



**TEKMIRA PHARMACEUTICALS  
CORPORATION**

2011 Annual Report

## **TEKMIRA PHARMACEUTICALS CORPORATION**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND OPERATIONS**

**March 27, 2012** / *This management discussion and analysis (MD&A) for the year ended December 31, 2011 should be read in conjunction with the MD&A and the audited consolidated financial statements and related notes for the year ended December 31, 2011. We have prepared this MD&A with reference to National Instrument 51-102 "Continuous Disclosure Obligations" of the Canadian Securities Administrators. Under the United States/Canada Multijurisdictional Disclosure System, we are permitted to prepare this MD&A in accordance with the disclosure requirements of Canada, which are different from those of the United States. This MD&A and our consolidated financial statements are prepared in accordance with generally accepted accounting principles used in the United States of America (U.S. GAAP). All amounts are expressed in Canadian dollars unless otherwise indicated. Unless the context otherwise requires, all references to "Tekmira," the "Company," "we," "us," and "our" refer to Tekmira Pharmaceuticals Corporation, including all of its subsidiaries. Additional information relating to Tekmira, including the Company's December 31, 2011 Form 20-F is available at the SEDAR website at [www.sedar.com](http://www.sedar.com) or the EDGAR website at [www.sec.gov/edgar](http://www.sec.gov/edgar).*

### **FORWARD-LOOKING STATEMENTS**

This discussion and analysis contains "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws (collectively, "forward-looking statements"). Forward-looking statements are generally identifiable by use of the words "believes," "may," "plans," "will," "anticipates," "intends," "budgets," "could," "estimates," "expects," "forecasts," "projects" and similar expressions, and the negative of such expressions. Forward-looking statements in this MD&A include statements about Tekmira's strategy, future operations, clinical trials, prospects and the plans of management; RNAi (ribonucleic acid interference) product development programs; estimates of the number of clinical development programs to be undertaken by Tekmira and its product development partners; selection of additional product candidates; timing of release of clinical data; the quantum and timing of potential funding; use of lipid nanoparticle (LNP) technology by Tekmira's licensees; the effects of Tekmira's products on the treatment of elevated low-density lipoprotein (LDL) cholesterol, cancer and infectious disease and alcohol dependence; the ALN-VSP, ALN-TTR, and ALN-PCS product development programs of Alnylam Pharmaceuticals, Inc.; Tekmira's expectations with respect to existing and future agreements with third parties; statements about the initiation and details of the TKM-Ebola Phase 1 human clinical trial; statements about the nature, prospects and anticipated timing to resolve the Tekmira's litigation with Alnylam and AlCana Technologies, Inc., including the patent infringement lawsuit; the nature, scope and quantum of damages sought by Tekmira from Alnylam and AlCana; statements about the injunction granted by the Supreme Court of British Columbia against certain individuals from AlCana; measures taken to ensure that Tekmira can pursue the litigation with Alnylam and AlCana without interruption to Tekmira's core business activities; statements about the USPTO patent interference proceedings between Alnylam and Tekmira; estimates and scope of Tekmira's financial guidance and expected cash runway; and estimates of the length of time Tekmira's business will be funded by its anticipated financial resources.

With respect to the forward-looking statements contained in this MD&A, Tekmira has made numerous assumptions regarding, among other things: LNP's status as a leading RNAi delivery technology; the effectiveness of Tekmira's products as a treatment for high LDL cholesterol, cancer, infectious disease, and alcohol dependence; the developmental milestones and approvals required to trigger funding for TKM-Ebola from the Transformational Medical Technologies program; results in non-human primates are indicative of the potential effect in humans; Tekmira's research and development capabilities and resources; U.S. Food and Drug Administration (FDA) approval with respect to commencing clinical trials; the timing and obtaining of regulatory approvals for Tekmira's products; the timing and results of clinical data releases and use of LNP technology by Tekmira's development partners and licensees; the time required to complete research and product development activities; the timing and quantum of payments to be received under contracts with Tekmira's collaborative partners including the U.S. Government and the manufacturing agreement with Alnylam; the nature and prospects of the litigation with Alnylam and AlCana, including the patent infringement lawsuit filed by Alnylam; based on the conduct of Alnylam and AlCana, the nature, scope and quantum of damages that Tekmira is entitled to; costs and timing of the litigation with Alnylam and AlCana and the effects of such on Tekmira's financial position and execution of Tekmira's business strategy; the effect of Alnylam's and AlCana's answers and counterclaims on Tekmira's litigation position; the sufficiency of budgeted capital expenditures in carrying out planned activities; Tekmira's ability to protect its intellectual property rights and not to infringe on the intellectual property rights of

others; the ability to succeed at establishing a successful commercialization program for any of Tekmira's products; and the availability and cost of labor and services. 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 possibility that other organizations have made advancements in RNAi delivery technology that Tekmira is not aware of; the FDA will not approve the commencement of Tekmira's planned clinical trials or approve the use of Tekmira's products and generally, difficulties or delays in the progress, timing and results of clinical trials; the FDA may determine that the design and planned analysis of Tekmira's clinical trials do not adequately address the trial objectives in support of Tekmira's regulatory submissions; future operating results are uncertain and likely to fluctuate; competition from other pharmaceutical or biotechnology companies; Tekmira's ability to raise additional financing required to fund further research and development, clinical studies, and obtain regulatory approvals, on commercially acceptable terms or at all; economic and capital market conditions; Tekmira's ability to obtain and protect intellectual property rights, and operate without infringing on the intellectual property rights of others; Tekmira's research and development capabilities and resources will not meet current or expected demand; Tekmira's development partners and licensees conducting clinical trial and development programs will not result in expected results on a timely basis, or at all; anticipated payments under contracts with Tekmira's collaborative partners including the U.S. Government and Alnylam will not be received by Tekmira on a timely basis, or at all, or in the quantum expected by Tekmira; the U.S. Government may reduce or cancel certain defense spending, including Tekmira's contract to develop TKM-Ebola; FDA may decide that our TKM-Ebola "Animal Rule" data is insufficient for approval and require additional pre-clinical, clinical or other studies, refuse to approve TKM-Ebola, or place restrictions on our ability to commercialize TKM-Ebola; the release of data from the TKM-Ebola Phase 1 human clinical trial may not occur in the expected timeframe, or at all; pre-clinical and clinical trials may be more costly or take longer to complete than anticipated; pre-clinical or clinical trials may not generate results that warrant future development of the tested drug candidate; Tekmira may become subject to product liability or other legal claims for which the Company has made no accrual in its financial statements; TKM-ALDH2 may not prove to be effective in the treatment of AD; the FDA may not review Talon's NDA for Marqibo in the estimated timeframe, or at all; U.S. Government contract revenue may not increase over 2011 levels; BMS revenue may not increase in 2012 as compared to 2011; Tekmira's cash runway may not extend as far as anticipated, and may be substantially less than required to continue current operations; the final outcome of the litigation with Alnylam and AlCana is not presently determinable or estimable and may result in an outcome that is unfavorable to Tekmira, including damages and other relief against Tekmira claimed by Alnylam and AlCana in their counterclaims; there may be no basis for which Tekmira has any rights or entitlement to damages from Alnylam or AlCana in the quantum anticipated by Tekmira, or at all; legal expenses associated with litigation are uncertain and may exceed current estimates, which may have a material adverse effect on Tekmira's financial position and ongoing business strategy; document production completion and/or the trial date may not occur by the dates currently estimated; the uncertainty of litigation, including the time and expenses associated therewith; risks and uncertainties involved in the litigation process, 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; Tekmira has not sufficiently budgeted for capital expenditures necessary to carry out planned activities including the litigation against Alnylam and AlCana.

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, 2011, which is available at [www.sedar.com](http://www.sedar.com) or at [www.sec.gov/edgar](http://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.

## OVERVIEW

Tekmira is a biopharmaceutical company focused on advancing novel RNA interference therapeutics and providing its leading lipid nanoparticle (LNP) delivery technology to pharmaceutical partners.

**Technology, product development and licensing agreements**

Our therapeutic product pipeline consists of products being developed internally with our research and development resources. We also support the development of our collaboration partners' products and are developing an Ebola antiviral product, called TKM-Ebola, under a Transformational Medical Technologies (TMT) contract with the U.S. Government. Our focus is on advancing products that utilize our proprietary LNP technology for the delivery of small interfering RNA (siRNA) and multivalent RNA (MV-RNA). These products are intended to treat diseases through a process known as RNA interference, which prevents the production of disease associated proteins. We have rights under Alnylam's RNAi intellectual property to develop eight RNAi therapeutic products. We have exclusive access to MV-RNA technology for the development of RNAi therapeutic products.

In the field of RNAi therapeutics, we have licensed our LNP delivery technology to Alnylam Pharmaceuticals, Inc. and Merck & Co., Inc. Alnylam has granted non-exclusive access to some of our intellectual property to certain of its partners. In addition, we have ongoing research relationships with Bristol-Myers Squibb Company, the United States National Cancer Institute, the U.S. Government, through their TMT program, and other undisclosed pharmaceutical and biotechnology companies. Outside the field of RNAi, we have legacy licensing agreements with Talon Therapeutics, Inc. (formerly Hana Biosciences, Inc.) and Aradigm Corporation.

**Internal Product Candidates****TKM-PLK1**

Our lead oncology product candidate, TKM-PLK1, has been shown in preclinical animal studies to selectively kill cancer cells, while sparing normal cells in adjacent healthy tissue. TKM-PLK1 targets PLK1 (polo-like kinase 1), 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.

Our preclinical studies have demonstrated that a single, systemic intravenous administration of TKM-PLK1 blocked PLK1 expression in liver tumors causing extensive tumor cell death. After repeat dosing, this result translated into significant inhibition of tumor growth and prolonged survival without evidence of the toxicities often associated with oncology drugs. The TKM-PLK1 anti-tumor efficacy results were confirmed to be the result of silencing PLK1 via RNA interference. Furthermore, certain LNP formulations provided potent anti-tumor efficacy in preclinical models of tumors outside the liver.

On December 22, 2010, we announced the initiation of patient treatment in a Phase 1 human clinical trial of TKM-PLK1. The Phase 1 clinical trial, conducted at three medical centers in the United States, is an open label, multi-dose, dose escalation study designed to evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1 as well as determining the maximum tolerated dose. The trial is enrolling up to 52 patients with advanced solid tumors. Secondary objectives of the trial are to measure tumor response and the pharmacodynamic effects of TKM-PLK1 in patients providing biopsies.

On March 27, 2012, we provided an update on the ongoing TKM-PLK1 Phase 1 clinical trial announcing that a total of 20 patients have been enrolled and a total of 82 doses have been administered to patients. The trial continues to enroll patients and we expect to have established the maximum tolerated dose and release interim results over the coming months.

A second Phase 1 human clinical trial of TKM-PLK1 was initiated in collaboration with the United States National Cancer Institute (NCI). This trial's objectives included an assessment of drug activity in patients providing biopsies as a means of establishing human proof-of-concept for both RNAi and Tekmira's LNP technology. In late 2011 and early 2012 Alnylam disclosed interim clinical data from their ALN-TTR and ALN-PCS programs, both of which utilize Tekmira's LNP technology. As these data provide robust proof-of-concept for LNP mediated RNAi in human subjects, we have elected to discontinue the NCI trial, apply the resources that had previously been set aside to support the trial to other programs and have focused our collaboration with the NCI on research to identify novel oncology targets.

**TKM-Ebola**

For many years, the Zaire species of Ebola virus (ZEBOV) has been associated with periodic outbreaks of hemorrhagic fever in human populations with mortality rates reaching 90%. There are no approved treatments for Ebola or other hemorrhagic fever viruses.

