the consummation of the Call Option; (B) that would result in the Call Option being rescinded following consummation; (C) seeking material damages in connection with the Call Option; (D) seeking to compel the Company or Monsanto Canada to dispose of or hold separate any material assets as a result of the Call Option; or (E) seeking to impose any criminal sanctions or liability on Monsanto Canada, Protiva or the Company in connection with the consummation of the Call Option.

9. Termination .

(a) Automatic Termination; Termination Upon Failure to Elect to Continue .

(i) This Agreement shall terminate automatically upon a Failure to Exercise.

(ii) Protiva may terminate this Agreement within the twenty (20) day period following the expiration of the applicable Phase Election Period upon written notice to Monsanto Canada if Monsanto Canada does not elect to initiate Phase B or Phase C, as applicable, during the applicable Phase Election Period.

(b) Breach by Company or Protiva . Monsanto Canada may terminate this Agreement within the twenty (20) day period following the Company Cure Period if there is a material breach of any representation, warranty, covenant or obligation of the Company or Protiva that (i) would give rise (in the case of a breach of a representation or warranty) to a failure of the condition set forth in S ections 8(a)(ii) and 8(a)(iii) to be satisfied, and (ii) if susceptible to cure, has not been cured within thirty (30) days following receipt by Protiva of written notice thereof from Monsanto Canada (the " **Company Cure Period** "); provided , that this Agreement shall in no event terminate under this S ection 9(b) if Monsanto Canada is then in material breach of any of its obligations under this Agreement.

(c) Breach of This Agreement by Monsanto Canada . Protiva may terminate this Agreement within the twenty (20) day period following the Monsanto Canada Cure Period if there is a material breach of any representation, warranty, covenant or obligation of Monsanto Canada that (i) would give rise to a failure of the condition set forth in S ection 8(b)(i) to be satisfied (in the case of a breach of a representation or warranty), and (ii) if susceptible to cure, has not been cured within thirty (30) days following receipt by the Monsanto Canada of written notice thereof from Protiva (the " **Monsanto Canada Cure Period** "); provided , that this Agreement shall in no event terminate under this S ection 9(c) , if the Company or Protiva is in material breach of any of their obligations under this Agreement.

(d) Acquisition of Protiva or Tekmira by a Principal Competitor . Monsanto Canada may terminate this Agreement immediately upon written notice to Protiva in the event of a Change of Control of Protiva or Tekmira to a Principal Competitor.

(e) Phase A . Monsanto Canada may terminate this Agreement upon delivery by Monsanto Canada to Protiva of (i) written notice of termination at any time during Phase A and (ii) **[***]** by electronic wire as arranged with Protiva. Notwithstanding the foregoing, if Phase B is initiated by Monsanto Canada, Monsanto Canada shall not be entitled to terminate this Agreement pursuant to this S ection 9(e) .

(f) Phase B . Monsanto Canada may terminate this Agreement upon delivery by Monsanto Canada to Protiva of (i) written notice of termination at any time during Phase B and (ii) **[***]** by electronic wire as arranged with Protiva. Notwithstanding the foregoing, if Phase C is initiated by Monsanto Canada, Monsanto Canada shall not be entitled to terminate this Agreement pursuant to this S ection 9(f) .

(g) Phase C . Monsanto Canada may terminate this Agreement upon delivery by Monsanto Canada to Protiva of (i) written notice of termination at any time during Phase C and (ii) Protiva **[***]** , by electronic wire as arranged with Protiva.

(h) Survival . The provisions of S ections 1 (Definitions), 7(m) (Confidential Information), 9(h) (Survival), 11 (Indemnification) and 12 (Miscellaneous) shall survive the termination of this Agreement and shall remain in full force and effect.

(i) Rights Upon Termination . For clarity, if this Agreement terminates and the Closing has not occurred prior to such termination: (a) Monsanto will relinquish its seat(s) on the Board, and (b) the Company and Protiva shall have the right to amend or terminate the PadCo-Protiva License and Services Agreement in such manner as they may deem appropriate and Monsanto shall no longer be a third party beneficiary of the PadCo-Protiva License and Services Agreement.

10. Certain Covenants .

(a) Reporting . From the Closing Date until the date of that the Commercial Milestone, if any, upon the written request of Protiva, Monsanto Canada shall provide Protiva by December 31 of each calendar year with an annual summary report of the status of any Commercialization activities of Monsanto Canada or any of its Affiliates or sublicensees with respect to any Product being developed by Monsanto Canada or any of their Affiliates. For the avoidance of doubt, all reports and other information provided by Monsanto Canada to Protiva pursuant to this Section 10(a) shall constitute "Confidential Information" and shall be kept confidential in accordance with the applicable provisions of Section 7(i). Monsanto Canada shall provide Protiva with written notice of the achievement by Monsanto Canada or the Company of the Commercial Milestone, no later than five (5) Business Days after the occurrence thereof.

(b) Exclusivity . During the Call Period and the Exclusivity Period, other than as specifically contemplated by the Research Plan, none of Tekmira, Protiva (and, during the Call Period, the Company), nor any of their respective Affiliates shall, directly or indirectly, alone or with any third Person, conduct or facilitate the conduct of any research, Development (as defined in the PadCo-Protiva License and Services Agreement) or Commercialization activities with respect to, or undertake to Develop (as defined in the PadCo-Protiva License and Services Agreement), any molecule intended for formulation and delivery of RNAi to plants and insects or other applications for use in the Agricultural Field, including through the license of any Intellectual Property to enable such action. Notwithstanding the foregoing, if a Person acquires Tekmira or Protiva and such Person (i) has a valuation of greater than **[***]** and (ii) is not a Principal Competitor, then such Person shall be permitted to continue to operate its existing operations without regard to the restrictions set forth in this Section 10(b).

11. Indemnification . The indemnification obligations of the parties hereto are set forth in Section 11 of Appendix A to this Agreement.

12. Miscellaneous .

(a) Further Assurances . If Monsanto Canada exercises the Call Option in accordance with the terms of this Agreement, from time to time and without additional consideration, but at the requesting party's expense, the parties will execute and deliver, or cause to be executed and delivered, such additional or further agreements, transfers, assignments, endorsements, consents and other instruments as may be reasonably request for the purpose of effectively carrying out the transactions contemplated by this Agreement, including the Closing, the transfer of the Protiva License, the Company Owned Intellectual Property and any other Company Licensed Intellectual Property, if any, or the outstanding capital stock of the Company to Monsanto Canada and the release of any and all liens, claims and encumbrances with respect thereto, and will use commercially reasonable efforts to take, or cause to be taken, all actions, and to do, or cause to be done, all things necessary so as to permit consummation of the transactions contemplated hereunder prior to the Closing Date.

(b) Notices . All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (i) personal delivery to the party to be notified, (ii) when sent, if sent by facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next Business Day, (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) Business Day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next Business Day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page, or to such facsimile number or address as subsequently modified by written notice given in accordance with this S ection 12(b) . If notice is given to the Company or Protiva, a copy (which shall not constitute notice) shall also be sent to Orrick, Herrington & Sutcliffe LLP, 51 West 52 nd Street, New York, NY 10019, Attn: R. King Milling, Jr. (Fax: (212) 506-5151). If notice is given to Monsanto Canada, a copy (which shall not constitute notice) shall also be sent to Bryan Cave LLP, One Metropolitan Square, 211 North Broadway, Suite 3600, St. Louis, Missouri 63102, Attn: Stephanie M. Hosler (Fax: (314) 259-8797).

(c) Entire Agreement . This Agreement (including the Exhibits hereto) and the other Transaction Agreements constitute the entire agreement of the parties with respect to the matters contemplated herein and therein. This Agreement and the other Transaction Agreements supersede any and all prior understandings as to the subject matter herein and therein.

(d) Amendments, Waivers and Consents . This Agreement may be amended only by an instrument in writing, signed by each of Monsanto Canada and Protiva. Any provisions of this Agreement may be waived if the party seeking waiver obtains the written consent of all of the affected parties.

(e) Binding Effect; Assignment . This Agreement shall be binding upon and inure to the benefit of the personal representatives and successors of the respective parties hereto and shall not be assignable by Protiva or the Company without the express written consent of the other parties hereto.

(f) Public Announcements . Except as required by Law or by a Governmental Authority (including the rules and regulations of any stock exchange or trading market on which a party's (or its parent entity's) securities are traded) or as permitted by the following sentence, none of the Company, Protiva, or Monsanto Canada, nor any of their respective Affiliates or any of their respective officers, directors, employees, agents, and representatives, as applicable, shall issue or cause the publication of any press release or other public announcement with respect to the transactions contemplated by this Agreement without the prior written consent of the other parties hereto, which consent shall not be unreasonably withheld, conditioned or delayed. In connection with the execution and delivery of this Agreement, the parties agree to publication of the press release in the form attached hereto as Exhibit G and agree that each party shall be permitted to continue to use such press release, including the specific content contained therein, for any purposes without the need to obtain the prior written consent of the other parties hereto.

(g) General . The headings contained in this Agreement are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement. In this Agreement the singular includes the plural, the plural the singular, the masculine gender includes the neuter, masculine and feminine genders. All dollar amounts are expressed in U.S. dollars.

(h) Severability . If any provision of this Agreement shall be found by any court of competent jurisdiction to be invalid or unenforceable, the parties hereby waive such provision to the extent that it is found to be invalid or unenforceable. Such provision shall, to the maximum extent allowable by law, be modified by such court so that it becomes enforceable, and, as modified, shall be enforced as any other provision hereof, all the other provisions hereof continuing in full force and effect.

(i) Counterpart s . This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

(j) G overning Law; Jurisdiction . This Agreement shall be governed and interpreted in accordance with the substantive laws of the State of New York. In the event any action shall be brought to enforce or interpret the terms of this Agreement, the Parties agree that such action will be brought in the State or Federal courts located in New York, New York. Each of the Parties hereby irrevocably submits with regard to any action or proceeding for itself and in respect to its property, generally and unconditionally, to the nonexclusive jurisdiction of the aforesaid courts. Each of the Parties hereby irrevocably waives, and agrees not to assert, by way of motion, as a defense, counterclaim or otherwise, in any action or proceeding with respect to this Agreement, (a) any claim that it is not personally subject to the jurisdiction of the above-named courts for any reason other than the failure to lawfully serve process, (b) that it or its property is exempt or immune from jurisdiction of any such court or from any legal process commenced in such courts (whether through service of notice, attachment prior to judgment, attachment in aid of execution of judgment, execution of judgment or otherwise), and (c) to the fullest extent permitted by Applicable Law, that (i) the suit, action or proceeding in any such court is brought in an inconvenient forum, (ii) the venue of such suit, action or proceeding is improper, and (iii) this Agreement, or the subject matter hereof, may not be enforced in or by such courts.

(k) Joint Research Committee . As soon as practicable following the Effective Date, the parties will establish a Joint Research Committee comprised of an equal number of representatives of Monsanto Canada and the Company (the " **JRC** "). Each of Monsanto Canada and the Company (each, a " **JRC Party** " and collectively, the " **JRC Parties** "), may replace its representatives on the JRC at any time upon written notice to the other party. The representatives of each JRC Party shall collectively have one (1) vote on all matters to be decided by the JRC, and the JRC shall take all actions by unanimous vote. The JRC will meet no less frequently than once each calendar quarter. Meetings of the JRC will be effective only if at least one (1) representative of each JRC Party is present or participating. Each JRC Party will be responsible for all of its own expenses of participating in the JRC meetings. The JRC Parties will endeavor to schedule meetings of the JRC at least six (6) months in advance; provided , that each JRC Party shall be permitted to call additional special meetings of the JRC on not less than ten (10) business days' notice. The JRC Parties will alternate in preparing the meeting agenda, and the JRC Party that was responsible for preparing the meeting agenda will act as facilitator or chair of the meeting, as well as prepare and circulate for review and approval by the other JRC Party written minutes of such meeting within thirty (30) days after such meeting. The JRC Parties will agree on the minutes of each meeting promptly, but in no event later than the next meeting of the JRC. The JRC, subject to and in accordance with the provisions of this Section 12(k) and Schedule 12(k), will (i) oversee the activities under the Research Plan, including but not limited to overseeing completion of Phase A, Phase B and Phase C and the Milestones and the Upfront Option Trigger; (ii) have the authority to make modifications to the Research Plan; (iii) consult and/or make decisions (as provided in Schedule 12(k)) regarding filing of Patent protection in the Territory for Protiva Project Inventions and decisions regarding the prosecution, maintenance and/or abandonment of Protiva Project Patents in the Territory; (iv) make decisions regarding filing of Patent protection in the Territory for Joint Project Inventions and decisions regarding the prosecution, maintenance and/or abandonment of Joint Project Patents in the Territory; (v) resolve disputes among the parties to the PadCo-Protiva License and Services Agreement or the Protiva-Monsanto Services Agreement regarding the appropriate course of action with respect to any JRC Joint IP Infringement Matter or JRC Protiva Project Infringement Matter; (vi) resolve disputes regarding whether the Technology Transfer has been completed (if Monsanto Canada exercises the Call Option); (vii) determine, within thirty (30) days following Protiva's delivery of the Data Package, whether the Company has met all requirements of Option Insect Phase C Completion Criteria and Option Plant Phase C Completion Criteria; and (viii) attend to such other matters as may be directed to the JRC by the Parties or under the terms of any Transaction Agreement. Each of the Parties shall provide the JRC with copies of all substantive communications (including a copy of the patent application as filed, and copies of all communications from the relevant patent office, and responses thereto) in connection with each patent application that is a Joint Project Patent and shall provide the JRC with periodic updates in respect of the status of any pending application for a Joint Project Patent; the members of the JRC shall review and comment on all drafts of Joint Project Patents. In the event there is a dispute among the members of the JRC regarding any matter to be handled by the JRC, e.g., in the event the members of the JRC are unable to reach a unanimous decision regarding such matter within a reasonable time (wherein such reasonable time may be determined by any one member of the JRC), then such member or members may initiate the appropriate dispute resolution process (as described below) by written notice to the other members of the JRC and such other persons who will be involved in such dispute resolution process (as described below). The processes for resolving such disputes are as follows:

(i) *Milestone and Technology Transfer Disputes.* In the event of a dispute relating to whether certain Milestones have been met or whether the Technology Transfer has been completed in accordance with the Technology Transfer Completion Criteria, the Chief Executive Officer of Protiva and the Vice President of Chemistry of Monsanto shall use commercially reasonable efforts for a period of 20 days (or such longer period as they may mutually agree) to resolve any such dispute. If, at the end of such period (the " **Dispute Negotiation Period** "), they are unable to resolve such dispute, then the matter shall be resolved in accordance with S ection 12 (k) (iv) .

(ii) *Patent Matters Disputes.* Any disputes regarding Patent prosecution matters or patent strategies shall be resolved in the manner set forth on Schedule 12(k).

(iii) *Infringement Matter Dispute.* Any dispute relating to a JRC Joint IP Infringement Matter or JRC Protiva Project Infringement Matter shall be referred to Independent IP Counsel for a recommendation, which recommendation shall be delivered to the Chief Executive Officer of Protiva and the Vice President of Chemistry of Monsanto within 10 days following such referral. During the 10 day period immediately following receipt of Independent IP Counsel's recommendation, the Chief Executive Officer of Protiva and the Vice President of Chemistry of Monsanto shall use commercially reasonable efforts to resolve such dispute taking into consideration Independent IP Counsel's recommendation. If, at the end of such period, they are unable to resolve such dispute, then the Parties agree to proceed based on Independent IP Counsel's recommendation.

(iv) *Arbitration.* Any dispute relating to (A) whether certain Milestones have been met or whether the Technology Transfer has been completed in accordance with the Technology Transfer Completion Criteria that has not been resolved in accordance with S ection 12(k)(i) , (B) whether the Company has completed Phase C or (C) the designation of the Independent IP Counsel, shall be settled by arbitration in New York, New York in accordance with the Commercial Arbitration Rules of the American Arbitration Association, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

(v) *Any Other Dispute.* In the event of any other dispute relating to the Research Plan, including any dispute relating to prioritization, direction, or other strategic issues regarding services provided by Protiva pursuant to the PadCo-Protiva License and Services Agreement or services provided by Monsanto pursuant to the Protiva-Monsanto Services Agreement, or any other dispute to be resolved pursuant to the provisions of this Section 12(k)(v), the Chief Executive Officer of Protiva and the Vice President of Chemistry of Monsanto shall use commercially reasonable efforts for a period of 20 days (or such longer period as they may mutually agree) to resolve any such dispute. If, at the end of such period, they are unable to resolve such dispute, then the matter shall be resolved by the Chief Technology Officer of Monsanto; provided, however, that (a) such resolution shall not contravene existing agreements that Protiva is a party to or its business strategies or require the contribution of additional resources of the Company without Protiva's prior written consent, which consent shall not be unreasonably withheld, delayed or conditioned and (b) any increase in costs to Protiva as a result of decisions by Monsanto Canada under this S ection 12(k)(v) shall be borne by Monsanto Canada.

(l) Disclosure of Protiva Project Compounds . In the event Monsanto Canada requests disclosure of the chemical composition of any Compounds or Formulations Discovered by, Developed by, that come under the Control of, or that are otherwise used by or on behalf of, Protiva or any of its Affiliates under the Research Program or in connection with the provision of Services that are not Joint Project Intellectual Property and that are the Confidential Information of Protiva (each a " **Protiva Project Compound** ") prior to Closing: (i) Protiva shall disclose the chemical composition of such Protiva Project Compound to the persons then serving as the Monsanto Canada members of the JRC (the " **Permitted Recipients** "); (ii) the Permitted Recipients shall use such chemical composition information solely to evaluate the merits of filing a Patent application that would require disclosure of such chemical composition information and, for such purpose only, may disclose such chemical composition to such representatives of Monsanto or Monsanto Canada who (A) are bound by non-disclosure obligations with respect to such information at least as restrictive as those contained in Section 7(m) and this Section 12(l) and (B) whose input the Permitted Recipients deem useful for purposes of such evaluation (i.e., disclosure to representatives on a need to know basis only); and (iii) in the event the Permitted Recipients, in their discretion, elect to recommend filing such a Patent application, such recommendation shall be referred to the JRC, to be considered by the JRC in the performance of its duties, as set forth in Section 12(k) and Schedule 12 (k). In the event the then Licensee (as defined in the PadCo-Protiva License and Services Agreement) under the PadCo-Protiva License and Services Agreement requests disclosure of the chemical composition of any Protiva Project Compound after Closing: (i) Protiva shall disclose the chemical composition of such Protiva Project Compound to the persons designated by the Licensee; (ii) the Licensee may use and disclose such chemical composition information (which chemical composition information is and shall be Protiva Know-How for purposes of the Transaction Agreements) for the purposes set out in and subject to the terms and conditions of the PadCo-Protiva License and Services Agreement; and (iii) in the event the Licensee, in its discretion, elects to recommend filing a Patent application that would require disclosure of such chemical composition information, such recommendation shall be referred to the JRC, to be considered by the JRC in the performance of its duties, as set forth in Section 12(k) and Schedule 12(k). Nothing in this Section 12(l) shall be deemed to limit Protiva's rights to make decisions and/or recommendations regarding the filing or prosecution of Protiva Background Patents or Protiva Project Patent so long as such activities are conducted in a manner Protiva reasonably determines will prevent the disclosure to Monsanto Canada of chemical composition information not requested by Monsanto Canada.

(m) Specific Enforcement . The parties hereto agree that if any of the provisions of this Agreement, were not performed in accordance with their specific terms or were otherwise breached, irreparable damage would occur, no adequate remedy at law would exist and damages would be difficult to determine, and that, except as otherwise provided herein, the parties shall be entitled to specific performance of the terms hereof, in addition to any other remedy at law or equity, without any requirement to the securing or posting of any bond in connection with such remedy.

(n) No Finder's Fees . Each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. Monsanto Canada agrees to indemnify and to hold harmless the Company and Protiva from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which Monsanto Canada or any of its officers, employees, or representatives is responsible. The Company and Protiva agree to indemnify and hold harmless Monsanto Canada from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Company or Protiva or any of their respective officers, employees or representatives is responsible.

(o) Titles and Subtitles . The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

(p) Delays or Omissions . No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF , the parties have caused this Agreement to be duly executed under seal as of the date first above written.

PROTIVA BIOTHERAPEUTICS INC.

By: _____
Name:
Title:
Address:

PROTIVA AGRICULTURAL DEVELOPMENT COMPANY, INC.

By: _____
Name:
Title:
Address:

TEKMIRA PHARMACEUTICALS CORPORATION

By: _____
Name:
Title:
Address:

MONSANTO CANADA, INC.

By: _____
Name: Robert M. McCarroll, Ph. D.
Title: Authorized Signatory
Address:

[*Signature Page to Option Agreement*]

Schedule 12(k)

Patent Prosecution and Review Procedures

[***]

EXHIBIT A

RESEARCH PLAN

[***]

EXHIBIT B-1

UPFRONT OPTION COMPLETION CRITERIA

[***]

EXHIBIT B-2(i)

PLANT PHASE A

COMPLETION CRITERIA

[***]

EXHIBIT B-2(ii)

INSECT PHASE A

COMPLETION CRITERIA

[***]

EXHIBIT B-3(i)

PLANT PHASE B

COMPLETION CRITERIA

[***]

EXHIBIT B-3(ii)

INSECT PHASE B

COMPLETION CRITERIA

[***]

EXHIBIT B-4(i)

PLANT PHASE C

COMPLETION CRITERIA

[***]

EXHIBIT B-4(ii)

INSECT PHASE C

COMPLETION CRITERIA

[***]

EXHIBIT B-5(i)

OPTION SET-UP COMPLETION CRITERIA

[***]

EXHIBIT B-5(ii)

OPTION SHIPMENT COMPLETION CRITERIA

[***]

EXHIBIT B-6

TECHNOLOGY TRANSFER COMPLETION CRITERIA

[***]

EXHIBIT C

PADCO-PROTIVA LICENSE AND SERVICES AGREEMENT

EXHIBIT D

PROTIVA-MONSANTO LICENSE AND SERVICES AGREEMENT

Attached

EXHIBIT E

FORM OF
MILESTONE ACHIEVEMENT NOTICE

[_____] [___], 20[__]

Monsanto Canada, Inc.
_____
_____
Attention: [__]

Re: Milestone Achievement Notice

Ladies and Gentlemen:

Reference is hereby made to that certain Option Agreement, dated as of January 12, 2014 (the " **Option Agreement** "), by and among Monsanto Canada, Inc., a Canadian corporation, Tekmira Pharmaceuticals Corporation, a British Columbia corporation, Protiva Biotherapeutics Inc., a British Columbia corporation, and Protiva Agricultural Development Company Inc., British Columbia corporation (the " **Company** "). Capitalized terms which are used herein without definition shall have the same meanings herein as in the Option Agreement.

Pursuant to Section 3(b)(i) of the Option Agreement, we hereby notify you that the JRC has made a determination that the Company has satisfied [the Upfront Option Completion Criteria] [the Option Set-up Completion Criteria][the Option Shipment Completion Criteria][the Option Insect Phase A Completion Criteria][the Option Plant Phase A Completion Criteria][the Option Insect Phase B Completion Criteria][the Option Plant Phase B Completion Criteria][the Option Insect Phase C Completion Criteria][the Option Plant Phase C Completion Criteria][the Technology Transfer Completion Criteria], and [the Upfront Option Trigger][the Option Set-up Milestone][the Option Shipment Milestone][the Option Insect Milestone A][the Option Plant Milestone A][the Option Insect Milestone B][the Option Plant Milestone B] [the Option Insect Milestone C][the Option Plant Milestone C][the Technology Transfer] has therefore been achieved.

Very truly yours,

Joint Research Committee

_____
Name:

_____
Name:

EXHIBIT F

DISCLOSURE SCHEDULE

TO PROTIVA AGRICULTURAL DEVELOPMENT COMPANY INC.

OPTION AGREEMENT

by and among

MONSANTO CANADA, INC.,

TEKMIRA PHARMACEUTICALS CORPORATION,

PROTIVA BIOTHERAPEUTICS INC.,

and

PROTIVA AGRICULTURAL DEVELOPMENT COMPANY INC.

Dated as of January 12, 2014

[***]

Section 4(f)(iii)(A)

INTELLECTUAL PROPERTY

[***]

Section 4(f)(iii)(C)

COVENANTS NOT TO SUE

[***]

Section 4(f)(iii)(D)

RESEARCH PROGRAM NON-INFRINGEMENT AS OF THE EFFECTIVE DATE

[***]

Section 4(f)(iii)(E)

RESEARCH PROGRAM IP NON-INFRINGEMENT ON THE CLOSING DATE

[***]

Section 4(f)(iii)(F)

NO ACTIONS PENDING – PROTIVA IP

[***]

Section 4(f)(x)

CONFIDENTIAL INFORMATION - EMPLOYEES

[***]

Section 4(f)(x)-2

CONFIDENTIAL INFORMATION

[***]

Section 4(f)(xi)

OPTIONS, LICENSES, COVENANTS, SECURITY INTERESTS, LIENS

[***]

Section 4(f)(xii)

USE OF GOVERNMENTAL AUTHORITIES

[***]

Section 4(h)(ii)

PERMITS

[***]

CONFIDENTIAL

Section 4(k)(i)

FINANCIAL STATEMENTS

[***]

EXHIBIT G

PRESS RELEASE

Attached

Tekmira Signs Development Agreement on Delivery Technology For Agricultural Applications

FOR IMMEDIATE RELEASE: **January 13, 2014**

Vancouver, BC — Tekmira Pharmaceuticals Corporation (Nasdaq: TKMR, TSX: TKM), a leading developer of RNA interference (RNAi) therapeutics, announced today that it has signed an Option Agreement with Monsanto, pursuant to which Monsanto may obtain a license to use Tekmira's proprietary delivery technology. The transaction will support the application of Tekmira's proprietary delivery technology and related intellectual property (IP) for use in agriculture. Tekmira noted that the potential value of the transaction could reach up to US$86.2 million following the successful completion of milestones. Tekmira expects to receive a near term payment of net US$16.5 million.