On May 28, 2010 we announced the publication of a series of studies demonstrating the ability of an RNAi therapeutic utilizing our LNP technology to protect non-human primates from Ebola virus, a highly contagious and lethal human infectious disease. We conducted the studies in collaboration with infectious disease researchers from Boston University and the United States Army Medical Research Institute for Infectious Diseases (USAMRIID) and were funded in part by the U.S. Government's Transformational Medical Technologies (TMT) program. These preclinical studies were published in the medical journal *The Lancet* and demonstrated that when siRNA 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).

On July 14, 2010, we signed a contract with the United States Government to advance an RNAi therapeutic utilizing our LNP technology to treat Ebola virus infection. In the initial phase of the contract, which is expected to last approximately three years and is funded under the TMT program, we are eligible to receive up to US\$34.7 million. This initial funding is for the development of TKM-Ebola, including completion of preclinical development, filing an IND application with the FDA and completing a Phase 1 human safety clinical trial.

The United States Government 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 budget for the extended contract this would provide the Company with a total of up to US\$140.0 million in funding for the entire program. Under the contract we invoice the United States Government for direct labor, third party costs and an apportionment of overheads plus a profit margin. The funding is paid through monthly reimbursements, and the U.S. Government has the ability to cancel at any time.

On November 28, 2011 we announced that an Investigational New Drug (IND) application for TKM-Ebola was approved by the United States Food and Drug Administration (FDA). On February 8, 2012, we announced that Phase 1 clinical trial for TKM-Ebola had been initiated. The Phase 1 TKM-Ebola clinical trial is a placebo-controlled, single-blind, single-ascending dose study with additional multiple-ascending dose cohorts in healthy human volunteers. The objective of the Phase 1 trial is to assess the safety and tolerability of TKM-Ebola and evaluate the pharmacokinetics and systemic exposure following both a single-ascending dose and multiple-ascending doses of TKM-Ebola. TKM-Ebola will be 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.

#### **Additional Product Candidates**

On January 7, 2010 we announced the completion of a Phase 1 clinical trial for our product candidate TKM-ApoB. TKM-ApoB is being developed as a treatment for patients with high levels of low-density lipoprotein (LDL) cholesterol, or "bad" cholesterol, who are not well served by current therapy. TKM-ApoB is designed to reduce the production of apolipoprotein B 100 (ApoB), a protein produced in the liver that plays a central role in cholesterol metabolism. We enrolled a total of 23 subjects in the TKM-ApoB Phase 1 clinical trial. Of the 23 subjects enrolled, 17 subjects received a single dose of TKM-ApoB at one of seven different dosing levels and six subjects received a placebo. The primary endpoints of the TKM-ApoB Phase 1 clinical trial were measures of safety and tolerability. TKM-ApoB was well tolerated overall in this study with no evidence of liver toxicity, which was the anticipated dose-limiting toxicity observed in preclinical studies. Of the two subjects treated at the highest dose level, one subject experienced an adverse event comprised of flu-like symptoms, cytokine release and transient hypotension consistent with stimulation of the immune system caused by the ApoB siRNA payload. The other subject treated at the highest dose level experienced no side effects. Based on the potential for the immune stimulation to interfere with further dose escalation, we decided to conclude the trial. Subsequent to the completion of the trial, we have made adjustments to the ApoB siRNA to minimize any immune stimulatory properties. We also continue to make significant advancements in LNP formulation development and there are several alternative LNP formulations with improved characteristics that are currently being evaluated for TKM-ApoB development.

On June 2, 2011 we announced that we have secured non-exclusive licenses from Alnylam targeting two validated oncology targets: WEE1 and CSN5. Our collaborators at the National Cancer Institute (NCI) identified the novel cancer genes WEE1 and CSN5 from human tumor samples, and together we have generated encouraging preclinical data by leveraging our expertise in siRNA design and delivery. Gene expression data from human



tumor samples indicate that both CSN5 and WEE1 are up-regulated in a number of human cancers and have been identified as potential molecular targets in breast, liver, lung, ovarian and skin cancer, amongst other tumor types. We are conducting preclinical work to further evaluate these targets before initiating formal toxicology studies.

On March 1, 2012, we announced that we have secured an exclusive license from Alnylam to develop TKM-ALDH2, a systemically delivered RNAi therapeutic that utilizes Tekmira's LNP for the treatment of Alcohol Dependence (AD). Currently, many approved treatments for AD have low response rates and poor patient compliance rates. ALDH2 is a well validated target with both genetic and pharmacological data supporting its role as a key player in alcohol avoidance. It is expected that TKM-ALDH2 could be administered as a "once-a-month" treatment of AD.

Tekmira is also evaluating a number of other preclinical candidates for advancement within its product pipeline.

#### **Alnylam collaboration and license**

On January 8, 2007, we entered into a licensing and collaboration agreement with Alnylam giving them an exclusive license to certain historical lipid nanoparticle intellectual property owned by Tekmira for the discovery, development, and commercialization of RNAi therapeutics. This agreement only covered intellectual property owned before Tekmira's business combination with Protiva Biotherapeutics, Inc. on May 30, 2008.

Protiva, which is now a wholly owned subsidiary of ours, and Alnylam entered into a cross-license Agreement in August 2007, which was amended and restated in May 2008, granting Alnylam non-exclusive access to Protiva's intellectual property in the RNAi field and required Alnylam to fund a certain level of collaborative research for two years. The research collaboration element of the Alnylam Cross-License expired in August 2009. We are, however, continuing to make LNP research batches for Alnylam under a manufacturing agreement which is discussed below.

In August 2007, pursuant to the terms of the cross-license, Alnylam made a payment of US\$3.0 million that gives Alnylam the right to "opt-in" to the Tekmira TKM-PLK1 project and share equally in any future product revenues, provided that Alnylam contributes 50% of TKM-PLK1 product development costs. Alnylam has until the start of a TKM-PLK1 Phase 2 clinical trial of the TKM-PLK1 project to exercise their opt-in right. In the event that Alnylam chooses to exercise that right, the US\$3.0 million already paid will be credited towards Alnylam's 50% share of project costs to date.

In addition, we are eligible to receive up to US\$16.0 million in milestones from Alnylam for each RNAi therapeutic advanced by Alnylam or its partners that utilizes our intellectual property and royalties on product sales.

The agreements with Alnylam grant 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 eight gene targets – three exclusive and five 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 targets, ApoB, PLK1, Ebola, WEE1, and CSN5, have already been granted on a non-exclusive basis, along with an additional license for ALDH2, which has been granted on an exclusive basis. We may select two additional exclusive gene targets to develop RNAi therapeutic products, provided that the targets are not part of an ongoing or planned development program of Alnylam. 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 US\$8.5 million on the non-exclusive licenses (with the exception of TKM-Ebola, which has no milestone obligations, and TKM-PLK1 if Alnylam opts-in to the development program). We will have no milestone obligations on the three exclusive licenses.

In April 2009, Alnylam announced that they had initiated a Phase 1 human clinical trial for a product candidate that utilizes our LNP technology. The Alnylam product candidate, ALN-VSP, is being developed as a treatment for advanced solid tumors with liver involvement. ALN-VSP comprises siRNA molecules delivered systemically using our LNP technology. We are responsible for manufacturing the ALN-VSP drug product. The initiation of the ALN-VSP Phase 1 clinical trial triggered a milestone payment of \$0.6 million (US\$0.5 million) which we received in May 2009. Interim ALN-VSP data was presented at the American Society of Clinical Oncology (ASCO) meeting in May 2010 and at the Chemotherapy Foundation Symposium in November 2010. In June 2011, Alnylam presented Phase 1 human clinical trial data at American Society of Clinical Oncology (ASCO)

meeting and disclosed that ALN-VSP was generally well tolerated, demonstrated evidence for anti-tumor activity, and was found to mediate RNAi activity in both hepatic and extra-hepatic tumors. Alnylam has announced that it expects to partner its ALN-VSP program prior to initiating a Phase 2 clinical study.

Alnylam is advancing two ALN-TTR formulations, ALN-TTR01 and ALN-TTR02. Both formulations are RNAi therapeutics targeting transthyretin (TTR) for the treatment of TTR-mediated amyloidosis (ATTR), a systemic disease caused by mutations in the TTR gene. ALN-TTR01 and ALN-TTR02 utilize our LNP technology and are being manufactured by us. In July 2010, Alnylam announced the initiation of a Phase 1 human clinical trial for ALN-TTR01, which triggered a US\$0.5 million milestone payment to us. On November 21, 2011, we announced that Alnylam had presented preliminary Phase 1 clinical results for ALN-TTR01. Alnylam reported that ALN-TTR01 was safe and well tolerated and that ALN-TTR01 demonstrated rapid, dose-dependent, and durable lowering of serum TTR protein levels after a single dose in ATTR patients. Following clearance of the CTA filed for ALN-TTR02 in January 2012, Alnylam announced the initiation of the ALN-TTR02 Phase 1 study in March 2012 with data expected to be reported in the third quarter of 2012.

Alnylam is also developing ALN-PCS, an RNAi therapeutic, to treat hypercholesterolemia, or high levels of cholesterol in the blood. ALN-PCS is manufactured by us and is enabled by our LNP delivery technology. On September 26, 2011, Alnylam announced the initiation of a Phase 1 human clinical trial for ALN-PCS which triggered a US\$0.5 million milestone payment to us. On January 4, 2012, we announced that Alnylam had presented positive preliminary results from its ongoing clinical trial of ALN-PCS. Alnylam reported that ALN-PCS was safe and well tolerated and that ALN-PCS demonstrated statistically significant RNAi silencing of PCSK9 of up to 66% and reductions of up to over 50% in levels of low-density lipoprotein cholesterol (LDL-C), or "bad" cholesterol, a clinically validated endpoint. Alnylam expects to partner its ALN-PCS program prior to initiating a Phase 2 clinical study.

Under a manufacturing agreement entered into in January 2009 we continue to be the exclusive manufacturer of any products that utilize our technology as required by Alnylam through to the end of Phase 2 clinical trials. Alnylam will pay for the provision of staff and for external costs incurred. Pursuant to the terms of the Alnylam Manufacturing Agreement, there is a contractual minimum of CDN\$11.2 million payable by Alnylam for the three years from 2009 to 2011. From January 1, 2012, at the start of each calendar quarter, Alnylam will prepay for the provision of our staff based on their estimate of work to be performed in that quarter. Any under or over estimate will be reconciled at the end of each quarter. Alnylam will continue to pay for external costs incurred by us on their behalf on a monthly invoice basis.

#### **Litigation with Alnylam and AICana**

On March 16, 2011, we filed a complaint against Alnylam for misappropriation and misuse of trade secrets, know-how and other confidential information, unfair and deceptive trade practices, unjust enrichment, unfair competition and false advertising. The suit, filed in the Business Litigation Session of the Massachusetts Superior Court, alleges Alnylam exploited its confidential relationship with us as a collaborator to engage in inappropriate and harmful conduct concerning our proprietary LNP technology, resulting in damage to our intellectual property and business interests. On April 6, 2011, Alnylam filed an answer and counter-claim to our complaint. On June 3, 2011, we filed an amended complaint against Alnylam and expanded our complaint to include AICana Technologies, Inc. (AICana). Our amended complaint against Alnylam is for misappropriation and misuse of trade secrets, know-how and other confidential information, unfair and deceptive trade practices, unjust enrichment, unfair competition and false advertising, breach of contract, breach of the implied covenant of good faith and fair dealing, tortious interference with contractual relationships, and civil conspiracy. The suit alleges Alnylam exploited its confidential relationship as our collaborator to misappropriate our proprietary lipid nanoparticle delivery technology, resulting in damage to our intellectual property and business interests. The amended complaint also adds AICana as a defendant and asserts claims alleging misappropriation of trade secrets, tortious interference with contractual relations, unjust enrichment, unfair and deceptive acts and trade practices, and civil conspiracy against AICana. We are seeking damages based on Alnylam's conduct as alleged in the amended complaint including termination of Alnylam's license to our technology.