The agreement announced today follows Monsanto's initial testing of Tekmira's proprietary delivery technology and the demonstration of initial positive results from use of that technology in the field of agriculture. The companies' agreement and research collaboration will now focus on the development of new innovative biological solutions for farmers, which have the potential to provide new options for sustainable pest, virus and weed control.

Over the option period, which is expected to be approximately four years, Tekmira will provide lipid formulations to Monsanto's research and development activities, and Monsanto will make certain payments to Tekmira to maintain its option rights. At any time during the option period, Monsanto may choose to exercise its option, in which case Monsanto will pay to Tekmira an option exercise fee and will receive a worldwide, exclusive right to use Tekmira's proprietary delivery technology in the field of agriculture. Monsanto may elect to terminate this option at their discretion. Tekmira retains all rights to therapeutics uses of all current IP and IP developed under the agreement.

"Our proprietary delivery technology is enabling the most advanced applications of RNAi therapeutics in the clinic. This new agreement points to the broad applicability of Tekmira's delivery platform, and underscores the promise of applying this science within the field of agriculture. We are pleased to have this additional validation of our technology," said Dr. Mark J. Murray, Tekmira's President and CEO.

"As a core pillar of our business strategy, we continue to seek out a wide range of partnerships where our technology can enable the programs of our collaborators," added Dr. Murray.

"We are pleased to partner with Tekmira to explore development of their delivery technologies for the field of agriculture," said Dr. Robert M McCarroll, Vice President of Chemistry Technology for Monsanto Company. "We believe that by collaborating with Tekmira, the company's research can provide a key enablement to support and expand our BioDirect technology platform."

About Monsanto Company
Monsanto Company, operating worldwide through its affiliates and subsidiaries, is a leading global provider of technology-based solutions and agricultural products that improve farm productivity and food quality. Monsanto remains focused on enabling both small-holder and large-scale farmers to produce more from their land while conserving more of our world's natural resources such as water and energy. To learn more about our business and our commitments, please visit: www.monsanto.com . Follow our business on Twitter® at www.twitter.com/MonsantoNews , on the company blog, Beyond the Rows® at www.monsantoblog.com , or subscribe to our News Release RSS Feed.

About Tekmira
Tekmira Pharmaceuticals Corporation is a biopharmaceutical company focused on advancing novel RNAi therapeutics and providing its leading delivery technology platforms 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.tekmirapharm.com. Tekmira is based in Vancouver, B.C.

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 Monsanto's potential worldwide, exclusive right to use Tekmira's proprietary LNP platform technology in the field of agriculture; the use of Tekmira's proprietary LNP platform technology and related IP in agriculture applications; the Monsanto option agreement, including the quantum of the potential value, quantum and timing of expected payments, expected duration of the option period and expected focus of research collaboration activities on the development of new innovative biological solutions for farmers; the provision by Tekmira of lipid formulations to Monsanto's research and development activities and payment by Monsanto to Tekmira to maintain its option rights; and Tekmira's strategy, future operations, prospects and the plans of management.

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; Tekmira's research and development capabilities and resources; the use of LNP technology by Tekmira's development partners; and the timing and quantum of payments to be received under contracts with Tekmira's partners. 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 agreement with Monsanto may not result in the use of Tekmira's technology in agricultural applications, or result in the payment (both quantum and timing) from Monsanto as anticipated, or at all; Tekmira's technology many have no economically beneficial application in the field of agriculture; Monsanto may never exercise its option to receive a worldwide, exclusive right to use Tekmira's proprietary LNP platform technology in the field of agriculture; Tekmira's products may not prove to be effective or as potent as currently believed.

A more complete discussion of the risks and uncertainties facing Tekmira appears in Tekmira's Annual Report on Form 20-F for the year ended December 31, 2012, which is available at www.sedar.com or at www.sec.gov/edgar. 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.

Contact Information

Investors
Jodi Regts
Director, Investor Relations
Phone: 604-419-3234
Email: jregts@tekmirapharm.com

Media
David Ryan
Longview Communications Inc.
Phone: 416-649-8007
Email: dryan@longviewcomms.ca

EXHIBIT H

FORM OF
OPTION EXERCISE PRICE CERTIFICATE

[_____] [___], 20[__]

This OPTION EXERCISE PRICE CERTIFICATE (" **Certificate** ") is being delivered pursuant to Section 3(c)(i)(A) of that certain Option Agreement (the " **Option Agreement** "), dated as of January 12, 2014, by and among Monsanto Canada, Inc., a Canadian corporation (" **Monsanto Canada** "), Tekmira Pharmaceuticals Corporation, a Canadian corporation, Protiva Biotherapeutics Inc., a British Columbia corporation (" **Protiva** "), and Protiva Agricultural Development Company Inc., a British Columbia corporation. Capitalized terms which are used herein without definition shall have the same meanings herein as in the Option Agreement.

The undersigned, solely in [his] capacity as the [Chief Financial Officer] of Protiva, certifies the following:

(a) The total amount previously paid by Monsanto Canada as the Initiation Payments, if any, is $[●].

(b) The total amount previously paid by Monsanto Canada as the Upfront Option Payment, if any, is $[●].

(c) The total amount previously paid by Monsanto Canada as the Milestone Payments, if any, is $[●].

(d) The total amount of Indebtedness of the Company expected to be outstanding upon the Closing is $[●].

(e) Protiva's calculation of the Option Exercise Price is $[●].

(f) Protiva's calculation of the Option Exercise Price Credits is $[●].

(g) Protiva's calculation of the Closing Payment is $[●].

Attached hereto as Exhibit A is documentation supporting the calculation of the amounts set forth herein.

[Signature Page Follows]

IN WITNESS WHEREOF , the undersigned has caused this Certificate to be executed the day and year first above written.

PROTIVA BIOTHERAPEUTICS INC.

By: _____
Name:
Title:

[Signature Page to Form of Option Exercise Price Certificate]

Exhibit A

SUPPORTING DOCUMENTATION

FORM OF
EARLY OPTION EXERCISE PRICE CERTIFICATE

[_____] [___], 20[__]

This EARLY OPTION EXERCISE PRICE CERTIFICATE (" **Certificate** ") is being delivered pursuant to Section 3(c)(ii)(A) of that certain Option Agreement (the " **Option Agreement** "), dated as of January 12, 2014, by and among Monsanto Canada, Inc., a Canadian corporation (" **Monsanto Canada** "), Tekmira Pharmaceuticals Corporation, a British Columbia corporation, Protiva Biotherapeutics Inc., a British Columbia corporation (" **Protiva** "), and Protiva Agricultural Development Company Inc., a British Columbia corporation. Capitalized terms which are used herein without definition shall have the same meanings herein as in the Option Agreement.

The undersigned, solely in [his] capacity as the [Chief Financial Officer] of Protiva, certifies the following:

(a) The total amount previously paid by Monsanto Canada as the Initiation Payments, if any, is $[●].

(b) The total amount previously paid by Monsanto Canada as the Upfront Option Payment, if any, is $[●].

(c) The total amount of all Milestone Payments regardless of whether such Milestone Payment has already been previously paid by Monsanto Canada is $[●].

(d) The total amount previously paid by Monsanto Canada as the Milestone Payments, if any, is $[●].

(e) The total amount of Indebtedness of the Company expected to be outstanding upon the Closing is $[●].

(f) Protiva's calculation of the Early Option Exercise Price is $[●].

(g) Protiva's calculation of the Early Option Exercise Price Credits is $[●].

(h) Protiva's calculation of the Early Exercise Closing Payment is $[●].

Attached hereto as Exhibit A is documentation supporting the calculation of the amounts set forth herein.

[Signature Page Follows]

IN WITNESS WHEREOF , the undersigned has caused this Certificate to be executed the day and year first above written.

PROTIVA BIOTHERAPEUTICS INC.

By: _____
Name:
Title:

[Signature Page to Form of Early Option Exercise Price Certificate]

Exhibit A

SUPPORTING DOCUMENTATION

EXHIBIT I

FORM OF
PHASE COMPLETION NOTICE

[_____] [___], 20[__]

Monsanto Canada, Inc.
_____
_____
Attention: [__]

Re: Phase Completion Notification

Ladies and Gentlemen:

Reference is hereby made to that certain Option Agreement, dated as of January 12, 2014 (the " **Option Agreement** "), by and among Monsanto Canada, Inc., a Canadian corporation (" **Monsanto Canada** "), Tekmira Pharmaceuticals Corporation, a British Columbia corporation, Protiva Biotherapeutics Inc., a British Columbia corporation, and Protiva Agricultural Development Company Inc., a British Columbia corporation (the " **Company** "). Capitalized terms which are used herein without definition shall have the same meanings herein as in the Option Agreement.

Pursuant to Section 2(e) of the Option Agreement, we hereby notify you that the JRC has made a determination that the Company has completed [Phase A][Phase B] and that Monsanto Canada has thirty (30) days after receipt of this notice to elect to initiate the subsequent phase.

Very truly yours,

Joint Research Committee

_____
Name:

_____
Name:

EXHIBIT J

CERTAIN KNOWLEDGE PERSONS

[***]

Note: In the event that any of the above Persons is no longer employed by Tekmira or Protiva or any of their Affiliates, then such Person shall be removed from this Exhibit J and shall be replaced with the name of the Person hired to replace Person.

EXHIBIT K

CERTAIN PRINCIPAL COMPETITORS

[***]

Note: The term Principal Competitor shall not include the pharmaceutical Affiliates of those entities with an asterisk (*).

APPENDIX A

[***]

Exhibit 10.34

EXECUTION COPY

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 AND SERVICES AGREEMENT

Between

PROTIVA AGRICULTURAL DEVELOPMENT COMPANY INC.

on the one hand,

and

PROTIVA BIOTHERAPEUTICS INC.

and

TEKMIRA PHARMACEUTICALS CORPORATION ,

on the other hand

Dated: January 12, 2014

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TABLE OF CONTENTS
(continued)

LICENSE AND SERVICES AGREEMENT

This License and Services Agreement (this " Agreement ") is entered into as of January 12, 2014 (the " Effective Date "), between Protiva Agricultural Development Company Inc., a British Columbia corporation with a principal place of business at 100-8900 Glenlyon Parkway, Burnaby, B.C., Canada V5J 5J8 (" PadCo "), 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 Tekmira own or Control Protiva Intellectual Property (as defined below) that is useful for the delivery of a variety of oligonucleotide products, including those that function through RNA interference or the modulation of microRNAs;

WHEREAS, contemporaneously with the execution of this Agreement (a) Protiva is granting Monsanto Canada, Inc., a Canadian corporation (" Monsanto Canada "), an exclusive option pursuant to the terms of, and subject to the conditions in, the Option Agreement (as defined below) by and among Monsanto Canada, Protiva, Tekmira, and PadCo dated as of the Effective Date (as the same may be amended, restated, or otherwise modified from time to time, the " Option Agreement ") and (b) Protiva and Monsanto are entering into a services agreement (as the same may be amended, restated, or otherwise modified from time to time, the " Protiva-Monsanto Services Agreement "), pursuant to which, among other things, Monsanto will conduct services for Protiva to screen Compounds and/or Formulations according to the Research Program (each as defined below);

WHEREAS, PadCo is Protiva's wholly-owned subsidiary, which was formed to engage in the business, directly or indirectly, of Discovering, Developing, Commercializing and Manufacturing products in the Agricultural Field (each as defined below); and

WHEREAS, Protiva and Tekmira desire to grant Licensee licenses to Protiva Intellectual Property, and Protiva desires to provide Licensee services related to Developing and Commercializing the Products (each as defined below), 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, PadCo, Tekmira 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 and/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.

" Agricultural Field " means any and all applications in agriculture, horticulture, forestry, aquaculture, and/or residential (e.g., lawn and garden) markets relating to, for example, plants, fish, arthropods and/or pests and pathogens thereof. For the avoidance of doubt, Agricultural Field excludes, for example: (a) all human and animal (other than fish and arthropods) therapeutic, prophylactic, and diagnostic applications; and (b) modification of any cells, tissues, or organisms for the purpose of manufacturing heterologous proteins, peptides, or viruses for any purpose, including producing therapeutic products, other than the modification of plants, plant cells, or plant tissues for the purpose of manufacturing heterologous proteins, peptides, or viruses for application to plants, fish, arthropods, and/or pests or pathogens thereof.

" 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.

" Background Patent Infringement Action " has the meaning set forth in Section 5.3(b).

" Call Option " has the meaning set forth in the Option Agreement.

" Call Period " has the meaning set forth in the Option Agreement.

" Channel Costs " means those costs incurred by a Party and its Affiliates in preparing and utilizing distribution channels for a Product (including product returns, customer rebates, dealer incentives, volume discounts, seed service fees, cash discounts (pre-pay discounts), local competitive response, transportation or cargo insurance, and some of which, by way of example, are currently identified as "seed service fees," "crop loss and replant," "volume discount," and "seed action pack"), in all cases allocated to such Products in accordance with GAAP.

" Closing " has the meaning set forth in the Option Agreement.

" Code " has the meaning set forth in Section 2.5.

" Combination Product " means any Product that incorporates other technology and/or materials that embody Patents, Know-How, or other intellectual property rights, benefits, and/or value, including for example, seeds, seed treatments (chemicals or biopesticides), or transgenic or non-transgenic components of a plant genome; provided , however , that a Product will only be a Combination Product if such other technology and/or materials have been packaged and sold separately at any time.

" Commercial Milestone Payment " has the meaning set forth in Section 3.3(a).

" Commercialize " means any and all activities directed to marketing, promoting, distributing, importing, having imported, exporting, having exported, selling and having sold a Product, in each case for commercial purposes.

" Commercial Launch " means the first bona fide commercial sale of the Product in an arm's length transaction.

" Compound " means any molecule (a) that is Controlled by Protiva as of the Effective Date, (b) Discovered by Protiva or any of its Affiliates under the Research Program, or (c) becomes under the Control of Protiva or any of its Affiliates during the period in which Protiva is providing Services pursuant to the Research Program.

" Confidential Information " means all proprietary or confidential information and 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, chemical substances, formulations, techniques, processes, methodology, 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 Products.

" Continuing JRC Term " has the meaning set forth in Section 5.7.

" Control ," " Controls " or " Controlled by " means, with respect to any Compound, Formulation, or Protiva Intellectual Property, the possession of (whether by ownership or license, other than pursuant to this Agreement), or the ability of Protiva or any of its Affiliates to grant access to, or a license or sublicense of, such Compound, Formulation, or Protiva Intellectual Property as provided for herein without violating the terms of any agreement or other arrangement with any Third Party existing at the time Protiva would be required hereunder to grant (or cause its Affiliates to grant) Licensee such access or license or sublicense.

" Cover ," " Covers " or " Covered by " means, with respect to a Product, that, but for ownership of or a license or sublicense granted under a Valid Claim of a Protiva Background Patent or Protiva Project Patent, the Discovery, Development, Manufacture, and/or Commercialization with respect to such Product would infringe such Patent (or, if such Patent is a patent application, would infringe a patent issued from such patent application if such patent application were to issue with the claims pending in the patent application as of the moment the determination of "Cover," "Covers," or "Covered by" is being made).

" Develop ," " Developing " or " Development " means any and all activities, testing and studies required to develop one or more Products for Regulatory Approval and/or commercial sale.

" Diligence Buyout Payment " has the meaning set forth in Section 2.6(c).

" Diligence Period " has the meaning set forth in Section 2.6(a).

" Disclosing Party " has the meaning set forth in the Option Agreement.

" Discover ", " Discovering " or " Discovery " means any and all research or discovery activities in respect of a Compound, Formulation, or Product.

" Effective Date " has the meaning set forth in the introductory paragraph.

" Formulation " means any chemical composition, including lipids, conjugates and polymers formulated with a variety of excipients, that is (a) Controlled by Protiva as of the Effective Date; (b) designed, screened or tested under the Research Program; or (c) becomes under the Control of Protiva or any of its Affiliates during the period in which Protiva is providing Services pursuant to the Research Program.

" 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.

" Identified Infringement " has the meaning set forth in Section 5.4(b).

" Indemnified Party " has the meaning set forth in Section 7.3.

" Indemnifying Party " has the meaning set forth in Section 7.3.

" Infringement Action " means a Background Patent Infringement Action or a Project Patent Infringement Action.

" Initiating Party " has the meaning set forth in Section 5.4(d).

" Insolvent Party " has the meaning set forth in Section 8.5.

" IP Counsel " has the meaning set forth in the Option Agreement.

" Joint Project Intellectual Property " means (a) all inventions that are conceived jointly by: (i) Monsanto, employees of Monsanto, or other Persons owing a duty to assign to Monsanto (" Monsanto Personnel ") *and* (ii) Protiva, any of its Affiliates, employees of Protiva or any of its Affiliates, or other Persons owing a duty to assign to Protiva or any of its Affiliates (" Protiva Personnel ") in the conduct of activities under the Research Program (" Joint Project Inventions "), (b) all Know-How that is developed, created, made, discovered, or produced jointly by Monsanto Personnel and Protiva Personnel in the conduct of activities under the Research Program, and (c) all tangible works of expression that are co-authored by Monsanto Personnel and Protiva Personnel in the conduct of activities under the Research Program. In the event the same invention is conceived of independently by both Monsanto Personnel and Protiva Personnel in the conduct of activities under the Research Program, such invention shall be Joint Project Intellectual Property.

" Joint Project Patents " means Patents that are directed to Joint Project Inventions.

" JRC " has the meaning set forth in the Option Agreement.

" JRC Protiva Project Infringement Matter " has the meaning set forth in Section 5.5.

" Knowingly " has the meaning set forth in the Option Agreement.

" Knowledge " has the meaning set forth in the Option Agreement.

" Know-How " means biological materials and other tangible materials, information, data, inventions, practices, methods, protocols, formulas, formulations, knowledge, know-how, trade secrets, processes, assays, skills, experience, techniques and results of experimentation and testing, patentable or otherwise (but excluding any marketing, financial, commercial, personnel and other business information and plans).

" Licensee " means PadCo or, in the event Monsanto Canada exercises the Call Option and receives from PadCo an assignment of all of PadCo's rights and obligations under this Agreement, shall mean Monsanto Canada or any permitted assignee of Monsanto Canada.

" Licensee Indemnitees " has the meaning set forth in Section 7.1.

" Losses " has the meaning set forth in Section 7.1.

" Manufacturing " or " Manufacture " means, with respect to a Product, all activities associated with the production, manufacture, packaging, labeling, releasing or processing of such Product.

" Monsanto " means Monsanto Company, a Delaware corporation.

" Monsanto Canada " has the meaning set forth in the recitals.

" Monsanto Improvements " has the meaning set forth in the Protiva-Monsanto Services Agreement.

" Monsanto Project Intellectual Property " has the meaning set forth in the Protiva-Monsanto Services Agreement.

" Net Sales " means Value Captured for a Product less Channel Costs. Net Sales shall also be consistent with GAAP. For the avoidance of doubt, for a Combination Product, Net Sales shall be equitably apportioned for the contribution of Protiva Background Patents, Protiva Project Patents and/or Joint Project Patents in the Combination Product in a manner generally consistent with the then-current custom and practice.

" Non-Initiating Party " has the meaning set forth in Section 5.4(d).

" Option Agreement " has the meaning set forth in the recitals.

" PadCo " has the meaning set forth in the introductory paragraph.

" Party " means either Licensee or Protiva; " Parties " means Licensee and Protiva. References to "Party" and "Parties", as applicable, shall also refer to Tekmira with respect to the Tekmira Patents and the rights and obligations related thereto.

" 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.

" 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.

" Phase A " means the initial development activities outlined in the Research Plan to be commenced pursuant to Section 2(e)(ii) of the Option Agreement.

" Phase B " means the activities outlined in the Research Plan to be commenced pursuant to Section 2(e)(iii) of the Option Agreement.

" Phase C " means the activities outlined in the Research Plan to be commenced pursuant to Section 2(e)(iv) of the Option Agreement.

" Product " means any product or process in the Agricultural Field Covered by a Valid Claim of one or more of the Protiva Background Patents, Protiva Project Patents, or Joint Project Patents.

" Project Patent Infringement Action " has the meaning set forth in Section 5.4(b).

" Proposed Abandonment " has the meaning set forth in Section 5.6.

" Protiva Background Patents " means Patents relevant to or useful in the composition, formulation, or manufacture of Compounds and/or Formulations and/or their use in the Agricultural Field that are (i) Controlled by Protiva and that are (1) independent of the activities under the Research Program and (2) exist (whether as pending applications, issued patents, or otherwise) as of the Effective Date and/or (ii) Controlled by Protiva or any of its Affiliates and that are (1) independent of the activities under the Research Program and (2) exist (whether as pending applications, issued patents, or otherwise) at any time during the period beginning immediately following the Effective Date and ending on the date that is **[***]** . For purposes of Sections 2.5, 5.2(a), 5.3, 5.5, and 5.6 references to "Protiva Background Patents" shall be deemed to also refer to Tekmira Patents (and, as applicable, references to Protiva shall be deemed to refer to Tekmira).

" Protiva Indemnitees " has the meaning set forth in Section 7.2.

" Protiva Intellectual Property " means Protiva Know-How, Protiva Background Patents, Protiva Project Patents, Protiva Research Data and Tekmira Patents.

" Protiva Know-How " means Know-How relevant to or useful in the composition, formulation, or manufacture of Compounds and/or Formulations and/or their use in the Agricultural Field which is Controlled by (a) Protiva on the Effective Date and/or (b) Protiva or any of its Affiliates at any time during the period beginning immediately following the Effective Date and ending on the Closing Date; provided , however , Protiva Know-How shall exclude Protiva Background Patents, Protiva Project Patents, and Joint Project Intellectual Property.

" Protiva License " means all rights and licenses in and to the Protiva Intellectual Property, and all other rights, granted to Licensee, or to which Licensee is otherwise entitled, pursuant to this Agreement, together with the benefit of (and subject to) all representations, warranties, covenants, and terms related to the Protiva Intellectual Property as set forth in this Agreement.

" Protiva-Monsanto Services Agreement " has the meaning set forth in the recitals.

" Protiva Note " means a non-interest-bearing demand promissory note in the principal amount of **[***]** .

" Protiva Project Inventions " means inventions that are not Joint Project Intellectual Property and that are conceived by Protiva Personnel in the conduct of the Services or other activities under the Research Program pursuant to this Agreement.

" Protiva Project Patents " means Patents that are directed to Protiva Project Inventions.

" Protiva Purchase Price " shall mean **[***]** .

" Protiva Research Data " has the meaning set forth in Section 4.3.

" Receiving Party " has the meaning set forth in the Option Agreement.

" Record Retention Period " has the meaning set forth in Section 3.3(c).

" Research " or " Researching " means identifying, evaluating, testing, validating and/or optimizing Compounds, Formulations or Products.

" Research Plan " has the meaning set forth in the Option Agreement.

" Research Program " means the program to design and synthesize Compounds and/or Formulations and to conduct research and development activities for such Compounds and/or Formulations as described in the Research Plan.

" Response Deadline " has the meaning set forth in Section 5.6.

" Services " has the meaning set forth in Section 4.1.

" Solvent Party " has the meaning set forth in Section 8.5.

" Sublicensee " means a Third Party to whom Licensee has granted a sublicense pursuant to the terms hereof.

" Tax Act " means the *Income Tax Act* (Canada).

" Tax Value " shall mean, in respect of the rights transferred to the Licensee hereunder, where the respective transferred right is eligible capital property under the Tax Act, the least of the amounts referred to in subparagraphs 85(1)(d)(i), (ii) and (iii) of the Tax Act; where the where the respective transferred right is capital property under the Tax Act, the least of the amounts referred to in subparagraphs 85(1)(c.1)(i) and (ii) of the Tax Act; and where the where the respective transferred right is depreciable property under the Tax Act, the least of the amounts referred to in subparagraphs 85(1)(e)(i), (ii) and (iii) of the Tax Act.

" Tekmira Patents " means Patents relevant to or useful in the composition, formulation, or manufacture of Compounds and/or Formulations and/or their use in the Agricultural Field that are Controlled by Tekmira as of the Effective Date, other than the Patents listed on Exhibit A.

" Tekmira Purchase Price " shall mean **[***]** .

" Term " means the term described in Section 8.1.

" Territory " means worldwide.

" Third Party " means any Person other than Protiva, Licensee or any of their respective Affiliates.

" Third Party Claim " has the meaning set forth in Section 7.3.

" Trade Secret Disclosure Provisions " means the provisions set out in Section 12(l) of the Option Agreement that govern disclosure and use of Confidential Information of Protiva relating to the chemical compositions of Compounds and Formulations.

" Transferred Protiva Rights " means the licenses granted by Protiva to Licensee set forth in Section 2.1.

" Transferred Tekmira Rights " means the licenses granted by Tekmira to Licensee set forth in Section 2.1.

" Transaction Agreements " shall mean this Agreement, the Protiva-Monsanto Services Agreement, the Option Agreement, and such other documents entered into in connection therewith.

" Valid Claim " means a claim of: (a) an issued and unexpired Protiva Project Patent, Protiva Background Patent, or Joint Project Patent, as applicable, 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 Project Patent, a Protiva Background Patent, or a Joint Project Patent claiming an invention that is Joint Intellectual Property, as applicable, that has not been pending for more than eight years 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, which is not appealable or has not been appealed within the time allowed for appeal; provided, however, that for purposes of defining Products for purposes of Section 3.3(a), a claim of a pending application shall be a Valid Claim only if such claim has been identified in an office action (or other office communication) issued by the U.S. Patent and Trademark Office in connection with the prosecution of such application (x) as allowable, or (y) allowable but for its dependency on a rejected independent claim (the conditions of (x) and (y) collectively referred to as " Allowable ") during the 10-year period following the Commercial Launch of the first Product, such claim as Allowable Covers the Product, and, during such period, the designation of such claim as Allowable has not been reversed or otherwise rejected in subsequent prosecution of such application and no substantive amendments have been made to such claim (or any claims from which it depends) during prosecution of such application since its designation as Allowable, wherein the substantive amendment(s) results in the claim no longer Covers the Product.