On June 28, 2011 Alnylam filed an amended answer and counter-claim and on July 15, 2011 AICana filed its answer and counter-claim to our amended complaint. Alnylam's answer and amended counter-claim alleges, in summary, breach of contract: contractual dispute resolution and confidentiality provisions, defamation, breach of covenant not to sue, breach of patent prosecution cooperation and non-use provisions, and breach of an implied covenant of good faith and fair dealing. Alnylam's defamation counter-claim was dismissed by the BLS Court in

September 2011 including an award of our attorney's fees and costs. AICana's answer and amended counter-claim alleges, in summary, breach of contract and breach of an implied covenant of good faith and fair dealing. In December 2011, we disclosed that the BLS Court has set a trial date of October 30, 2012.

On November 16, 2011, we disclosed that we had filed a Notice of Civil Claim in the Supreme Court of British Columbia against certain individuals from AICana alleging that thousands of confidential documents containing our confidential information and trade secrets were downloaded and taken from us. We also filed a Notice of Application seeking an injunction ordering the documents and derivative materials be returned. We are also seeking general and punitive damages. On January 10, 2012, we disclosed that the Supreme Court of British Columbia granted Tekmira's application for an injunction that orders confidential documents and materials be returned to Tekmira and prohibits the use of Tekmira's confidential information. The injunction also requires the defendants to identify every person and corporation to whom the information was provided or communicated.

On January 17, 2012, we disclosed that Alnylam filed a patent infringement lawsuit against Tekmira in the U.S. District Court of the District of Massachusetts. Isis Pharmaceuticals, Inc. is named as a co-plaintiff in the suit. The context for this infringement suit has arisen out of our ongoing litigation between with Alnylam and AICana. On March 6, 2012, we disclosed that we responded to the patent infringement lawsuit filed on January 17, 2012 by Alnylam and Isis in the U.S. District Court of Massachusetts by filing a motion to dismiss, seeking to eliminate claims for lack of standing. Tekmira alleges in its motion that Alnylam is seeking to assert rights that it does not have. On March 16, 2012, Alnylam responded with an opposition to Tekmira's motions alleging that Alnylam does have standing to sue Tekmira and that Tekmira's motion to dismiss should be denied.

We are also currently involved in a patent interference proceeding declared by the U.S. Patent and Trademark Office to determine priority of invention to subject matter of Alnylam's U.S. Patent No. 7,718,629 in light of Tekmira's U.S. Patent Application 11/807,872.

#### **License and collaboration agreement with 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 allows us to work together with Halo-Bio to design and develop MV-RNA molecules directed at gene targets of interest to us and to combine MV-RNA molecules with our LNP technology to develop therapeutic products. MV-RNA technology comprises single macromolecules capable of mediating RNAi at multiple unique target sites. MV-RNA can target three sites on a single gene or up to three separate genes simultaneously. We have already successfully demonstrated multi-gene knockdown using MV-RNA enabled by our proprietary LNP formulations.

We paid Halo-Bio an initial license fee of \$97,940 (US\$100,000).

Under the Agreement, the maximum future license fees and other contingent payments are US\$1,960,000 and the Company will pay up to US\$12,700,000 in milestones on each product developed plus royalties.

#### **Roche product development and research agreements**

On May 11, 2009 we announced a product development agreement with Roche (Roche Product Development Agreement) that provided for product development up to the filing of an IND by Roche. Under the Roche Product Development Agreement, Roche was paying for the provision of our staff and for external costs incurred up to US\$8.8 million, for us to support the advancement of a Roche RNAi product candidate using our LNP technology through to the filing of an IND application.

On November 17, 2010, Roche announced that, as part of a corporate restructuring, they intend to discontinue research and development in the field of RNAi. Following the announcement, Roche confirmed that, except for completing some product stability studies, they would be discontinuing product development with Tekmira. The stability studies were completed in 2011 so we now have no further obligation to Roche. In October 2011, Arrowhead Research Corporation announced that it had acquired all RNA therapeutics assets and IP from Roche. Recognition of revenue from the Roche Product Development Agreement is covered in the Revenue section of this MD&A.

#### **Merck & Co., Inc. (Merck) license agreement**

As a result of the business combination with Protiva we acquired a non-exclusive royalty-bearing world-wide



license agreement with Merck. Under the license, Merck will pay up to US\$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 US\$15.0 million in milestones, and will pay royalties on product sales. Merck has also granted a license to the Company to certain of its patents. The license agreement with Merck was entered into as part of the settlement of litigation between Protiva and a Merck subsidiary.

#### **Bristol-Myers Squibb Company (BMS) research agreement**

On May 10, 2010 we announced the expansion of our research collaboration with BMS. Under the new agreement, BMS will use siRNA 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 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. On May 17, 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) grant**

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 US\$2.4 million, will support work at Tekmira and the UTMB.

#### **Legacy Agreements**

##### **Talon Therapeutics, Inc. (formerly Hana Biosciences, Inc.) license agreement**

Talon is developing targeted chemotherapy products under a legacy license agreement entered into in May 2006. Marqibo (Optisomal Vincristine), Alocrest (formerly INX-0125, Optisomal Vinorelbine) and Brakiva (formerly INX-0076, Optisomal Topotecan), products originally developed by us, have been exclusively licensed to Talon. Talon has agreed to pay us milestones and single-digit royalties and is responsible for all future development and future expenses. In May 2009, the license agreement with Talon was amended to decrease the size of near-term milestone payments and increase the size of long-term milestone payments. On September 20, 2010, the license agreement with Talon was amended a second time such that Talon paid \$5.9 million (US\$5.75 million) in consideration for reducing certain future payments associated with the product candidates. The payment of \$5.9 million (US\$5.75 million) from Talon has been paid to our contingent creditors in full settlement of a contingent obligation. We are now eligible to receive milestone payments from Talon of up to US\$19.0 million upon achievement of further development and regulatory milestones and we are also eligible to receive single-digit royalties on product sales. The milestone payments can be made in common shares of Talon. If Talon sublicenses any of the product candidates, Tekmira is eligible to receive a percentage of any upfront fees or milestone payments received by Talon. Depending on the royalty rates Talon 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 proprietary sphingosomal formulation of the widely used, off-patent cancer chemotherapeutic vincristine. The FDA has granted Talon orphan drug and fast track designations for the use of Marqibo in adult acute lymphoblastic leukemia (ALL). In August 2007, Talon initiated a Phase 2 Marqibo registration-enabling clinical trial in relapsed ALL and in November 2007 initiated a Phase 2 clinical trial investigating Marqibo as a treatment for uveal melanoma. In December 2009, Talon announced the results of its Phase 2 relapsed ALL clinical trial. On July 18, 2011, Talon announced that its New Drug Application (NDA) for Marqibo had been submitted to the FDA seeking approval for the treatment of adult Philadelphia chromosome-negative ALL in second or greater relapse or that has progressed following two or more lines of anti-leukemia therapy. On September 27, 2011, Talon announced its NDA for Marqibo had been accepted for filing by the FDA. On March 21, 2012, the Oncologic Drugs Advisory Committee voted 7 yes, 4 no, and 2 abstain that evidence from clinical studies supports a favorable benefit/risk assessment for use of Marqibo in the indicated population. The FDA is expected to review Talon's NDA by May 13, 2012.

**Aradigm Corporation license agreement**

On December 8, 2004, we entered into a licensing agreement with Aradigm Corporation under which Aradigm exclusively licensed certain of our liposomal intellectual property. Under this agreement, we are entitled to milestone payments totaling US\$4.75 million for each disease indication, to a maximum of two, pursued by Aradigm using our technology. In addition, we are entitled to royalties on any product revenue.

**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 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. 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 U.S. Government contract for TKM-Ebola is based on cost reimbursement plus an incentive fee. At the beginning of our fiscal year we estimate our labour and overhead rates for the year ahead. At the end of the year we calculate our actual labour and overhead rates and adjust our revenue accordingly. Our actual labour 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 U.S. Government 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.

Our revenue for 2011 was \$16.6 million (2010 - \$21.4 million) and deferred revenue at December 31, 2011 was \$4.5 million (December 31, 2010 - \$4.1 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 compensation expense in 2011 of \$0.6 million (2010 - \$0.7 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.

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. The estimated volatility of our common stock at the date of issuance, and at each subsequent reporting period, is based on historical volatility that matches the expected remaining life of the warrants. 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.

We recorded a credit for the change in fair value of warrant liability in 2011 of \$0.6 million (2010 - \$nil).

## 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 October 2009, the FASB issued EITF 08-01, *Revenue Arrangements with Multiple Deliverables* (currently within the scope of FASB Accounting Standards Codification (ASC) Subtopic 605-25). This statement provides principles for allocation of consideration among its multiple-elements, allowing more flexibility in identifying and accounting for separate deliverables under an arrangement. The EITF introduces an estimated selling price method for valuing the elements of a bundled arrangement if vendor-specific objective evidence or third-party evidence of selling price is not available, and significantly expands related disclosure requirements. This standard is effective on a prospective basis for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. Alternatively, adoption may be on a retrospective basis, and early application is permitted. We adopted this pronouncement on January 1, 2011. Adoption of the pronouncement did not have a material impact on our financial statements.

In December 2011, the FASB issued ASU 2011-11, *Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities*. This newly issued accounting standard 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 is not expected to have an impact on our financial position or results of operations.

In June 2011, the FASB issued ASU No. 2011-05, *Comprehensive Income (Topic 220): Presentation of Comprehensive Income*. This newly issued accounting standard (1) eliminates the option to present the

components of other comprehensive income as part of the statement of changes in stockholders' equity; (2) requires the consecutive presentation of the statement of net income and other comprehensive income; and (3) requires an entity to present reclassification adjustments on the face of the financial statements from other comprehensive income to net income. The amendments in this ASU do not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income nor do the amendments affect how earnings per share is calculated or presented. In December 2011, the FASB issued ASU No. 2011-12, *Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05*, which defers the requirement within ASU 2011-05 to present on the face of the financial statements the effects of reclassifications out of accumulated other comprehensive income on the components of net income and other comprehensive income for all periods presented. During the deferral, entities should continue to report reclassifications out of accumulated other comprehensive income consistent with the presentation requirements in effect prior to the issuance of ASU 2011-05. These ASUs are required to be applied retrospectively and are effective for fiscal years, and interim periods within those years, beginning after December 15, 2011, which for Tekmira means January 1, 2012. As these accounting standards do not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income, the adoption of these standards is not expected to have an impact on our financial position or results of operations. In May 2011, the FASB issued ASU No. 2011-04, *Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs*. This newly issued accounting standard clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. This ASU is effective on a prospective basis for annual and interim reporting periods beginning on or after December 15, 2011, which for Tekmira means January 1, 2012. The adoption of this standard is not expected to have a material impact on our financial position or results of operations.

#### **SUMMARY OF QUARTERLY RESULTS**

Historically we prepared our consolidated financial statements in conformity with Canadian generally accepted accounting principles (GAAP). Effective December 31, 2010, we adopted United States of America GAAP as the reporting standard for our consolidated financial statements. All comparative financial information contained in this MD&A has been recast to reflect our results as if we had historically reported in accordance with U.S. GAAP. 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 consolidated financial statements (as adjusted to reflect our adoption of U.S. GAAP), which were prepared on the same basis as our annual audited financial statements (as adjusted to reflect our adoption of U.S. GAAP) and, in our opinion, include all adjustments necessary, consisting solely of normal recurring adjustments, for the fair presentation of such information.

(in millions Cdn\$ except per share data) - unaudited

	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011
<b>Revenue</b>								
Collaborations and contracts:								
Alnylam	\$ 0.9	\$ 1.4	\$ 1.8	\$ 2.1	\$ 0.9	\$ 1.0	\$ 1.5	\$ 0.7
U.S. Government	-	-	1.2	2.4	3.4	3.3	2.0	2.8
Roche	1.3	0.9	0.6	1.7	-	-	-	-
Other	0.3	-	0.3	-	-	0.1	0.2	0.2
	2.5	2.3	3.9	6.2	4.3	4.4	3.7	3.7
Alnylam licensing fees and milestone payments	-	-	0.5	-	-	-	0.5	-
Talon license amendment payment	-	-	6.0	-	-	-	-	-
<b>Total revenue</b>	<b>2.5</b>	<b>2.3</b>	<b>10.4</b>	<b>6.2</b>	<b>4.3</b>	<b>4.4</b>	<b>4.2</b>	<b>3.7</b>
Expenses and other income (losses)	6.7	6.3	12.8	8.1	7.4	7.9	5.7	5.5
<b>Net loss</b>	<b>(4.2)</b>	<b>(4.0)</b>	<b>(2.4)</b>	<b>(1.9)</b>	<b>(3.1)</b>	<b>(3.5)</b>	<b>(1.5)</b>	<b>(1.8)</b>
<b>Basic and diluted net loss per share</b>								
	<b>\$ (0.40)</b>	<b>\$ (0.38)</b>	<b>\$ (0.24)</b>	<b>\$ (0.18)</b>	<b>\$ (0.30)</b>	<b>\$ (0.33)</b>	<b>\$ (0.12)</b>	<b>\$ (0.15)</b>

**Quarterly Trends** / Our revenue is derived from research and development collaborations and contracts, licensing fees and milestone payments. Over the past two years, our principal sources of ongoing revenue have been our Alnylam partnership entered into in March 2006, our Roche partnership which was expanded in May 2009 and our contract with the U.S. Government to advance TKM-Ebola which began in July 2010.

In January 2009 we signed a Manufacturing Agreement with Alnylam. Revenue from the Alnylam Manufacturing Agreement was higher than usual in Q3 2010, Q4 2010 and Q3 2011 when deferred revenue related to minimum FTE payments was recognized based on our estimate of percentage of completion of the annual commitment. Quarterly revenue levels are also affected by the timing of manufacturing third party costs such as manufacturing suite charges. The timing of batch manufacturing is sporadic and manufacturing suite booking fees can precede the date of batch manufacture by many months.

In Q3 2010 we signed a contract with the U.S. Government to develop TKM-Ebola and incurred significant program costs such as materials and preclinical studies that have been included in research, development, collaborations and contracts expenses. These third-party costs are being reimbursed by the U.S. Government so are also recorded as revenue. U.S. Government revenue from the TKM-Ebola program also includes labour, overheads and incentive fee charges. Third-party costs were lower in Q3 2011 as we focused on preparing to file the IND for TKM-Ebola.

In November 2010, Roche announced that, as part of a corporate restructuring, they intend to discontinue research and development in the field of RNAi. Following the announcement, Roche confirmed that, except for completing some product stability studies, they would be discontinuing product development with Tekmira. The balance of Roche deferred revenue, except for a provision for the stability study work, was recognized as revenue in Q4 2010. The stability studies were completed in 2011 so we now have no further obligation to Roche.

In Q3 2010 and in Q3 2011 we earned US\$0.5 million milestones from Alnylam following their initiation of a Phase 1 human clinical trial enabled by our LNP delivery technology.

In Q3 2010 we received a \$5.9 million license amendment payment from Talon. The \$5.9 million was then paid to certain of our contingent creditors in full settlement of a contingent obligation so is also included as an expense in our Q3 2010 income statement.

We expect revenue to continue to fluctuate particularly due to the variability in demand for our manufacturing



services, the development stage of the TKM-Ebola contract and the timing of licensing payments and milestone receipts.

Net losses from Q1 2010 and Q2 2010 were higher due to increased spending on our TKM-ApoB and TKM-PLK1 programs. In those quarters we were manufacturing materials for preclinical and clinical trials and conducting toxicology studies in preparation for clinical development of both programs. Losses from Q3 2010 onward have generally been lower than the first half of 2010 as a result of higher revenues. Our Q3 2011 lower expenses and net loss are a result of an unusually high proportion of revenue being generated from the reimbursement of staff time and overheads through the TKM-Ebola contract. Staff time and overhead revenue has a greater impact on reducing our losses than research and development costs reimbursement.

**Fourth quarter of 2011** / Our Q4 2011 net loss was \$1.8 million (\$0.15 per common share) as compared to a net loss of \$1.9 million (\$0.18 per common share) for Q4 2010.

Revenue decreased to \$3.7 million in Q4 2011 as compared to \$6.2 million in Q4 2010. This decrease was largely the result of the winding down of the Roche collaboration in Q4 2010 and a low level of activity under the Alnylam Manufacturing Agreement in Q4 2011.

Research, development, collaborations and contracts expenses decreased to \$3.7 million in Q4 2011 as compared to \$6.6 million in Q4 2010. In Q4 2010, as compared to Q4 2011, we incurred a far greater level of third party costs for our U.S. Government and Alnylam contract work.

General and administrative expenses increased to \$2.0 million in Q4 2011 from \$1.2 million in Q4 2010. The increase primarily relates to legal fees incurred in respect of our lawsuit against Alnylam and AICana (see Overview for further discussion of the lawsuit).

## SELECTED ANNUAL FINANCIAL INFORMATION

The following is selected financial information for our 2011, 2010 and 2009 fiscal years:

(in millions of Cdn\$ except per share date)	2011	2010	2009
Total revenue	\$ 16.6	\$ 21.4	\$ 14.4
Research, development, collaborations and contracts expenses	19.9	22.1	17.8
General and administrative expenses	6.3	4.8	4.2
Depreciation of property and equipment	1.0	1.0	1.0
Loss on purchase and settlement of exchangeable and development notes	-	6.0	-
Other income (losses)	0.6	0.1	(0.3)
Total (loss)	(9.9)	(12.4)	(8.8)
Basic and diluted (loss) per share	(0.88)	(1.20)	(0.85)
Total assets	14.0	21.0	29.3
Total liabilities	8.7	10.3	6.8
Deficit	(258.8)	(248.9)	(236.5)
Total stockholders' equity	\$ 5.3	\$ 10.7	\$ 22.5

## RESULTS OF OPERATIONS

### Year ended December 31, 2011 compared to the year ended December 31, 2010

For the fiscal year ended December 31, 2011, our net loss was \$9.9 million (\$0.88 per common share) as compared to a net loss of \$12.4 million (\$1.20 per common share) for 2010.

**Revenue** / Revenue is detailed in the following table:

(in millions Cdn\$)	2011	2010
<b>Collaborations and contracts</b>		
Alnylam	\$ 4.1	\$ 6.3
U.S. Government	11.5	3.6
Roche	-	4.5
BMS	0.4	0.2
Other RNAi collaborators	0.1	0.4
<b>Total collaborations and contracts</b>	<b>16.1</b>	<b>14.9</b>
Alnylam milestone payments	0.5	0.5
Talon license amendment payment	-	5.9
<b>Total revenue</b>	<b>\$ 16.6</b>	<b>\$ 21.4</b>

**Alnylam revenue** / Under the Alnylam Manufacturing Agreement we are the exclusive manufacturer of any products required by Alnylam that utilize our technology through to the end of Phase 2 clinical trials. Under the Alnylam Manufacturing Agreement there was a contractual minimum payment for the provision of staff in each of the three years from 2009 to 2011 and Alnylam is reimbursing us for any external costs incurred. Revenue from external costs related to the Alnylam Manufacturing Agreement is being recorded in the period that Alnylam is invoiced for those costs except where we bear the risk of batch failure in which case revenue is recognized only once Alnylam accepts the batch. The total payment for the provision of staff from 2009 to 2011 was the contractual minimum amount of \$11.2 million. From January 1, 2012, at the start of each calendar quarter, Alnylam will prepay for the provision of our staff based on their estimate of work to be performed in that quarter. Any under or over estimate will be redressed at the end of each quarter. Alnylam will continue to pay for external costs incurred by us on their behalf on a monthly invoice basis.

In Q3 2010 and in Q3 2011 we recorded US\$0.5 million milestone payments from Alnylam following their initiation of Phase 1 human clinical trials for two separate products enabled by our LNP delivery technology.

**U.S. Government revenue** / On July 14, 2010, we signed a contract with the United States Government 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, is budgeted at US\$34.7 million and is expected to last approximately three years. This initial funding is for the development of TKM-Ebola including completion of preclinical development, filing an IND application with the FDA and completing a Phase 1 human safety clinical trial.

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

**Roche revenue** / Under the Roche Product Development Agreement dated May 2009 Roche was paying us for the provision of staff and for certain external costs incurred. In November 2010, Roche announced that, as part of a corporate restructuring, they intend to discontinue research and development in the field of RNAi. Following the announcement, Roche confirmed that, except for completing some product stability studies, they would be discontinuing product development with Tekmira. As at December 31, 2010, we retained a deferred revenue balance of \$0.04 million to cover a small amount of stability study work to be completed for Roche and the rest of Roche deferred revenue was brought into income in 2010. The stability studies were completed in Q4 2011 so we now have no further obligation to Roche under this agreement.

**BMS revenue** / In May 2010 we signed a formulation agreement with BMS under which BMS paid us \$3.2 million (US\$3.0 million) to make a certain number of LNP formulations over the following four year period. The agreement was subsequently expanded to include a previous commitment worth \$0.1 million and for the manufacture of formulations for extra-hepatic studies being conducted by BMS.

**Other RNAi collaborators revenue** / We have active research agreements with a number of other RNAi collaborators.

**License amendment payment** / On September 20, 2010, the license agreement with Talon was amended such

that Talon paid \$5.9 million (US\$5.75 million) in consideration for reducing certain future payments associated with the product candidates. The payment of \$5.9 million from Talon has been paid on to contingent creditors in full settlement of a contingent obligation (see Off-Balance Sheet Arrangements). We are now eligible to receive milestone payments from Talon of up to US\$19.0 million upon achievement of further development and regulatory milestones and we are also eligible to receive single-digit royalties on product sales. If Talon sublicenses any of the product candidates, Tekmira is eligible to receive a percentage of any upfront fees or milestone payments received by Talon.

**Revenue guidance for 2012** / Total collaborations and contracts revenues are expected to be at a similar level in 2012 as in 2011. Now that the minimum FTE requirement under the Alnylam Manufacturing Agreement has ended we expect lower Alnylam revenue. However, we expect U.S. Government contract revenue to increase over 2011 levels. BMS's demand for research formulations has recently increased so we expect more BMS revenue in 2012 as compared to 2011.

**Expenses / Research, development, collaborations and contracts** / Research, development, collaborations and contracts expenses were \$19.9 million in 2011 as compared to \$22.1 million in 2010.

In Q3 2010 we signed a contract with the U.S. Government to develop TKM-Ebola and have since been incurring significant program costs such as materials and preclinical studies that have been included in research, development, collaborations and contracts expenses. These costs are being reimbursed by the U.S. Government who is also paying for TKM-Ebola related labour costs and overheads and an incentive fee.

The initiation of the TKM-Ebola contract added significant collaborations and contracts expenses. However, third party expenses on the Alnylam and Roche contracts were lower in 2011 as compared to 2010.

For our internal programs, spending was lower in 2011 than in 2010. Spending on TKM-PLK1 has increased in 2011 as we moved into a phase 1 clinical trial but TKM-ApoB spending has been minimal since mid-2010 when we decided to evaluate new formulations for potential TKM-ApoB development.

Compensation included in research, development, collaborations and contracts expenses was slightly higher in 2011 as compared to 2010. In June 2011 there was a reduction in workforce of 15 employees.