" Value Captured " means the gross amount invoiced on sales of the Products by a Party and its Affiliates and Sublicensees in the Agricultural Field in the Territory. For a Combination Product, the Value Captured shall be determined in accordance with the foregoing sentence, except that the gross amount invoiced on sales of the Combination Product will be reduced on a per unit basis by the invoice amount of the other technology and/or materials in the Combination Product when sold separately.

1.2 Interpretation . 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.

ARTICLE II – LICENSE GRANTS AND RELATED RIGHTS

2.1 License Grants to Licensee . Subject to the terms and conditions of this Agreement, Protiva (and with respect to the Tekmira Patents only, Tekmira) hereby grants to Licensee an irrevocable, worldwide, perpetual (subject to Article VIII), fully paid-up, transferrable (subject to Section 9.4), sublicensable (subject to Section 2.2), exclusive (even as to Protiva, except as provided in Section 2.3, and even as to Tekmira with respect to the Tekmira Patents) right and license under the Protiva Intellectual Property for all purposes in the Agricultural Field, including to Discover, Develop, Commercialize and Manufacture Products, and to discover, develop, commercialize, and manufacture other products and processes that use or employ Protiva Intellectual Property, in the Agricultural Field. In the event Licensee reasonably determines that any Patent or Know-How owned or Controlled by Tekmira or its Affiliate (other than Protiva) to which Licensee does not have a license under this Agreement is relevant to or useful in the composition, formulation, or manufacture of Compounds and/or Formulations and/or their use in the Agricultural Field, then upon Licensee's request, Protiva shall cause Tekmira or such Affiliate to promptly grant a license in and to such Patent or Know-How to Licensee under this Agreement, and such Patent or Know-How shall thereafter be included in Protiva Intellectual Property for all purposes of this Agreement. For the avoidance of doubt, Protiva has not granted to Licensee any right or license to the Protiva Intellectual Property outside of the Agricultural Field.

2.2 Sublicensing . Licensee shall not have the right to sublicense any of the rights or licenses granted to it under this Agreement prior to the first to occur of the Closing or the termination of the Option Agreement; however, in the event Monsanto Canada exercises the Call Option and either acquires all of the outstanding capital stock of Licensee or receives from Licensee an assignment of all of Licensee's rights and obligations under this Agreement, then, following such acquisition or assignment, the following provisions shall apply:

(a) Licensee may grant sublicenses to the Protiva Intellectual Property solely for use in the Agricultural Field; provided , however , that any sublicense granted by Licensee shall be subject and subordinate to the terms and conditions of this Agreement and shall contain terms and conditions consistent with those in this Agreement. Licensee shall assume full responsibility for the performance of all obligations and observance of all terms herein under the licenses granted to it. If Licensee becomes aware of a material breach of any sublicense by a Sublicensee, Licensee shall promptly notify Protiva of the particulars of same and take all reasonable efforts to enforce the terms of such sublicense. Any agreement between Licensee and the Sublicensee shall provide that such Sublicensee may only use the Confidential Information of Protiva in accordance with terms of this Agreement applicable to Licensee's use of such Confidential Information and subject to provisions at least as stringent as those set forth in Article VI, and Protiva shall be an express third party beneficiary of such agreement, including provisions related to use and disclosure of Confidential Information. Subject to the foregoing provisions of this Section 2.2(a), Sublicensees shall have the right to further sublicense Protiva Intellectual Property in the Agricultural Field to Third Parties.

(b) Unless otherwise provided in this Agreement, Licensee shall notify Protiva within thirty (30) days after execution of a sublicense entered into hereunder and provide a copy of the fully executed sublicense agreement to Protiva within the same time, which shall be treated as Confidential Information of Licensee under Article VI.

2.3 Grant Back . Licensee agrees to grant and hereby grants to Protiva a non-exclusive right and license under the Protiva Intellectual Property to Discover and Develop Products in the Agricultural Field for purposes of (a) performing the Services and (b) granting to Monsanto a license to use the Protiva Intellectual Property as set forth in the Protiva-Monsanto Services Agreement. This right and license shall terminate immediately, without notice, upon termination of Protiva's obligation to provide the Services, as set forth in Section 4.4 below.

2.4 Retained Rights . Protiva expressly retains any rights not expressly granted to Licensee under this Article II (or otherwise under this Agreement). Nothing in Section 2.1 limits Protiva's ability to perform its obligations under this Agreement, the Protiva-Monsanto Service Agreement or the Option Agreement. For purposes of clarity and without limitation, Protiva has exclusively retained (even as to Licensee) the right to use and employ Protiva Intellectual Property (alone or with Third Parties) in connection with any and all activities related to the Discovery, Development, Commercialization and manufacture (including Manufacture) of Compounds, Formulations and products outside the Agricultural Field in the Territory.

2.5 Rights in Bankruptcy . All licenses and rights to licenses granted under or pursuant to this Agreement by Protiva to Licensee 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. Licensee, 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) under the Code, Licensee shall be entitled to a complete duplicate of, or complete access to (as Licensee deems appropriate), any such intellectual property and all embodiments of such intellectual property. Such intellectual property and all embodiments thereof shall be promptly delivered to Licensee (a) upon any such commencement of a bankruptcy proceeding upon written request therefore by Licensee, unless Protiva (or its Affiliate) elects to continue to perform all of its obligations under this Agreement or (b) if not delivered under (a) above, upon the rejection of this Agreement by or on behalf of Protiva upon written request therefor by Licensee. The foregoing provisions are without prejudice to any rights Licensee may have arising under the Code or other Applicable Law.

2.6 Diligence . In the event Monsanto Canada exercises the Call Option and either acquires all of the outstanding capital stock of Licensee or receives from Licensee an assignment of all of Licensee's rights and obligations under this Agreement then, following such acquisition or assignment, the following provisions shall apply:

(a) Subject to Section 2.6(c) below, during the period of time beginning upon termination of Protiva's obligation to provide the Services, as set forth in Section 4.4 below, and ending on the expiration of the 10-year period following Commercial Launch of the first Product or earlier date of payment to Protiva pursuant to Section 3.3(a) below (the " Diligence Period "), Licensee shall use commercially reasonable efforts to Develop, Manufacture, and Commercialize a Product.

(b) Whether certain efforts by Licensee are deemed to be "commercially reasonable" for purposes of this Section 2.6 shall be determined in light of all relevant factors in all of the relevant jurisdictions in the Territory, taken as a whole, including but not limited to: the perceived market potential of any Product (including anticipated or actual profit margin); the anticipated level of regulatory approval that may be available for such Product (including any restrictions on the use thereof); the level of intellectual property protection of such Product; the presence of third-party intellectual property that may impact the marketability of such Product (including any claims made or threatened by third parties that the manufacture, marketing or sale of such Product infringes, violates or misappropriates the intellectual property of such third parties); the presence or absence of particularly difficult manufacturing issues; and the expected competitive position of such Product vis-à-vis other products that may have been or may be developed, marketed and sold for the same or similar use, including with respect to the expected or actual efficacy and cost of such Product when compared to such other products. Licensee shall not be deemed to be in breach of this Section 2.6(b) for any particular period unless Licensee's efforts with respect to Products during such period, taken as a whole, or in combination with efforts in prior periods, taken as a whole, are not commercially reasonable.

(c) Licensee may terminate its obligations under this Section 2.6 at any time prior to the expiration of the Diligence Period, effective immediately upon payment to Protiva of an amount equal to **[***]** (the " Diligence Buyout Payment "). In addition, upon such payment, Protiva's rights and Licensee's obligations under Section 3.3 shall terminate and, in no event, shall any payments be made to Protiva pursuant to Section 3.3(a). The amount of the Diligence Buyout Payment shall be reduced, if applicable, in accordance with Monsanto's right of set off and/or any reduction in the amount of the Diligence Buyout Payment as a result of a Change of Control of Protiva or Tekmira, in each case under the Option Agreement.

2.7 Compliance With Applicable Laws . Each Party shall conduct its obligations under this Agreement, and conduct the Discovery, Development, Manufacture and Commercialization of the Products, in all material respects in accordance with Applicable Laws.

ARTICLE III – FINANCIAL PROVISIONS

3.1 Payments for Services . In consideration of the performance by Protiva of the Services, Licensee shall pay to Protiva the following amounts:

(a) **[***]** within five business days of the Effective Date;

(b) **[***]** within five business days of receipt by Licensee of the Option Phase B Initiation Payment (as defined in the Option Agreement); and

(c) **[***]** within five business days of receipt by Licensee of the Option Phase C Initiation Payment (as defined in the Option Agreement).

If Monsanto Canada exercises the Call Option prior to completion of Phase C, Monsanto shall have the right, but not the obligation, to pay Protiva for Services to be performed in any phase subsequent to the phase in which the Call Option was exercised, and Protiva shall perform all Services for which it is paid, subject to Section 4.1 below. For the avoidance of doubt, any release of Protiva's obligation to perform all or part of the Services for any such phase, in accordance with Section 4.1 below, shall not reduce the amount due to Protiva for Services to be performed in such phase, as such amounts are set out in this Section 3.1.

3.2 Payment for License .

(a) As consideration for the Transferred Protiva Rights, and in full satisfaction of the Protiva Purchase Price, the Licensee shall, on the Effective Date, (i) issue to Protiva the Protiva Note (the principal amount of which shall be a one-time, non-refundable, non-creditable amount), (ii) allot and issue to Protiva one Class B Common share without par value in the capital stock of the Licensee as a fully paid and non-assessable share, and (iii) grant to Protiva the rights set out in Section 3.3.

(b) As consideration for the Transferred Tekmira Rights, and in full satisfaction of the Tekmira Purchase Price, the Licensee shall, on the Effective Date, allot and issue to Tekmira one Class A Common share without par value in the capital stock of the Licensee as a fully paid and non-assessable share.

3.3 Other Payments .

(a) Subject to Section 2.6(c) above, Licensee shall additionally pay promptly to Protiva a one-time, non-refundable, non-creditable payment in the amount of **[***]** upon the first to occur, if either, of (i) the Net Sales in the Territory of Products by Monsanto or its Affiliates equals or exceeds **[***]** in any single year during the 10-year period following Commercial Launch of the first Product, or (ii) the aggregate Net Sales in the Territory of Products by Monsanto or its Affiliates equals or exceeds **[***]** cumulatively over the 10-year period following the Commercial Launch of the first such Product (the " Commercial Milestone Payment "). The amount of the Commercial Milestone Payment shall be reduced, if applicable, in accordance with Monsanto's right of set off and/or any reduction in the amount of the Commercial Milestone Payment as a result of a Change of Control of Protiva or Tekmira, in each case under the Option Agreement.

(b) Any payments due from Licensee to Protiva under Section 3.3 of this Agreement that are not paid by the date such payments are due shall bear interest at **[***]** per month from the date such unpaid payments are due until paid in full. The foregoing interest shall be in addition to any other remedies that the Protiva may have pursuant to this Agreement.

(c) During the period of time beginning upon termination of Protiva's obligation to provide the Services, as set forth in Section 4.4 below, and ending on expiration of the 10-year period following Commercial Launch of the first Product (or, if applicable, the earlier date upon which payment is made by Licensee to Protiva pursuant to Section 2.6(c) or Section 3.3(a)) (the " Record Retention Period "), Licensee shall maintain and retain (and shall cause Monsanto and its Affiliates to 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 3.3(a) of this Agreement and, unless payment has been made by Licensee pursuant to Section 2.6(c), then until expiration of the two (2) year period following expiration of the Record Retention Period, 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), subject to reasonable precautions to protection of confidential information of Licensee, Monsanto, or its Affiliates (including Confidential Information), for the purpose of verifying the accuracy of all payments due under Section 3.3(a) of this Agreement. Protiva shall pay the cost of such audit unless it discovers that Licensee has underreported aggregate Gross Profits during any year in the Record Retention Period to Protiva by an amount of at least **[***]** , in which case the costs of such audit shall be borne by Licensee.

3.4 Protiva Subsection 85(1) Election

(a) Protiva and Licensee will jointly make and file an election under subsection 85(1) of the Tax Act (the " **Protiva Election** ") in the prescribed form and within the time required by subsection 85(6) of the Tax Act in respect of the transfer of the Transferred Protiva Rights and will elect therein that the elected amount, which will be deemed to be Protiva's proceeds of disposition and the Licensee's cost of the Transferred Protiva Rights, will be the greater of (i) the principal amount of the Protiva Note, and (ii) Protiva's Tax Value in respect of the Transferred Protiva Rights at the time of the transfer (the " **Protiva Elected Amount** ").

(b) If the Canada Revenue Agency or any other competent authority at any time hereafter proposes to issue or issues any assessment or assessments on the basis that the fair market value of the Transferred Protiva Rights at the time of transfer is greater or less than the Protiva Purchase Price, then:

(i) upon the fair market value of the Transferred Protiva Rights being finally determined by the Agreement of Protiva and the Licensee with the Canada Revenue Agency if they do so agree, or by final determination by a court of competent jurisdiction if they do not, the Protiva Purchase Price will be deemed conclusively to have always been the amount so determined, and this Agreement will be deemed to be amended as of the Effective Date to reflect such Protiva Purchase Price as determined under this Section 3.4(b)(i); and

(ii) if permitted under the Tax Act or the administrative discretion of the Canada Revenue Agency, Protiva at its sole discretion may file an amended election under subsection 85(7.1) of the Tax Act along with the appropriate penalty payment reporting a new fair market value of the Transferred Protiva Rights based on the amounts determined pursuant to section 3.4(b)(i) of this Agreement.

(c) If the Canada Revenue Agency or any other competent authority at any time hereafter proposes to issue or issues any assessment or assessments, on the basis that the Protiva Elected Amount set out in the Protiva Election is greater or less than the applicable Tax Values of the Transferred Protiva Rights, then:

(i) upon the applicable Tax Values being finally determined, by the Agreement of Protiva and the Licensee with the Canada Revenue Agency if they do so agree, or by final determination by a court of competent jurisdiction if they do not, the Protiva Elected Amount will be deemed conclusively to have always been such finally determined Tax Value; and

(ii) if permitted under the Tax Act or the administrative discretion of the Canada Revenue Agency, Protiva at its sole discretion may file an amended election under subsection 85(7.1) of the Tax Act along with the appropriate penalty payment electing such amount as is deemed to be the Protiva Elected Amount under Section 3.4(c)(i).

3.5 Tekmira Subsection 85(1) Election

(a) Tekmira and Licensee will jointly make and file an election under subsection 85(1) of the Tax Act (the " **Tekmira Election** ") in the prescribed form and within the time required by subsection 85(6) of the Tax Act in respect of the transfer of the Transferred Tekmira Rights and will elect therein that the elected amount, which will be deemed to be Tekmira's proceeds of disposition and the Licensee's cost of the Transferred Tekmira Rights, will be Tekmira's Tax Value in respect of the Transferred Tekmira Rights at the time of the transfer (the " **Tekmira Elected Amount** ").

(b) If the Canada Revenue Agency or any other competent authority at any time hereafter proposes to issue or issues any assessment or assessments on the basis that the fair market value of the Transferred Tekmira Rights at the time of transfer is greater or less than the Tekmira Purchase Price, then:

(i) upon the fair market value of the Transferred Tekmira Rights being finally determined by the Agreement of Tekmira and the Licensee with the Canada Revenue Agency if they do so agree, or by final determination by a court of competent jurisdiction if they do not, the Tekmira Purchase Price will be deemed conclusively to have always been the amount so determined, and this Agreement will be deemed to be amended as of the Effective Date to reflect such Tekmira Purchase Price as determined under this Section 3.5(b)(i); and

(ii) if permitted under the Tax Act or the administrative discretion of the Canada Revenue Agency, Tekmira at its sole discretion may file an amended election under subsection 85(7.1) of the Tax Act along with the appropriate penalty payment reporting a new fair market value of the Transferred Tekmira Rights based on the amounts determined pursuant to section 3.5(b)(i) of this Agreement.

(c) If the Canada Revenue Agency or any other competent authority at any time hereafter proposes to issue or issues any assessment or assessments, on the basis that the Tekmira Elected Amount set out in the Tekmira Election is greater or less than the applicable Tax Values of the Transferred Tekmira Rights, then:

(i) upon the applicable Tax Values being finally determined, by the Agreement of Tekmira and the Licensee with the Canada Revenue Agency if they do so agree, or by final determination by a court of competent jurisdiction if they do not, the Tekmira Elected Amount will be deemed conclusively to have always been such finally determined Tax Value; and

(ii) if permitted under the Tax Act or the administrative discretion of the Canada Revenue Agency, Tekmira at its sole discretion may file an amended election under subsection 85(7.1) of the Tax Act along with the appropriate penalty payment electing such amount as is deemed to be the Tekmira Elected Amount under Section 3.5(c)(i).

ARTICLE IV – SERVICES

4.1 General . Subject to the terms and conditions of this Agreement, Protiva agrees to use its reasonable best efforts to provide to Licensee the research services described in the Research Plan as services to be provided by Protiva (the " Services "); provided , however , that if Monsanto Canada exercises the Call Option prior to completion of Phase C, Monsanto, by written notice to Protiva, may release Protiva from some or all of its obligations in respect of (and, for the avoidance of doubt, not expand, absent Protiva's prior written consent) the Services to be provided by Protiva after exercise of the Call Option and until completion of the last phase (i.e., Phase A, Phase B, or Phase C) for which Protiva has been paid for its Services (i.e., through completion of the phase in which the Call Option is exercised and through completion of any subsequent phase for which Protiva has been engaged to provide Services in the manner described in the last paragraph of Section 3.1).

4.2 Operation . Protiva's activities under this Agreement, including without limitation the performance of Services, shall be coordinated by the JRC established pursuant to the Option Agreement in accordance with the terms and conditions thereof. Such coordination shall include a quarterly review by the JRC of research deliverables performed by Protiva for Licensee and relevant supporting documentation. Subject to the oversight and direction of the JRC, Protiva shall be responsible for the administrative management and operations of the Services in accordance with the Research Plan. The Services shall be conducted at and coordinated from the facilities of Protiva under the direction and supervision of a qualified program director employed by Protiva, with the understanding that (a) Protiva shall be responsible for the supply of the Compounds and/or Formulations in accordance with the Research Plan, (b) certain confirmatory activities may be conducted at Protiva as further described in the Research Plan and (c) certain activities may be conducted at Third Party contract facilities selected by and accountable to Protiva as further described in the Research Plan, provided that such Third Parties are bound by written agreements regarding confidentiality and ownership of intellectual property consistent with the provisions of this Agreement.

4.3 Data and Reports . Subject to the confidentiality provisions of this Agreement and the Option Agreement, Protiva shall provide to Licensee and the JRC (a) a summary report of all Services performed by Protiva and data generated in the performance of such Services on a quarterly basis or as otherwise agreed upon by the JRC; (b) as requested by the JRC, the actual raw data generated by or on behalf of Protiva in performance of the Services; and (c) such other reports, data, and information as may be required pursuant to the Research Plan ((a), (b), and (c) collectively, the " Protiva Research Data "); provided, however, that Protiva shall not provide to Licensee or the JRC the chemical compositions of any Compounds or Formulations Discovered by, Developed by, that come under the Control of, or that are otherwise used by or on behalf of, Protiva or any of its Affiliates under the Research Program or in connection with the provision of Services that are the Confidential Information of Protiva, unless Monsanto specifically requests disclosure of such chemical compositions, in which event such disclosure shall be made subject to the Trade Secret Disclosure Provisions.

4.4 Termination of Obligations . Protiva's obligation to provide Services under this Agreement shall terminate on the first to occur of (a) termination of this Agreement, (b) Monsanto Canada's exercise of the Call Option following completion of Phase C, or (c) following Monsanto Canada's exercise of the Call Option prior to completion of Phase C, upon Protiva's completion of Services to be provided by Protiva pursuant to this Agreement through completion of the phase (i.e., Phase A, Phase B, or Phase C) during which the Call Option was exercised and any subsequent phase for which Protiva is paid for its Services in accordance with Section 3.1 above.

ARTICLE V – INTELLECTUAL PROPERTY

5.1 Ownership . Subject to the licenses granted by Protiva herein, Protiva is and shall at all times remain the owner of the Protiva Intellectual Property, including, for the avoidance of doubt, Protiva Project Patents. As more particularly set forth in the Protiva-Monsanto Services Agreement, and subject to the license granted by Monsanto in the Protiva-Monsanto Services Agreement, Monsanto is and shall at all times remain owner of any Joint Project Intellectual Property.

5.2 Prosecution and Maintenance of Patents .

(a) Subject to Section 5.6, Protiva shall have the sole right and responsibility, in its sole discretion and at its sole cost and expense, to file, prosecute, maintain and/or abandon patent protection in the Territory for Protiva Background Patents.

(b) During the Term, decisions regarding the filing of Patent protection in the Territory for Protiva Project Inventions and decisions regarding the prosecution, maintenance and/or abandonment of Protiva Project Patents in the Territory shall be made by Protiva and/or the JRC in accordance with the applicable provisions of the Option Agreement and, subject to and in accordance with such provisions, Protiva shall be responsible for implementing Protiva's and/or the JRC's decisions regarding the filing, prosecution, maintenance, and/or abandonment of Protiva Project Patents in the Territory. Except as otherwise set out in the Option Agreement, all costs and fees incurred in connection with the filing, prosecution, maintenance and/or abandonment of all Protiva Project Patents through the Exercise Date (if the Call Option is exercised) shall be the sole responsibility of Protiva; all costs and fees incurred in connection with the filing, prosecution, maintenance and/or abandonment of all Protiva Project Patents after the Exercise Date (if the Closing occurs) shall be the sole responsibility of Licensee.

5.3 Third-Party Infringement of Protiva Background Patents .

(a) Each Party shall promptly report in writing to the other Party (and, prior to the Closing, to the JRC) during the Term known or suspected commercially relevant infringement by a Third Party of any of the Protiva Background Patents in any field and any known or suspected infringement by a Third Party of any of the Protiva Background Patents in the Agricultural Field of which such Party becomes aware and shall 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 Background Patents, or to take such other actions as Protiva, in its sole discretion, deems appropriate with respect to such infringements or suspected infringements (" Background Patent Infringement Action "). Protiva shall notify Licensee promptly after initiating any Background Patent Infringement Action.

(c) After Closing (if Closing occurs), then with respect to any Background Patent Infringement Action directed to infringement occurring at least in part in the Agricultural Field: (i) Licensee may join such Infringement Action as a party if it has standing to do so (at its own cost and expense), may retain counsel at its own cost and expense to provide advice to Licensee regarding such Infringement Action, and may share all information regarding the Infringement Action provided by Protiva with such counsel, and, if Licensee has joined such Infringement Action, such counsel shall be permitted to attend meetings, discussions, or other activities relating to the Infringement Action on behalf of Licensee; and (ii) Provita agrees to give due consideration to any recommendations or suggestions of Licensee in connection with the Infringement Action, but shall not be obligated to implement or follow any such recommendations or suggestions. After Closing (if Closing occurs), Protiva shall not enter into any settlement or compromise in connection with any Background Patent Infringement Action that would eliminate, diminish, or otherwise modify any right, title, or interest of the Licensee in any Protiva Intellectual Property or that would require any payments, concessions, or otherwise bind the Licensee, without the Licensee's prior written consent, which consent shall not be unreasonably withheld; for the avoidance of doubt, any settlement or compromise that permits continuation of Licensee's rights in and to Protiva Intellectual Property in the same manner and subject to the same terms and conditions as set forth in this Agreement shall not require Licensee's prior consent. Licensee shall provide reasonable cooperation and assistance in connection with a Background Patent Infringement Action initiated by the Initiating Party (including being joined as a party in such Background Patent Infringement Action) at Protiva's reasonable request and sole cost.

5.4 Third-Party Infringement of Protiva Project Patents .

(a) Each Party shall promptly report in writing to the other Party (and, prior to the Closing, to the JRC) during the Term known or suspected commercially relevant infringement by a Third Party of any of the Protiva Project Patents in any field and any known or suspected infringement by a Third Party of any of the Protiva Project Patents in the Agricultural Field of which such Party becomes aware and shall provide the other Party with all evidence supporting or relating to such infringement in its possession.

(b) Protiva shall have the right, but not the obligation, to initiate an infringement or other appropriate suit with respect to infringements or suspected infringements of any of the Protiva Project Patents, or to take such other actions as Protiva, in its sole discretion, deems appropriate with respect to such infringements or suspected infringements (" Project Patent Infringement Action "). If Protiva declines to commence a Project Patent Infringement Action with respect to a particular actual or threatened infringement of any issued patent within the Protiva Project Patents (an " Identified Infringement ") within sixty (60) days following its receipt of a written request from Licensee that it initiate a Project Patent Infringement Action with respect to such Identified Infringement, or if Protiva otherwise fails to confirm that it will commence a Project Patent Infringement Action with respect to such Identified Infringement within such sixty (60) day period, then Licensee may thereafter commence a Project Patent Infringement Action with respect to such Identified Infringement. Licensee shall use reasonable best efforts to notify Protiva prior to initiating any Project Patent Infringement Action and shall continue to inform Protiva of the status of any Project Patent Infringement Action initiated by Licensee, including by responding to Protiva's reasonable requests for status reports, providing drafts of substantive filings of Licensee prior to the due date for such filings, and providing copies of substantive filings of any other party to any such Project Patent Infringement Action promptly after receiving such filings. If any monetary judgment or settlement is recovered in connection with any Project Patent Infringement Action initiated by Licensee or Protiva in accordance with this Section 5.4(b), then, after Licensee or Protiva, as applicable, recoups actual costs and reasonable expenses associated with such Project Patent Infringement Action, (i) then if the monetary judgment or settlement is primarily attributable to infringement in the Agricultural Field, Licensee shall be entitled to receive from the remainder an amount equal to all direct damages attributable to infringement in the Agricultural Field awarded in such judgment or payable under such settlement; Protiva shall then be entitled to receive from the remainder after such payment to Licensee, if any, an amount equal to all direct damages attributable to infringement outside of the Agricultural Field awarded in such judgment or payable under such settlement; and the balance, if any, remaining after such payments to Licensee and Protiva shall be allocated and payable **[***]** to Licensee and **[***]** to Protiva; or (ii) if the monetary judgment or settlement is primarily attributable to infringement outside of the Agricultural Field, Protiva shall be entitled to receive from the remainder an amount equal to all direct damages attributable to infringement outside of the Agricultural Field awarded in such judgment or payable under such settlement, Licensee shall then be entitled to receive from the remainder after such payment to Protiva, if any, an amount equal to all direct damages attributable to infringement in the Agricultural Field awarded in such judgment or payable under such settlement; and the balance, if any, remaining after such payments to Protiva and Licensee shall be allocated and payable **[***]** to Licensee and **[***]** to Protiva.