**Research, development, collaborations and contracts expenses guidance for 2012** / Total research, development, collaborations and contracts expenses are expected to decrease modestly in 2012 as compared to 2011 levels. Our compensation expenses will be lower in 2012 than in 2011 following a reduction in workforce in January 2012 of 16 employees.

**General and administrative** / General and administrative expenses were \$6.3 million in 2011 as compared to \$4.8 million in 2010. The increase in 2011 largely relates to legal fees incurred in respect of our lawsuit with Alnylam and AlCana (see Overview for further discussion of the lawsuit).

**General and administrative expenses guidance for 2012** / Total general and administrative expenses are expected to decrease in 2012 as compared to 2011 levels. In 2011 we incurred significant expenses for our lawsuit against Alnylam and AlCana. From March 2012 onwards, under a fixed monthly fee agreement with Orrick, Herrington and Sutcliffe LLP (Orrick), our lead legal counsel for our lawsuit against Alnylam and AlCana, we will be required to reimburse Orrick for expenses incurred but no further payments will be required for professional fees. If we are successful in this lawsuit, we will pay a success fee to Orrick.

**Depreciation of property and equipment** / Depreciation of property and equipment was \$1.0 million in 2011 and \$1.0 million in 2010.

**Other income (losses) / Change in fair value of warrant liability** / On June 16, 2011 we completed a public offering of 1,789,900 units at a price of \$2.85 each for total proceeds, before expenses, of \$5.1 million. 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 \$3.35. The warrants have a five-year term.

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. Each balance sheet date the warrants are revalued and the change in value is recorded in the consolidated statement of operations and

comprehensive loss.

We recorded a Black-Scholes value, upon issuance, of \$0.74 million. At December 31, 2011 we calculated a Black-Scholes value for the warrants of \$0.17 million and therefore recorded income of \$0.57 million in 2011.

In addition, in part payment for establishing a loan facility, we have provided Silicon Valley Bank with 54,545 warrants with an exercise price of \$1.65 and an expiration date of December 21, 2018. On the date of issuance, the Black-Scholes aggregate value of the 54,545 warrants was \$0.04 million and is based on an assumed risk-free interest rate of 1.48%, volatility of 40%, a zero dividend yield and an expected life of 7 years. At December 31, 2011, the Black-Scholes value of the warrants was unchanged.

The legal and professional costs of establishing the loan of \$0.07 million and the initial fair value of the warrants of \$0.04 million have been included in General and Administrative expenses.

## RESULTS OF OPERATIONS

### Year ended December 31, 2010 compared to the year ended December 31, 2009

For the fiscal year ended December 31, 2010, our net loss was \$12.4 million (\$1.20 per common share) as compared to a net loss of \$8.7 million (\$0.85 per common share) for 2009.

The primary reason for the increase in net losses is increased research, development, collaborations and contracts spending across our internal and partnered programs. Also, in 2010, we incurred professional and listing fees for our NASDAQ listing.

**Revenue** / Revenue was \$21.4 million in 2010 as compared to \$14.4 million in 2009. In Q3 2010 we received a \$5.9 million license fee amendment payment from Talon which was subsequently paid on to contingent creditors and is further explained in Off-Balance Sheet Arrangements below. Revenue streams from our ongoing collaborations and contracts changed significantly in 2010 as discussed below.

Revenue is detailed in the following table:

(in millions Cdn\$)	2010	2009
<b>Collaborations and contracts</b>		
Alnylam	\$ 6.3	\$ 8.8
U.S. Government	3.6	-
Roche	4.5	4.8
BMS	0.2	0.2
Other RNAi collaborators	0.4	-
<b>Total collaborations and contracts</b>	<b>14.9</b>	13.8
Alnylam milestone payments	0.5	0.6
Talon license amendment payment	5.9	-
<b>Total revenue</b>	<b>\$ 21.4</b>	\$ 14.4

**Alnylam revenue** / Under an agreement with Alnylam they were required to make collaborative research payments at a minimum rate of US\$2.0 million per annum for the provision of our research staff. This agreement expired on August 13, 2009 and we no longer receive research funding from Alnylam. We are, however, continuing to make LNP research and clinical trial batches for Alnylam under the Alnylam Manufacturing Agreement.

Under the Alnylam Manufacturing Agreement we are the exclusive manufacturer of any products required by Alnylam that utilize our technology through to the end of Phase 2 clinical trials. Under the Alnylam Manufacturing Agreement there was a contractual minimum payment for the provision of staff in each of the three years from 2009 to 2011 and Alnylam is reimbursing us for any external costs incurred. Revenue from external costs related to the Alnylam Manufacturing Agreement is being recorded in the period that Alnylam is invoiced for those costs except where we bear the risk of batch failure in which case revenue is recognized only once Alnylam accepts the batch. The total payment for the provision of staff from 2009 to 2011 was a minimum of \$11.2 million.

In Q2 2009 and in Q3 2010 we received US\$0.5 million milestone payments from Alnylam following their

initiation of Phase 1 human clinical trials for two separate products enabled by our LNP delivery technology

**U.S. Government revenue** / On July 14, 2010, we signed a contract with the United States Government 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, is budgeted at US\$34.7 million and is expected to last approximately three years. This initial funding is for the development of TKM-Ebola including completion of preclinical development, filing an IND application with the FDA and completing a Phase 1 human safety clinical trial.

Under the contract we are being reimbursed for costs incurred, including an allocation of overheads, and we are being paid an incentive fee. The cost of equipment purchased for the contract, and revenue from the reimbursement of that cost, is initially recorded as deferred costs and revenue and is then amortized to the income statement over the expected contract period.

**Roche revenue** / Under the Roche Product Development Agreement dated May 2009 Roche are paying us for the provision of staff and for certain external costs incurred. We are recognizing revenue from the Roche Product Development Agreement in proportion to the services provided up to the reporting date by comparing actual hours spent to estimated total project hours. Revenue from external costs incurred under the Roche Product Development Agreement is recorded in the period that Roche is invoiced for those costs. The difference between service revenue recognized and cash received is being recorded in the balance sheet as accrued or deferred revenue, as appropriate. In November 2010, Roche announced that, as part of a corporate restructuring, they intend to discontinue research and development in the field of RNAi. Following the announcement, Roche confirmed that, except for completing some product stability studies, they would be discontinuing product development with Tekmira. At December 31, 2010, we retained a deferred revenue balance of \$0.04 million to cover a small amount of stability study work to be completed for Roche. The rest of Roche deferred revenue was brought into income in 2010.

We earned \$0.8 million in collaborations revenue during the first half of 2009 for work under a separate Roche Research Agreement that ended in June 2009.

**BMS revenue** / BMS revenue in 2009 and 2010 relates to a research collaboration agreement. In May 2010 we signed a formulation agreement with BMS under which BMS paid us \$3.2 million (US\$3.0 million) to make a certain number of LNP formulations over the next four years. Revenue from this agreement will be recognized as batches are produced. No batches had yet been produced under the new BMS agreement so deferred revenue as at December 31, 2010 included \$3.2 million in this respect.

**Other RNAi collaborators revenue** / We have active research agreements with a number of other RNAi collaborators.

**Talon license amendment payment** / On September 20, 2010, the license agreement with Talon was amended such that Talon paid \$5.9 million (US\$5.75 million) in consideration for reducing certain future payments associated with the product candidates. The payment of \$5.9 million from Talon has been paid on to contingent creditors in full settlement of a contingent obligation (see Off-Balance Sheet Arrangements). We are now eligible to receive milestone payments from Talon of up to US\$19.0 million upon achievement of further development and regulatory milestones and we are also eligible to receive single-digit royalties on product sales. If Talon sublicenses any of the product candidates, Tekmira is eligible to receive a percentage of any upfront fees or milestone payments received by Talon.

**Expenses / Research, development, collaborations and contracts** / Research, development, collaborations and contracts expenses increased to \$22.1 million in 2010 as compared to \$17.8 million in 2009.

In Q3 2010 we signed a contract with the U.S. Government to develop TKM-Ebola and incurred significant program costs such as materials and preclinical studies that have been included in research, development, collaborations and contracts expenses. These costs are being reimbursed by the U.S. Government who is also paying for TKM-Ebola related labour costs and overheads and an incentive fee.

In 2010 we also incurred more reimbursable costs on our Alnylam collaboration as compared to 2009. Overall costs incurred on our TKM-PLK1, TKM-ApoB and other research and formulation development are at similar levels in 2009 and 2010.

Research, development, collaborations and contracts compensation expenses increased in 2010 as compared to



2009. This was due to increasing staff numbers and an increase in stock option expense in 2010. Our research and development staff numbers have increased to 82 at December 31, 2010 (total staff 92) as compared to 64 (total staff 78) at December 31, 2009. Ordinarily, we issue an annual grant of stock options to all staff and directors at the end of our fiscal year but due to a stock trading black-out our annual grant was delayed until Q1 2010. Our 2010 annual grant of stock options occurred as planned in December 2010. Typically, a portion of our stock options vest immediately so there is a peak in stock option expense in the period when options are granted.

**General and administrative** / General and administrative expenses increased to \$4.8 million in 2010 from \$4.2 million in 2009. The increase in 2010 generally relates to professional and listing fees for our NASDAQ share listing.

**Depreciation of property and equipment** / Depreciation of property and equipment was steady at \$1.0 million in 2010 and \$1.0 million in 2009.

**Loss on purchase and settlement of exchangeable and development notes** / The \$5.9 million license amendment payment and related \$5.9 million loss on the purchase and settlement of exchangeable and development notes is discussed in the Overview and Off-balance sheet arrangements sections of this MD&A.

## LIQUIDITY AND CAPITAL RESOURCES

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, 2011, we had cash and cash equivalents of approximately \$9.2 million as compared to \$12.3 million at December 31, 2010.

Operating activities used cash of \$7.7 million in 2011 as compared to \$11.2 million in 2010. Excluding changes in non-cash operating items, cash used in operating activities in 2011 fell to \$8.8 million as compared to \$10.7 million in 2010 due, largely, to reduced losses as discussed earlier.

Investing activities used \$0.01 million in 2011 as compared to \$0.8 million in 2010. Investing in 2010 relates to facility improvements and manufacturing equipment. Any equipment we acquire under our TKM-Ebola contract is owned by the U.S. Government so is not recorded as a Company investment.

On June 16, 2011 we completed a public offering of 1,789,900 units at a price of \$2.85 each for total proceeds, before expenses, of \$5.1 million. 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 \$3.35. The warrants have a five-year term. After paying underwriter's commission and other unit issue costs the offering generated net cash of \$4.5 million.

In December 2011, we secured a US\$3.0 million term loan from Silicon Valley Bank (SVB). The US\$3.0 million loan from SVB may be drawn down at the discretion of the Company at any time prior to September 30, 2012. The loan matures on June 30, 2015 and carries a fixed interest rate of 8% annually. If we choose to draw down on the loan, principal and interest payments will be made monthly starting on October 1, 2012. We provided SVB with 54,545 warrants at a price of \$1.65 and will provide additional warrants equal to 2% of any draw down on the loan. We have not yet drawn down on the loan. The loan will be secured by the assets of the Company and does not include any financial covenants.

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 \$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 \$2.60 for a period of five years from closing. We plan to use the net proceeds of the offering for general corporate purposes. The common shares issued pursuant to the private placement are subject to a four-month hold period that expires on June 30, 2012.

We believe our current funds on hand, following the February 29, 2012 private placement, plus expected income, including funds from our collaborative partners and the U.S. Government and access to the loan facility from SVB, will be sufficient to continue our product development until the second half of 2013.

### Contractual obligations

Our laboratory and office premises operating 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 lease includes 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 lease.