(c) Protiva shall use reasonable best efforts to notify Licensee prior to initiating any Project Patent Infringement Action and shall continue to inform Licensee of the status of any Project Patent Infringement Action initiated by Protiva, including by responding to Licensee's reasonable requests for status reports, providing drafts of substantive filings of Protiva prior to the due date for such filings, and providing copies of substantive filings of any other party to any such Infringement Action promptly after receiving such filings.

(d) Each Party (as a " Non-Initiating Party "), with respect to a Project Patent Infringement Action initiated by the other Party (as an " Initiating Party "), may join such Infringement Action as a party if it has standing to do so (at its own cost and expense), may retain counsel at its own cost and expense to provide advice to the Non-Initiating Party regarding such Infringement Action, and may share all information regarding the Infringement Action provided by the Initiating Party with such counsel, and, if the Non-Initiating Party has joined such Infringement Action, such counsel shall be permitted to attend meetings, discussions, or other activities relating to the Infringement Action on behalf of the Non-Initiating Party. The Initiating Party agrees to give due consideration to any recommendations or suggestions of the Non-Initiating Party in connection with a Project Patent Infringement Action, but shall not be obligated to implement or follow any such recommendations or suggestions; provided however, that the Initiating Party shall not enter into any settlement or compromise in connection with a Project Patent Infringement Action that would eliminate, diminish, or otherwise modify any right, title, or interest of the Non-Initiating Party in any Protiva Intellectual Property or that would require any payments, concessions, or otherwise bind the Non-Initiating Party, without the Non-Initiating Party's prior written consent, which consent shall not be unreasonably withheld; for the avoidance of doubt, any settlement or compromise that permits continuation of the Non-Initiating Party's rights in and to Protiva Intellectual Property in the same manner and subject to the same terms and conditions as set forth in this Agreement shall not require the Non-Initiating Party's prior consent. The Non-Initiating Party shall provide reasonable cooperation and assistance in connection with a Project Patent Infringement Action initiated by the Initiating Party (including being joined as a party in such Project Patent Infringement Action) at the Initiating Party's reasonable request and sole cost.

5.5 Defense of Claims Brought by Third Parties . Each Party shall promptly notify the other Party (and, prior to the Closing, the JRC) if it becomes aware of any claim that Licensee's actual use or practice of Compounds or Formulations within the Protiva Intellectual Property, or Licensee's methods of creating or using such Formulations or Compounds, 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 in the Agricultural Field. In any such instance, the Parties shall cooperate and shall mutually agree upon an appropriate course of action; provided, however, that in the absence of any such agreement, (i) any such matter relating to Protiva Project Patents (such matter a " JRC Protiva Project Infringement Matter ") shall be referred to the JRC to be addressed in the manner set forth in the Option Agreement, and (ii) Protiva shall have sole right to determine what action, if any, should be taken in respect of Protiva Background Patents. Each Party shall provide to the other Party (and, prior to the Closing, the JRC) copies of any notices it receives from Third Parties regarding any patent nullity actions regarding the Protiva Background Patents or the Protiva Project Patents, any declaratory judgment actions and any alleged infringement or misappropriation of Third Party intellectual property rights arising out of Licensee's use or practice of the Protiva Intellectual Property in connection with its exercise of its license under Section 2.1. Each Party shall be responsible for its own costs incurred pursuant to this Section 5.5; provided, however, that nothing in this Section 5.5 or elsewhere in this Agreement shall be deemed to eliminate, reduce, or otherwise modify any liability or obligation of Protiva in respect of the Protiva Intellectual Property or Licensee's (or its Sublicensees') use or practice of the Protiva Intellectual Property in connection with its exercise of its license under Section 2.1, including but not limited to any such liability or obligation that may arise out of any representation, warranty, or covenant made by Protiva under the Option Agreement or any other Transaction Agreement; and provided further, however, that nothing in this Section 5.5 shall be deemed to limit or eliminate a Party's right to defend actions initiated by a Third Party against such Party, except to the extent such rights may be limited under any indemnification provisions applicable to such actions.

5.6 Disclosures and Opt-In Rights Regarding Protiva Background Patents . If, during the Term, Protiva decides not to pay the maintenance fee, annuity fee, or similar fee due on any Protiva Background Patent or decides to abandon or discontinue prosecution of any Protiva Background Patent (each a " Proposed Abandonment ") and if (a) such Proposed Abandonment will not be accompanied by the proper filing of a continuation or continuation-in-part application for a Protiva Background Patent and (b) there will be no remaining Protiva Background Patent in the same country or jurisdiction in which the abandoned or discontinued Protiva Background Patent was filed that will substantially maintain the value of Licensee's exclusive license under the Protiva Background Patents in the Agricultural Field, Protiva shall notify Licensee (and, prior to the Closing, Monsanto) at least sixty (60) days in advance of any applicable administrative deadline, maintenance fee due date, or response date after or upon which such Protiva Background Patent will be or become abandoned or trigger a similar loss of rights in jurisdictions other than the United States (the " Response Deadline "), such notice to include the Response Deadline. Upon written request of Licensee (or, prior to the Closing, Monsanto), Protiva shall promptly assign to Licensee (or, prior to the Closing, Monsanto) all of its right, title, and interest in and to such Protiva Background Patent unless (x) such Protiva Background Patent is assigned to a Third Party who takes all steps necessary to prevent the Proposed Abandonment and (y) Licensee retains its license to such Protiva Background Patent on the terms and conditions set forth in this Agreement; Protiva shall thereafter have no further right, title, or interest in or to such Protiva Background Patent, except that Protiva shall thereafter have a perpetual, fully paid-up, non-exclusive right and license under such Protiva Background Patent for all uses in the Protiva Field. To the extent necessary or appropriate to prevent the abandonment or similar loss of rights of a Protiva Background Patent assigned or to be assigned to Licensee (or, prior to the Closing, to Monsanto), Protiva shall take such other steps (including submission of filings or payments on behalf of Licensee or Monsanto) that are reasonably requested by Licensee (or Monsanto), at Licensee's (or Monsanto's) sole cost and expense.

5.7 Joint Research Committee Oversight . From and after termination of the Option Agreement, then until the disbandment of the JRC by unanimous vote of the JRC at any time after expiration of the last to expire Valid Claim of a Protiva Project Patent or a Joint Project Patent (the " Continuing JRC Term "), the JRC shall remain in existence and shall perform the functions described in this Agreement and any other Transaction Agreements according to the general processes and procedures set out in the Option Agreement (as such processes and procedures may be modified by the unanimous vote of the JRC). For the avoidance of doubt, the JRC's oversight of Protiva Project Patents shall terminate if this Agreement terminates.

ARTICLE VI – CONFIDENTIAL INFORMATION AND PUBLICITY

6.1 Non-Disclosure of Confidential Information . Each Party agrees that, for itself and its Affiliates, until the first to occur of (i) **[***]** or (ii) **[***]** , 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 or (b) use Confidential Information for any purpose except those explicitly licensed or otherwise authorized or permitted by this Agreement or any other Transaction Agreement.

6.2 Exceptions . The obligations in Section 6.1 will not apply with respect to any portion of the Confidential Information that the Receiving Party can show by competent 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. Specific Confidential Information disclosed by a Disclosing Party will 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 and provided further that 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. 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.

6.3 Permitted Uses . Confidential Information of a Disclosing Party may be used by the Receiving Party in the performance of its obligations under any Transaction Agreement, as otherwise expressly authorized in any Transaction Agreement or as expressly authorized by the Disclosing Party in writing. Confidential Information that is Protiva Intellectual Property may be used by Licensee subject to and in accordance with the provisions of this Agreement applicable to Licensee's license to Protiva Intellectual Property. Licensee shall take steps to maintain the confidentiality of such Confidential Information that are consistent with the steps it takes to maintain the confidentiality of its own most-valuable confidential information, 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 Licensee'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 6.4 below.

6.4 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 any Party hereto, in order to comply with applicable non-patent law (including any securities law or regulation 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 any Party hereto, in connection with prosecuting or defending litigation; (iii) by any Party hereto, in connection with filing and prosecuting Protiva Project Patents and Joint Project Patents only in a manner that complies with such Party's rights and obligations in connection with such matters as set out in the Transaction Agreements; (iv) subject to the proviso below, by Licensee, its Sublicensees, or their sublicensees in connection with any legal or regulatory requirements related to the development, sale, offer for sale, use or manufacture of commercial products (or potential commercial products) that use or employ Protiva Intellectual Property, such as labeling requirements, disclosures in connection with obtaining regulatory approvals, and the like, so long as the discovery, development, use, manufacture, and commercialization of such products has been and is performed in a manner that complies with the terms and conditions of Licensee's license to such Protiva Intellectual Property and reasonable steps shall be taken to maintain the confidentiality of said Confidential Information even when disclosed for legal or regulatory purposes; (v) subject to the proviso below, by the Licensee, to its Affiliates, permitted acquirers or assignees under the Transaction Agreements and its or any of their research collaborators, subcontractors, lenders (but, with respect to lenders, only Confidential Information related to the terms and conditions of the Transaction Agreements and financial information related thereto), and each of the Licensee's and its Affiliates' respective directors, employees, contractors and agents; and (vi) subject to the proviso below, by Protiva, to its Affiliates, permitted acquirers or assignees under the Transaction Agreements and its or any of their research collaborators, subcontractors, lenders (but, with respect to lenders, only Confidential Information related to the terms and conditions of the Transaction Agreements and financial information related thereto), and Protiva's and its Affiliates' respective directors, employees, contractors and agents, provided, that (a) with respect to clause (i), (ii) and (iv) where legally permissible, (1) 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, and (2) consistent with applicable law or regulation, 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, and (b) with respect to clause (v) and (vi), each Person to whom Confidential Information is disclosed must be bound prior to disclosure by confidentiality and non-use restrictions at least as restrictive as those contained in this Agreement (other than investment bankers, investors and lenders, who must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

ARTICLE VII – INDEMNIFICATION AND INSURANCE

7.1 Protiva Indemnification . Protiva agrees to indemnify Licensee and its Affiliates, and their respective agents, directors, officers, employees, representatives, successors and permitted assigns (the " Licensee 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 an Licensee 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 any breach of any representation, warranty or covenant by Protiva under this Agreement or Protiva's gross negligence or willful misconduct. The foregoing indemnification shall not apply to the extent that any Losses are due to (a) a breach of any of Licensee's representations, warranties, covenants and/or obligations under this Agreement or (b) Licensee's gross negligence or willful misconduct.

7.2 Licensee Indemnification . Licensee 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 (a) any claim, suit, demand, investigation or proceeding brought by a Third Party based on (i) any breach of any representation, warranty or covenant by Licensee under this Agreement, or (ii) Licensee's gross negligence or willful misconduct, or (b) a Third Party's direct damages resulting from any development or Commercialization of any Product or products or processes that use or employ Protiva Intellectual Property. In addition to the limitations set forth in the preceding sentence, the foregoing indemnification obligations shall not apply to the extent that any Losses are due to (x) a breach of any of Protiva's representations, warranties, covenants and/or obligations under this Agreement, (y) Protiva's gross negligence or willful misconduct, or (z) any of the following occurring prior to or at Closing (if Closing occurs): (A) any breach of any representation, warranty or covenant by Licensee under this Agreement; (B) Licensee's gross negligence or willful misconduct; or (C) a breach of any of Protiva's representations, warranties, or covenants directed to Protiva Intellectual Property or the Protiva License under the Option Agreement.

7.3 Tender of Defense; Counsel . Any Person (the " Indemnified Party ") seeking indemnification under 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 such section. 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 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, upon its written confirmation of its obligation to indemnify the Indemnified Party in accordance with this Article VII, 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 twenty (20) calendar days 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 conduct the defense of the Third Party Claim 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 (a) does not expressly unconditionally release all applicable Indemnified Parties and their Affiliates from all Liabilities with respect to such Third Party Claim or (b) imposes injunctive or other equitable relief against the Indemnified Party or any of its Affiliates, (c) involves any admission of criminal or similar liability, or (d) 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 S ection 7.3 , (a) the Indemnified Party may defend against the Third Party Claim in any manner it reasonably may deem appropriate, and (b) the Indemnifying Party will 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.

7.4 Insurance . Each Party shall maintain insurance, including product liability insurance, with respect to its activities under this Agreement regarding Products 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, 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 Licensee is an Affiliate of Protiva, Licensee shall have satisfied its obligations under this Section 7.4 provided it is covered by Protiva's existing insurance policies.

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 Limitations on Termination Rights . Prior to the first to occur of the Closing or the termination of the Option Agreement, this Agreement shall not and may not be terminated by either Party for any reason. If the Option Agreement terminates and the Closing has not occurred prior to such termination, Protiva may terminate this Agreement in its sole discretion by written notice to Licensee.

8.3 Post-Closing Termination for Material Breach . If the Closing occurs, then in the event of a material breach of this Agreement by Licensee after the Closing, Protiva may provide notice to Licensee setting forth the nature of the breach and a description of the facts underlying the breach sufficient to identify the breach. If Licensee has not cured such breach or proposed a reasonably satisfactory plan to cure or otherwise remedy such breach within ninety (90) days from the date of receipt of such notice of breach, Protiva may provide a notice of termination to Licensee and this Agreement shall terminate ninety (90) days after such notice of termination unless the breach is cured to the reasonable satisfaction of Protiva or unless Licensee has begun to implement a reasonably satisfactory plan to cure or otherwise remedy such breach within ninety (90) days from the receipt of such notice of termination. Notwithstanding the foregoing, or any termination of Licensee's license pursuant to Section 8.5 below, with respect to any sublicense entered into by Licensee for which the Sublicensee is not the cause of the material breach that resulted in the termination of this Agreement, then upon the assignment to Protiva of all rights of Licensee under such sublicense, Protiva shall assume those obligations of Licensee to such Sublicensee under such sublicense that are within the scope of Protiva's obligations to Licensee under this Agreement; all other obligations to the Sublicensee under such sublicense, and all liabilities of Licensee to such Sublicensee, shall remain the sole and exclusive obligations and liabilities of Protiva, and nothing in this Section 8.3 shall be deemed to expand, increase, or otherwise modify Protiva's obligations or liabilities under this Agreement.

8.4 Challenges of Protiva's Patents . If Licensee or any of its Affiliates shall (a) commence or participate in any action or proceeding (including any patent opposition or re-examination proceeding), or otherwise assert in writing any claim, challenging or denying the validity of any of the Protiva Background Patents or Protiva Project Patents or any claim thereof or (b) actively assist any other Person in bringing or prosecuting any action or proceeding (including any patent opposition or re-examination proceeding) challenging or denying the validity of such Patents or any claim thereof, Protiva will have the right to give notice to Licensee (which notice must be given, if at all, within ninety (90) days after Tekmira's CEO first learns of the foregoing) that the licenses granted by Protiva to such Patent will terminate in ninety (90) days following such notice, and, unless Licensee and/or its Affiliate, as applicable, withdraws or causes to be withdrawn all such challenge(s) within such ninety-day period, such licenses will so terminate.

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 the 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 ninety (90) days 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 Licensee (as the Solvent Party) pursuant to this Section 8.5 shall be in addition to, and not in lieu of, Licensee's rights and remedies under Section 2.5 above.

8.6 Consequences of Termination; Survival .

(a) In the event this Agreement is properly terminated in accordance with its terms, then except as provided in the Protiva-Monsanto Services Agreement, Licensee's rights and licenses under the Protiva Intellectual Property shall terminate upon the effective date of such termination. 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 ARTICLE I – (Definitions), ARTICLE VI – (Confidential Information), ARTICLE VII – (Indemnification), and ARTICLE IX – (Miscellaneous) shall survive any expiration or termination of this Agreement.

(b) Notwithstanding anything to the contrary contained in this Agreement, if it is determined that Protiva has breached its representation and warranty in Section 9.1(b)(iii), Licensee's sole and exclusive remedy shall be to require Tekmira or its Affiliate, as applicable, to grant to Licensee a license under its Patents or Know-How for all purposes in the Agricultural Field and such Patents and/or Know-How shall thereafter be included within Protiva Intellectual Property for all purpose of this Agreement.

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 will have no adequate remedy at law, the other Party may suffer irreparable damage and, accordingly, shall 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 obtain 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 Licensee .

(i) Each Party hereby represents and warrants to the other Party as of the Effective Date:

(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 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) laws of general application relating to bankruptcy, insolvency and the relief of debtors, and (B) rules of law governing specific performance, injunctive relief and other equitable remedies.

(d) It has never approved or commenced any proceeding, or made any election contemplating, the winding up or cessation of its business or affairs or the assignment of material assets for the benefit of creditors. To such Party's knowledge, no such proceeding is pending or threatened.

(ii) Each Party acknowledges and agrees that the other Party has not made any representation or warranty under this Agreement that it has or can provide all the rights that are necessary or useful to Research, Develop or Commercialize a Product; provided, however, that nothing in this Section 9.1(a)(ii) or elsewhere in this Agreement shall be deemed to eliminate, reduce, or otherwise modify any liability or obligation of Protiva or Licensee that may arise out of any representation, warranty, or covenant made by Protiva or Licensee under the Option Agreement or any other Transaction Agreement.

(iii) Each Party represents and warrants to the other Party that as of the Effective Date and as of Closing it has the right to grant to such other Party, its Affiliates and Sublicensees the licenses granted hereunder and has not granted any conflicting rights to any other Person.

(b) Protiva Representations, Warranties, and Covenants. Protiva hereby represents, warrants, and covenants to Licensee that:

(i) To Protiva's Knowledge, except as set forth on Schedule 9.1(b), the conception, development and reduction to practice of the Protiva Intellectual Property licensed to Licensee under this Agreement did not constitute or involve the infringement, misappropriation, or other violation of trade secrets or other rights (including intellectual property rights) or property related to polynucleotide delivery in biological systems of any Person anywhere in the Territory.

(ii) If a Compound or Formulation is provided or created by Protiva or its Affiliate in connection with the Research Program, the use and employment of which as contemplated by the Research Program or this Agreement (including but not limited to in connection with the development, Manufacture, or Commercialization of any Product or the development, manufacture, or commercialization of any other product or process that uses or employs Protiva Intellectual Property) would, to the Knowledge of Protiva, infringe upon or misappropriate or otherwise violate the Intellectual Property of any Third Party, then Protiva shall promptly (and, in any event, prior to or contemporaneously with providing such Compound or Formulation to Monsanto under the Protiva-Monsanto Services Agreement) provide written notice thereof to the JRC;

(iii) Except for the Tekmira Patents, as of the Effective Date, neither Tekmira nor any of its Affiliates (other than Protiva) owns or Controls (including by joint ownership) any Patents or Know-How relevant to or useful in the composition, formulation, or manufacture of Compounds and/or Formulations and their use in the Agricultural Field;

(iv) Neither Protiva nor any of its Affiliates has assigned, transferred, conveyed or otherwise encumbered its right, title and interest in the Protiva Intellectual Property in a manner that conflicts with any rights granted to Licensee hereunder;

(v) In the provision of Services under this Agreement, and except as disclosed in accordance with Section 9.1(b)(ii) above, Protiva will not Knowingly infringe, misappropriate, or otherwise violate any trade secrets or other rights (including intellectual property rights) or property of any Person anywhere in the Territory; and

(vi) During the Term, neither Tekmira nor any of its Affiliates will grant a license, sublicense or other right, title, or interest in or to any Patents or Know-How it owns or Controls (including by joint ownership) as of the Effective Date to any Third Party for use in the Agricultural Field.

(vii) Notwithstanding Sections 9.1(b)(i) and 9.1(b)(v) above, Licensee agrees and acknowledges that Protiva makes no representation, warranty or covenant regarding whether any nucleic acid molecules provided by Monsanto and used by Protiva in the performance of the Research Plan, or used by Licensee in connection with the development, Manufacture, or Commercialization of any Product or the development, manufacture, or commercialization of any other product or process that uses or employs Protiva Intellectual Property infringe, misappropriate, or otherwise violate the trade secrets or other rights (including intellectual property rights) or property of any Person anywhere in the Territory.

(c) 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 WITHOUT LIMITATION, 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. Nothing in this Section 9.1(c) or elsewhere in this Agreement shall be deemed to eliminate, reduce, or otherwise modify any liability or obligation of Protiva or Licensee that may arise out of any representation, warranty, or covenant made by Protiva or Licensee under the Option Agreement or any other Transaction Agreement.

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 THE PROVISION OF THE SERVICES HEREUNDER 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, INCLUDING, WITHOUT LIMITATION, CLAIMS FOR LOSS OF GOODWILL OR LOST PROFITS, 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 OR ANY DAMAGES THAT MAY BE AVAILABLE TO A PARTY AS A RESULT OF ANOTHER PARTY'S BREACH OF ITS OBLIGATIONS UNDER ANY OTHER TRANSACTION AGREEMENT, SUBJECT TO THE LIMITATIONS SET FORTH THEREIN.

9.4 Assignment . Licensee may not assign or otherwise transfer this Agreement or any of its rights and obligations under this Agreement prior to the earlier of the Closing or the termination of the Option Agreement; provided , however , that Licensee may freely assign its rights and obligations hereunder to Monsanto upon the Closing so long as (a) Monsanto Canada exercises the Call Option and (b) Monsanto Canada expressly assumes in writing Licensee's rights and obligations herein. Protiva may not assign or otherwise transfer this Agreement or any of its rights and obligations under this Agreement at any time without the prior written consent of Monsanto. 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. No assignment by Protiva or any of its Affiliates of any right, title, or interest in or to the Protiva Intellectual Property shall extinguish, limit, or otherwise modify any rights granted to Licensee in or to such Protiva Intellectual Property, or the exclusivity of such rights.

9.5 Notices .

Notices to Licensee shall be addressed to:

Protiva Agricultural Development Company Inc.
c/o Protiva Pharmaceuticals Corporation
100-8900 Glenlyon Parkway
Burnaby, B.C.
Canada V5J 5J8
Attention: President & CEO
Facsimile No.: (604) 630-5103

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 52 nd Street
New York, NY 10019
Attention: R. King Milling
Facsimile No.: (212) 506-5151

Either Party may change its address by giving notice to the other Party 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; Jurisdiction . 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. In the event any action shall be brought to enforce or interpret the terms of this Agreement, the Parties agree that such action will be brought in the State or Federal courts located in New York, New York. Each of the Parties hereby irrevocably submits with regard to any action or proceeding for itself and in respect to its property, generally and unconditionally, to the nonexclusive jurisdiction of the aforesaid courts. Each of the Parties hereby irrevocably waives, and agrees not to assert, by way of motion, as a defense, counterclaim or otherwise, in any action or proceeding with respect to this Agreement, (a) any claim that it is not personally subject to the jurisdiction of the above-named courts for any reason other than the failure to lawfully serve process, (b) that it or its property is exempt or immune from jurisdiction of any such court or from any legal process commenced in such courts (whether through service of notice, attachment prior to judgment, attachment in aid of execution of judgment, execution of judgment or otherwise), and (c) to the fullest extent permitted by Applicable Law, that (i) the suit, action or proceeding in any such court is brought in an inconvenient forum, (ii) the venue of such suit, action or proceeding is improper, and (iii) this Agreement, or the subject matter hereof, may not be enforced in or by such courts.

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 shall be construed and enforced as if the Agreement did not contain the particular provisions held to be unenforceable, provided that the Parties 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 of a breach or default of any provision of this Agreement by the other Party 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 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.

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) and the other Transaction Agreements contain the entire understanding of the Parties 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 with respect to the subject matter hereof and thereof. This Agreement (including the attachments hereto) may be amended only by a writing signed by (a) each of the Parties and (b) Monsanto Canada.

9.12 Waiver of Rule of Construction . Each Party 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 any Party to this Agreement, shall have or acquire any rights by reason of this Agreement; provided, however, that Monsanto Canada shall be an express third party beneficiary of this Agreement.

9.14 Further Assurances . Each Party shall provide such further documents or instruments required by the other Party 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, 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, Licensee and Protiva have set their hands to this License and Services Agreement as of the date first written above.

PROTIVA AGRICULTURAL DEVELOPMENT COMPANY, INC.

By: _____
Name:
Title:

TEKMIRA PHARMACEUTICALS CORPORATION

By: _____
Name:
Title:

PROTIVA BIOTHERAPEUTICS INC.

By: _____
Name:
Title:

EXHIBIT A

[***]

Exhibit 21.1

Tekmira Pharmaceuticals Corporation

List of Subsidiaries

Name	Jurisdiction
Protiva Biotherapeutics Inc.	Canada
Protiva Biotherapeutics (USA), Inc.	United States of America
Protiva Agricultural Development Company Inc.	Canada

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 (No. 333- 194068) on Form F-10 and registration statement (No. 333-186185) on Form S-8 of Tekmira Pharmaceuticals Corporation of our report dated March 5, 2014, with respect to the consolidated balance sheets of Tekmira Pharmaceuticals Corporation as of December 31, 2013 and 2012, 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, 2013, which report appears in the December 31, 2013 annual report on Form 10-K of Tekmira Pharmaceuticals Corporation.

/s/ KPMG LLP

Vancouver, Canada
March 26, 2014

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) D isclosed 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. T he 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 27, 2014

/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) D isclosed 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 27, 2014

/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, 2013, 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 27, 2014

/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, 2013, 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 27, 2014

/s/ Bruce Cousins

Name: Bruce Cousins
Title: Executive Vice President, Finance and Chief Financial Officer