Our minimum lease commitment, contracted sub-lease income and net commitment for lease and estimated operating costs, are as follows:

(in millions Cdn\$)	Lease commitment	Sub-lease income	Net commitment
Year ended December 31, 2012	1.3	(0.2)	1.1
Year ended December 31, 2013	1.3	-	1.3
Year ended December 31, 2014	0.7	-	0.7
	\$ 3.3	\$ (0.2)	\$ 3.1

In June 2011, we signed a fixed monthly fee agreement with Orrick, Herrington and Sutcliffe LLP (Orrick), our lead legal counsel for our lawsuit against Alnylam and AlCana. Under this agreement, from March 2012 onwards, we will be required to reimburse Orrick for expenses incurred but no further payments will be required for professional fees. If we are successful in this lawsuit we will also pay a success fee to Orrick. We have not recorded this contingent obligation due to uncertainties related to the outcome of this lawsuit. At December 31, 2011, the contingent obligation was \$4.5 million (US\$4.4 million).

We also have collaborative arrangements that require us to undertake certain research and development work as further explained elsewhere in this discussion.

#### Off-Balance Sheet arrangements

**Debt retirement** / We had a contingent obligation that arose through a Purchase and Settlement Agreement dated June 20, 2006 whereby we retired exchangeable and development notes in exchange for contingent consideration including certain future milestone and royalty payments from Talon. Concurrent with signing the second amendment of the license agreement with Talon we signed a Waiver and Release with contingent creditors, the "Former Noteholders". The balance of the contingent obligation related to the Talon milestones and royalties immediately prior to signing the Waiver and Release was US\$22.8 million. As per the terms of the Waiver and Release we paid the Former Noteholders \$5.9 million (US\$5.75 million) in full settlement of the contingent obligation and we included this in our 2010 other income (losses) as loss on purchase and settlement of exchangeable and development notes. We now have no further obligation to the Former Noteholders and we will retain any future milestones or royalties received from Talon.

**Protiva promissory notes** / On March 25, 2008, our subsidiary, Protiva, declared dividends totaling US\$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 US\$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 US\$12.0 million receivable and the related promissory notes payable are not included in our consolidated balance sheet.

#### OUTSTANDING SHARE DATA

As discussed above, on June 16, 2011 we completed a public equity offering of 1,789,900 units. Each unit consists of one common share and one half of one common share purchase warrant.

On June 22, 2011, our shareholders approved an omnibus stock-based compensation plan (the "2011 Plan") and a 273,889 increase in the number of stock-based compensation awards that we are permitted to issue. Our pre-existing stock-based compensation plans were limited to the granting of stock options as equity incentive awards whereas the 2011 Plan gives us more flexibility by also allowing for the issuance of tandem stock appreciation rights, restricted stock units and deferred stock units.

With respect to a loan facility we have provided SVB with 54,545 warrants at a price of \$1.65 and will provide additional warrants equal to 2% of any draw down on the loan.

As discussed above, on February 29, 2012 we completed the private placement of 1,848,601 units. Each unit consists of one common share and one half of one common share purchase warrant.

As of March 1, 2012, we had 13,999,461 common shares issued and outstanding, options to purchase an

additional 1,842,610 common shares and warrants to purchase an additional 1,873,797 common shares.

## **RISKS AND UNCERTAINTIES**

Our risks and uncertainties are discussed in further detail in our Form 20-F dated December 31, 2011 which can be found at [www.sedar.com](http://www.sedar.com) or at [www.sec.gov/edgar](http://www.sec.gov/edgar).

At December 31, 2011 we had \$7.2 million in working capital excluding deferred revenue and expense balances. We believe that our current funds on hand, including funds from a recently completed equity private placement and access to a term loan, plus expected income including funds from our collaborative partners and the U.S. Government will be sufficient to continue our product development into the second half of 2013. 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:

- legal costs associated with ongoing litigation with Alnylam and AICana as well as potential costs associated with the outcome of the litigation, including damages, costs and attorney fees;
- revenues earned from our collaborative partnerships, including Alnylam;
- revenues earned from our U.S. Government 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 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 and our ongoing litigation with Alnylam.

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.

In addition, we are exposed to market risk related to changes in interest and foreign currency exchange rates, each of which could adversely affect the value of our assets and liabilities. 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, 2011 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. We purchase goods and services in both Canadian and U.S. dollars and earn a significant portion of our revenues in U.S. dollars. We manage our U.S. dollar currency risk by, as far as possible, using cash received from

U.S. dollar revenues to pay U.S. dollar expenses and by limiting holdings of U.S. dollar cash and cash equivalent balances to working capital levels. We have not entered into any agreements or purchased any instruments to hedge possible currency risks at this time.

**DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING**

Our Chief Executive Officer and the Chief Financial Officer have evaluated the effectiveness of our disclosure controls and procedures for the year ending December 31, 2011 and have concluded that our disclosure controls and procedures are effective.

Our Chief Executive Officer and the Chief Financial Officer are also responsible for the design and effectiveness of internal controls over financial reporting within the Company in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP. They have evaluated our internal controls and procedures over financial reporting as of the end of the period covered by the annual filings and concluded they are effective. They also concluded that there were no changes in internal controls during 2011 that materially affected the Company's internal control over financial reporting and disclosure controls and procedures.

# **TEKMIRA PHARMACEUTICALS CORPORATION**

Consolidated Financial Statements (expressed in Canadian dollars)

(Prepared in accordance with generally accepted accounting principles used in the  
United States of America (U.S. GAAP))

December 31, 2011



## MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The consolidated financial statements contained in this report have been prepared by management in accordance with generally accepted accounting principles in the United States of America and have been approved by the Board of Directors. The integrity and objectivity of these consolidated financial statements are the responsibility of management.

In support of this responsibility, management maintains a system of internal controls to provide reasonable assurance as to the reliability of financial information and the safe-guarding of assets. The consolidated financial statements include amounts which are based on the best estimates and judgments of management.

The Board of Directors is responsible for ensuring that management fulfills its responsibility for financial reporting and internal control and exercises this responsibility principally through the Audit Committee. The Audit Committee consists of three directors not involved in the daily operations of the Company. The Audit Committee meets with management and meets independently with the external auditors to satisfy itself that management's responsibilities are properly discharged and to review the consolidated financial statements prior to their presentation to the Board of Directors for approval.

The external auditors, KPMG LLP, conduct an independent examination, in accordance with Canadian generally accepted auditing standards and the Public Company Accounting Oversight Board (United States), and express their opinion on the consolidated financial statements. Their examination includes a review of the Company's system of internal controls and appropriate tests and procedures to provide reasonable assurance that the consolidated financial statements are, in all material respects, presented fairly and in accordance with accounting principles generally accepted in the United States of America. The external auditors have free and full access to the Audit Committee with respect to their findings concerning the fairness of financial reporting and the adequacy of internal controls.

*/s/ Mark J. Murray*

*/s/ Ian C. Mortimer*

Dr. Mark J. Murray  
President and  
Chief Executive Officer

Ian C. Mortimer  
Executive Vice President, Finance and  
Chief Financial Officer

March 27, 2012



**KPMG LLP**  
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## **INDEPENDENT AUDITORS' REPORT**

To the Shareholders and Board of Directors

We have audited the accompanying consolidated financial statements of Tekmira Pharmaceuticals Corporation, which comprise the consolidated balance sheets as at December 31, 2011 and December 31, 2010, the consolidated statements of operations and comprehensive loss, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2011, 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 generally accepted accounting principles in the United States of America, 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, 2011 and December 31, 2010 and its consolidated results of operations and its consolidated cash flows for each of the years in the three-year period ended December 31, 2011 in accordance with generally accepted accounting principles in the United States of America.

**KPMG LLP (signed)**

Chartered Accountants

March 27, 2012  
Vancouver, Canada

# TEKMIRA PHARMACEUTICALS CORPORATION

## Consolidated Balance Sheets

(Expressed in Canadian Dollars)

(Prepared in accordance with U.S. GAAP)

	December 31 2011	December 31 2010
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 9,184,134	\$ 12,346,010
Accounts receivable	880,693	3,318,729
Accrued revenue	185,356	817,464
Deferred expenses	788,111	557,256
Investment tax credits receivable	331,032	403,580
Finished goods inventory	-	150,731
Prepaid expenses and other assets	424,387	315,057
<b>Total current assets</b>	<b>11,793,713</b>	<b>17,908,827</b>
Property and equipment	18,684,491	18,668,897
Less accumulated depreciation and impairment	(16,486,912)	(15,555,481)
Property and equipment net of accumulated depreciation and impairment (note 4)	2,197,579	3,113,416
<b>Total assets</b>	<b>\$ 13,991,292</b>	<b>\$ 21,022,243</b>
<b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Accounts payable and accrued liabilities (note 11)	\$ 3,972,551	\$ 6,151,923
Deferred revenue (note 3)	2,807,898	1,982,264
Warrants (notes 5 and 6(a))	205,044	-
<b>Total current liabilities</b>	<b>6,985,493</b>	<b>8,134,187</b>
Deferred revenue, net of current portion (note 3)	1,690,529	2,155,478
<b>Total liabilities</b>	<b>8,676,022</b>	<b>10,289,665</b>
<b>Stockholders' equity:</b>		
Common shares (note 6)		
Authorized - unlimited number with no par value		
Issued and outstanding:		
12,148,636 (December 31, 2010 - 10,338,702)	233,501,253	229,491,529
Additional paid-in capital	30,661,704	30,151,810
Deficit	(258,847,687)	(248,910,761)
<b>Total stockholders' equity</b>	<b>5,315,270</b>	<b>10,732,578</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 13,991,292</b>	<b>\$ 21,022,243</b>

Basis of presentation and future operations (note 1)

Contingencies and commitments (note 10)

Subsequent event (note 12)

See accompanying notes to the consolidated financial statements.

# TEKMIRA PHARMACEUTICALS CORPORATION

## Consolidated Statements of Operations and Comprehensive Loss

(Expressed in Canadian Dollars)

(Prepared in accordance with U.S. GAAP)

	Year ended December 31		
	2011	2010	2009
<b>Revenue (note 3)</b>			
Collaborations and contracts	\$ 16,122,843	\$ 14,923,860	\$ 13,831,916
Licensing fees and milestone payments	524,100	514,129	596,500
License amendment payment	-	5,916,750	-
<b>Total revenue</b>	<b>16,646,943</b>	<b>21,354,739</b>	<b>14,428,416</b>
<b>Expenses</b>			
Research, development, collaborations and contracts	19,898,969	22,133,983	17,764,379
General and administrative	6,312,487	4,780,745	4,152,540
Depreciation of property and equipment	975,512	1,038,573	988,659
Loss on purchase and settlement of exchangeable and development notes (note 3(f))	-	5,916,750	-
<b>Total expenses</b>	<b>27,186,968</b>	<b>33,870,051</b>	<b>22,905,578</b>
<b>Loss from operations</b>	<b>(10,540,025)</b>	<b>(12,515,312)</b>	<b>(8,477,162)</b>
<b>Other income (losses)</b>			
Interest income	124,852	106,957	163,696
Foreign exchange losses	(14,522)	(7,125)	(435,691)
Warrant issuance costs (note 6(a))	(80,000)	-	-
Change in fair value of warrant liability (note 6(a))	572,769	-	-
<b>Net loss and comprehensive loss</b>	<b>\$ (9,936,926)</b>	<b>\$ (12,415,480)</b>	<b>\$ (8,749,157)</b>
Loss per common share			
Basic and diluted	\$ (0.88)	\$ (1.20)	\$ (0.85)
Weighted average number of common shares			
Basic and diluted	11,318,766	10,332,941	10,325,023

See accompanying notes to the consolidated financial statements.



# TEKMIRA PHARMACEUTICALS CORPORATION

## Consolidated Statements of Cash Flow

(Expressed in Canadian Dollars)

(Prepared in accordance with U.S. GAAP)

	Year ended December 31		
	2011	2010	2009
<b>OPERATING ACTIVITIES</b>			
Loss for the period	\$ (9,936,926)	\$ (12,415,480)	\$ (8,749,157)
Items not involving cash:			
Depreciation of property and equipment	975,512	1,038,573	988,659
Stock-based compensation expense	626,119	650,620	265,685
Foreign exchange (gains) losses arising on foreign currency cash balances	(20,095)	7,187	325,742
Warrant issuance costs	80,000	-	-
Change in fair value of warrant liability	(572,769)	-	-
Fair value of warrants issued in conjunction with debt facility	35,004	-	-
Net change in non-cash operating items:			
Accounts receivable	2,438,036	(2,265,834)	(420,456)
Accrued revenue	632,108	(817,464)	-
Deferred expenses	(230,855)	(557,256)	-
Investment tax credits receivable	72,548	(123,448)	124,321
Inventory	150,731	(150,731)	174,524
Prepaid expenses and other assets	(109,330)	(88,076)	(126,621)
Accounts payable and accrued liabilities	(2,179,372)	498,096	1,180,215
Deferred revenue	360,685	2,975,305	703,343
<b>Net cash provided by (used in) operating activities</b>	<b>(7,678,604)</b>	<b>(11,248,508)</b>	<b>(5,533,745)</b>
<b>INVESTING ACTIVITIES</b>			
Proceeds from (acquisition of) short-term investments, net	-	-	5,730,507
Acquisition of property and equipment	(59,675)	(830,948)	(1,699,508)
<b>Net cash provided by (used in) investing activities</b>	<b>(59,675)</b>	<b>(830,948)</b>	<b>4,030,999</b>
<b>FINANCING ACTIVITIES</b>			
Proceeds from issuance of common shares and warrants, net of issuance costs	4,545,647	-	-
Issuance of common shares pursuant to exercise of options	10,661	34,913	7,886
<b>Net cash provided by (used in) financing activities</b>	<b>4,556,308</b>	<b>34,913</b>	<b>7,886</b>
Foreign exchange gains (losses) arising on foreign currency cash balances	20,095	(7,187)	(325,742)
<b>Increase (Decrease) in cash and cash equivalents</b>	<b>(3,161,876)</b>	<b>(12,051,730)</b>	<b>(1,820,602)</b>
Cash and cash equivalents, beginning of period	12,346,010	24,397,740	26,218,342
<b>Cash and cash equivalents, end of period</b>	<b>\$ 9,184,134</b>	<b>\$ 12,346,010</b>	<b>\$ 24,397,740</b>
<b>Supplemental cash flow information</b>			
Investment tax credits received	\$ 102,464	\$ 36,613	\$ 275,965
Fair value of warrants issued in conjunction with public offering	\$ 742,809	\$ -	\$ -
Fair value of warrants issued in conjunction with debt facility	\$ 35,004	\$ -	\$ -

See accompanying notes to the consolidated financial statements.

# TEKMIRA PHARMACEUTICALS CORPORATION

## Consolidated Statements of Stockholders' Equity

For the years ended December 31, 2011, 2010 and 2009

(Expressed in Canadian Dollars)

(Prepared in accordance with U.S. GAAP)

	Number of shares	Share capital	Additional paid-in capital	Deficit	Total stockholders' equity
Balance, December 31, 2008	10,324,735	\$ 229,412,230	\$ 29,272,005	\$ (227,746,124)	\$ 30,938,111
Stock-based compensation	-	-	265,685	-	265,685
Issuance of common shares pursuant to exercise of options	3,852	14,527	(6,641)	-	7,886
Net loss	-	-	-	(8,749,157)	(8,749,157)
Balance, December 31, 2009	10,328,587	\$ 229,426,757	\$ 29,531,049	\$ (236,495,281)	\$ 22,462,525
Stock-based compensation	-	-	650,620	-	650,620
Issuance of common shares pursuant to exercise of options	10,115	64,772	(29,859)	-	34,913
Net loss	-	-	-	(12,415,480)	(12,415,480)
Balance, December 31, 2010	10,338,702	\$ 229,491,529	\$ 30,151,810	\$ (248,910,761)	\$ 10,732,578
<b>Stock-based compensation</b>	-	-	<b>626,119</b>	-	<b>626,119</b>
<b>Issuance of common shares pursuant to exercise of options</b>	<b>20,033</b>	<b>126,886</b>	<b>(116,225)</b>	-	<b>10,661</b>
<b>Issuance of common shares in conjunction with the public offering, net of issuance costs of \$475,568 and net of initial fair value of warrants of \$742,809</b>	<b>1,789,900</b>	<b>3,882,838</b>	-	-	<b>3,882,838</b>
Net loss	-	-	-	(9,936,926)	(9,936,926)
<b>Balance, December 31, 2011</b>	<b>12,148,635</b>	<b>\$ 233,501,253</b>	<b>\$ 30,661,704</b>	<b>\$ (258,847,687)</b>	<b>\$ 5,315,270</b>

See accompanying notes to the consolidated financial statements.

# TEKMIRA PHARMACEUTICALS CORPORATION

Notes to Consolidated financial statements  
(Expressed in Canadian dollars)

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## 1. Nature of business and future operations

Tekmira Pharmaceuticals Corporation (the “Company”) is a Canadian biopharmaceutical business focused on advancing novel RNA interference therapeutics and providing its leading lipid nanoparticle delivery technology to pharmaceutical partners.

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.

### *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 the useful lives of property and equipment for the purpose of amortization, 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.

# TEKMIRA PHARMACEUTICALS CORPORATION

Notes to Consolidated financial statements  
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- 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, warrants, promissory notes and a loan facility.

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 Notes 5 and 6, to estimate fair value. These are level 3 inputs as defined above.

The Company has not yet drawn down any funds under its loan facility.

## ***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.

## ***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	5 years
Computer and office equipment	2-5 years
Furniture and fixtures	5 years

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.

## ***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-

# TEKMIRA PHARMACEUTICALS CORPORATION

Notes to Consolidated financial statements  
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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.

Revenue and expenses under the contract with the United States Government 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 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 are 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 stock options and warrants. At December 31, 2011, potential common shares of 2,830,635 were excluded from the calculation of net loss per common share because their inclusion would be anti-dilutive (December 31, 2010 – 1,627,280, December 31, 2009 – 1,637,408).

## ***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.



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Notes to Consolidated financial statements  
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## *Foreign currency translation*

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.

## *Deferred income taxes*

Income taxes are accounted for using the asset and liability method of accounting. Future 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. Future 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 future 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 future 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 6. 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 typically 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 historical volatility that matches the expected remaining life of the warrants. 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.

## *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.

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In October 2009, the FASB issued EITF 08-01, *Revenue Arrangements with Multiple Deliverables* (currently within the scope of FASB Accounting Standards Codification (ASC) Subtopic 605-25). This statement provides principles for allocation of consideration among its multiple-elements, allowing more flexibility in identifying and accounting for separate deliverables under an arrangement. The EITF introduces an estimated selling price method for valuing the elements of a bundled arrangement if vendor-specific objective evidence or third-party evidence of selling price is not available, and significantly expands related disclosure requirements. This standard is effective on a prospective basis for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. Alternatively, adoption may be on a retrospective basis, and early application is permitted. The Company adopted this pronouncement on January 1, 2011. Adoption of the pronouncement did not have a material impact on the Company's financial statements.

In December 2011, the FASB issued ASU 2011-11, *Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities*. This newly issued accounting standard 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 is not expected to have an impact on the Company's financial position or results of operations.

In June 2011, the FASB issued ASU No. 2011-05, *Comprehensive Income (Topic 220): Presentation of Comprehensive Income*. This newly issued accounting standard (1) eliminates the option to present the components of other comprehensive income as part of the statement of changes in stockholders' equity; (2) requires the consecutive presentation of the statement of net income and other comprehensive income; and (3) requires an entity to present reclassification adjustments on the face of the financial statements from other comprehensive income to net income. The amendments in this ASU do not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income nor do the amendments affect how earnings per share is calculated or presented. In December 2011, the FASB issued ASU No. 2011-12, *Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05*, which defers the requirement within ASU 2011-05 to present on the face of the financial statements the effects of reclassifications out of accumulated other comprehensive income on the components of net income and other comprehensive income for all periods presented. During the deferral, entities should continue to report reclassifications out of accumulated other comprehensive income consistent with the presentation requirements in effect prior to the issuance of ASU 2011-05. These ASUs are required to be applied retrospectively and are effective for fiscal years, and interim periods within those years, beginning after December 15, 2011, which for the Company means January 1, 2012. As these accounting standards do not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income, the adoption of these standards is not expected to have an impact on the Company's financial position or results of operations.

In May 2011, the FASB issued ASU No. 2011-04, *Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs*. This newly issued accounting standard clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. This ASU is effective on a prospective basis for annual and interim reporting periods beginning on or after December 15, 2011, which for the Company means January 1, 2012. The adoption of this standard is not expected to have a material impact on the Company's financial position or results of operations.

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### 3. Collaborations, contracts and licensing agreements

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

	Year ended December 31		
	2011	2010	2009
<b>Collaborations and contracts</b>			
Alnylam (a)	\$ 4,142,796	\$ 6,258,535	\$ 8,831,250
U.S. Government (b)	11,432,163	3,560,711	-
Roche (c)	40,232	4,499,689	4,757,842
BMS (d)	432,106	227,995	165,776
Other RNAi collaborators (e)	75,546	376,930	77,048
Total research and development collaborations and contracts	16,122,843	14,923,860	13,831,916
Alnylam licensing fees and milestone payments (a)	524,100	514,129	596,500
Talon license amendment payment (f)	-	5,916,750	-
<b>Total revenue</b>	<b>\$ 16,646,943</b>	<b>\$ 21,354,739</b>	<b>\$ 14,428,416</b>

The following table sets forth deferred collaborations and contracts revenue:

	December 31	
	2011	2010
U.S. Government (b)	\$ 1,593,946	\$ 760,924
Roche (c)	-	40,232
BMS current portion (d)	1,213,952	1,181,108
Deferred revenue, current portion	2,807,898	1,982,264
BMS long-term portion (d)	1,690,529	2,155,478
<b>Total deferred revenue</b>	<b>\$ 4,498,427</b>	<b>\$ 4,137,742</b>

#### (a) 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”) 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.

##### 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 dated August 14, 2007 (the “Alnylam Cross-License”). Alnylam was granted a non-exclusive license to the Protiva intellectual property. Under the Alnylam Cross-License, Alnylam was required to make collaborative research payments at a minimum rate of US\$2,000,000 per annum for the provision of the Company’s research staff. The research collaboration under the Alnylam Cross-License expired on August 13, 2009.

##### Manufacturing agreement with Alnylam

Under a manufacturing agreement with Alnylam (the “Alnylam Manufacturing Agreement”) effective January 1, 2009, the Company is 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 pays the Company for the provision of staff and for external costs incurred. Time charged to Alnylam is 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

# TEKMIRA PHARMACEUTICALS CORPORATION

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three years ending December 31, 2011. From January 1, 2012, at the start of each calendar quarter, Alnylam will prepay for the provision of the Company's staff based on their estimate of work to be performed in that quarter. Any under or over estimate will be redressed at the end of each quarter. Alnylam will continue to pay for external costs incurred by the Company on their behalf on a monthly invoice basis.

## **Licensing fees and milestone payments**

The Company is eligible to receive up to US\$16,000,000 in milestone payments for each RNAi therapeutic advanced by Alnylam or its partners that utilize the Company's technology. The Company is also eligible for royalties on product sales. These milestones and royalties will pass through Alnylam.

In the year ended December 31, 2011, the Company received a \$524,100 (US\$500,000) milestone from Alnylam in respect of the initiation of Alnylam's ALN-PCS Phase 1 human clinical trial. In the year ended December 31, 2010, the Company received a \$514,129 (US\$500,000) milestone payment from Alnylam in respect of the initiation of Alnylam's ALN-TTR01 Phase 1 human clinical trial. In the year ended December 31, 2009, the Company received a \$596,500 (US\$500,000) milestone payment from Alnylam in respect of the initiation of Alnylam's ALN-VSP Phase 1 human clinical trial.

## **(b) Contract with U.S. Government to develop TKM-Ebola**

On July 14, 2010, the Company signed a contract with the United States Government 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, which is expected to last approximately three years and is funded as part of the Transformational Medical Technologies program, the Company is eligible to receive up to US\$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.

The U.S. Government 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 US\$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. Until the Company is able to make a reliable estimate of the final contract costs, only the minimum incentive fee achievable and earned is recognized.

## **(c) Roche collaboration**

On May 11, 2009 the Company announced a product development agreement with F. Hoffman-La Roche Ltd (the "Roche Product Development Agreement"). Under the Roche Product Development Agreement Roche was to pay the Company up to US\$8,800,000 to support the advancement of each Roche RNAi product candidate using the Company's lipid nanoparticle technology through to the filing of an Investigational New Drug ("IND") application.

Under the Roche Product Development Agreement Roche was paying the Company for the provision of staff and for external costs incurred. The Company recognized revenue in proportion to the services provided up to the reporting date by comparing actual hours spent to estimated total hours for each product under the contract. Revenue from external costs incurred on Roche product candidates was recorded in the period that Roche was invoiced for those costs. The difference between service revenue recognized and cash received was recorded in the Company's balance sheet as deferred revenue.

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On November 17, 2010, Roche announced that, as part of a corporate restructuring, they would discontinue research and development in the field of RNAi. Following the announcement Roche confirmed that, except for completing some product stability studies, they would be discontinuing product development with the Company. The stability studies were completed in 2011 and the Company has no further obligation to Roche.

Under a separate February 11, 2009 research agreement with Roche the Company received \$923,151 (US\$765,000) that was recorded as revenue in 2009.

## **(d) Bristol-Myers Squibb collaboration**

On May 10, 2010 the Company announced the expansion of its research collaboration with Bristol-Myers Squibb Company (“Bristol-Myers Squibb”). Under the new agreement, Bristol-Myers Squibb use small interfering RNA (“siRNA”) molecules formulated by the Company in LNP technology to silence target genes of interest. Bristol-Myers Squibb 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 \$3,233,400 (US\$3,000,000) from Bristol-Myers Squibb 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. Bristol-Myers Squibb have a first right to negotiate a licensing agreement on certain RNAi products developed by the Company that evolve from Bristol-Myers Squibb validated gene targets.

Revenue from the May 10, 2010 agreement with Bristol-Myers Squibb is being recognized as the Company produces the related LNP batches.

## **(e) Other RNAi collaborators**

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

## **(f) Agreements with Talon Therapeutics, Inc. (“Talon”, formerly Hana Biosciences, Inc.) and related contingent obligation**

On May 6, 2006, the Company signed a number of agreements with Talon 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 May 27, 2009, the Talon License Agreement was amended to decrease the size of near-term milestone payments and increase the size of long-term milestone payments. On September 20, 2010, the Talon License Agreement was amended a second time such that Talon paid \$5,916,750 (US\$5,750,000) in consideration for reducing certain future payments associated with the product candidates. The payment of \$5,916,750 has been recorded as license amendment revenue. The Company is now eligible for future Talon milestones of up to US\$19,000,000 upon achievement of further development and regulatory milestones and is also eligible to receive royalties on product sales. If Talon sublicenses any of the product candidates, Tekmira is eligible to receive a percentage of any upfront fees or milestone payments received by Talon.

The Company had a contingent obligation that arose through a Purchase and Settlement Agreement dated June 20, 2006 whereby the Company retired exchangeable and development notes in exchange for contingent consideration including certain future milestone and royalty payments from Talon. Concurrent with signing the second amendment of the Talon License Agreement the Company signed a Waiver and Release with certain contingent creditors, the “Former Noteholders”. The balance of the contingent obligation related to the Talon milestones and royalties immediately prior to signing the Waiver and Release was US\$22,835,476. As per the terms of the Waiver and Release, in 2010, the Company paid the Former Noteholders \$5,916,750 (US\$5,750,000) in full settlement of the contingent obligation and recorded the payment as a loss on the purchase and settlement of the exchangeable and development notes. The Company has no further obligation to the Former Noteholders and will retain any future milestones or royalties received from Talon.

## **(g) 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 US\$17,000,000 in milestones for each product it develops using the acquired intellectual property except for the



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first product for which Merck will pay up to US\$15,000,000 in milestones. Merck will also pay royalties on product sales. 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.

## 4. Property and equipment

	Cost	Accumulated depreciation and impairment	Net book value
<b>December 31, 2011</b>			
Lab equipment	\$ 7,688,286	\$ (6,984,194)	\$ 704,092
Leashold improvements	7,212,104	(5,976,916)	1,235,188
Computer hardware and software	3,120,072	(2,869,622)	250,450
Furniture and fixtures	664,029	(656,180)	7,849
	<b>\$ 18,684,491</b>	<b>\$ (16,486,912)</b>	<b>\$ 2,197,579</b>
<b>December 31, 2010</b>			
Laboratory equipment	\$ 7,668,582	\$ (6,554,699)	1,113,883
Leasehold improvements	7,256,186	(5,730,396)	1,525,790
Computer and office equipment	3,080,100	(2,621,522)	458,578
Furniture and fixtures	664,029	(648,864)	15,165
	<b>\$ 18,668,897</b>	<b>\$ (15,555,481)</b>	<b>3,113,416</b>

## 5. Borrowing facility

On December 21, 2011, the Company signed an agreement with Silicon Valley Bank (“SVB”) for a term loan facility (the “loan”) of up to \$3,051,000 (US\$3,000,000). The loan may be drawn down at the Company’s discretion at any time prior to September 30, 2012. The loan matures on June 30, 2015 and carries a fixed interest rate of 8% annually. If the Company draws down on the loan, principal and interest payments will be payable each month starting on October 1, 2012.

In part payment for establishing the loan, the Company has issued SVB 54,545 common share purchase warrants with an exercise price of \$1.65 and an expiration date of December 21, 2018. On the date of issuance, the Black-Scholes aggregate value of the 54,545 warrants was \$35,004 and is based on an assumed risk-free interest rate of 1.48%, volatility of 40%, a zero dividend yield and an expected life of 7 years. The fair value of the warrants at issuance has been recorded as a liability.

At December 31, 2011, the Black-Scholes value of the warrants was \$35,004 and is based on an assumed risk-free interest rate of 1.51%, volatility of 40%, a zero dividend yield and an expected life of 6.98 years.

The Company will provide additional warrants with a value equal to 2% of any draw down on the loan. The Company has not yet drawn down on the loan. The loan is secured by the assets of the Company.

The legal and professional costs of establishing the loan of \$70,095 and the initial fair value of the warrants of \$35,004 have been included in General and Administrative expenses.

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Notes to Consolidated financial statements  
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## 6. Share capital

### (a) Financing

On June 16, 2011, the Company completed a public offering of 1,789,900 units at a price of \$2.85 each for total gross proceeds, before expenses, of \$5,101,215. 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 \$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 \$4,545,647. The total unit issuance cost of \$555,568 has been allocated, on a pro-rata basis, as \$475,568 to the shares and \$80,000 to the warrants and recorded, respectively, to share capital and warrant issuance costs in the statement of loss.

On the date of issuance, the Black-Scholes aggregate value of the 894,950 warrants was \$742,809 and is 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.

At December 31, 2011, the Black-Scholes value of the warrants was \$170,040 and is based on an assumed risk-free interest rate of 1.28%, volatility of 40%, a zero dividend yield and an expected life of 4.5 years. The change in the Black-Scholes value of the warrants from their date of issuance to December 31, 2011 of \$572,769 is reflected in the consolidated statement of operations and comprehensive loss as a "Change in the fair value of warrant liability".

On February 29, 2012, the Company completed a private placement which is described in note 12, subsequent events.

### (b) Authorized share capital

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

### (c) Consolidation of common shares

On November 4, 2010 the Company's common shares were consolidated on a basis of five current common shares for one new common share. All references to common stock, common shares outstanding, average number of common shares outstanding, per share amounts and options in these financial statements and notes thereto have been restated to reflect the common stock consolidation on a retroactive basis.

### (d) 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 to employees, directors and consultants of the Company. The exercise price of the options is determined by the Company's Board of

# TEKMIRA PHARMACEUTICALS CORPORATION

Notes to Consolidated financial statements  
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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.

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

	Number of optioned common shares	Weighted average exercise price	Aggregate intrinsic value
Balance, December 31, 2008	917,685	\$ 11.25	\$ 32,546
Options granted	2,640	4.85	
Options exercised	(3,852)	2.05	11,515
Options forfeited, cancelled or expired	<u>(50,845)</u>	30.90	
Balance, December 31, 2009	865,628	10.10	705,885
Options granted	275,225	4.40	
Options exercised	(9,548)	3.63	29,320
Options forfeited, cancelled or expired	<u>(47,873)</u>	27.38	
Balance, December 31, 2010	1,083,432	7.95	756,628
Options granted	403,100	2.14	
Options exercised	(1,667)	1.50	1,330
Options forfeited, cancelled or expired	<u>(71,547)</u>	27.42	
Balance, December 31, 2011	1,413,318	\$ 5.32	\$ 1,800

Options under the 2007 Plan and 2011 Plan expire at various dates from April 14, 2012 to December 22, 2021.

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

Range of Exercise prices	Options outstanding December 31, 2011			Options exercisable December 31, 2011		
	Number of options outstanding	Weighted average remaining contractual life (years)	Weighted average exercise price	Number of options exercisable	Weighted average exercise price	
\$1.50 to \$1.90	312,006	8.5	\$ 1.71	216,756	\$ 1.71	
\$2.40 to \$2.60	234,200	9.6	2.40	35,300	2.40	
\$3.00 to \$3.85	318,600	6.5	3.51	250,711	3.42	
\$4.60 to \$5.90	384,549	6.4	5.30	359,229	5.34	
\$6.45 to \$11.60	118,596	5.3	7.09	107,861	6.99	
\$49.20 to \$69.00	45,367	1.4	53.37	45,367	53.37	
\$1.50 to \$69.00	1,413,318	7.2	\$ 5.32	1,015,224	\$ 6.31	

At December 31, 2011, there were 1,015,224 options exercisable (December 31, 2010 - 861,549; December 31, 2009 - 754,076) with a weighted average exercise price of \$6.31. The weighted average remaining contractual life of exercisable options as at December 31, 2011 was 6.3 years. The aggregate intrinsic value of options exercisable at December 31, 2011 was \$1,800.

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A summary of the Company's non-vested stock option activity and related information for the year ended December 31, 2011 is as follows:

	Number of optioned common shares	Weighted average fair value
Non-vested at December 31, 2010	221,883	\$ 3.47
Options granted not yet vested	299,450	2.06
Options vested	(113,926)	3.09
Non-vested options forfeited	(9,313)	3.61
Non-vested at December 31, 2011	398,094	\$ 2.51

The weighted average remaining contractual life for options expected to vest at December 31, 2011 was 9.4 years and the weighted average exercise price for these options was \$2.77 per share.

The aggregate intrinsic value of options expected to vest as at December 31, 2011 was \$nil (December 31, 2010 - \$175,905; December 31, 2009 - \$197,827).

The total fair value of options that vested during the year ended December 31, 2011 was \$351,542 (2010 - \$468,105; 2009 - \$496,263).

## 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 no options will be forfeited by senior employees and that approximately 94% of its options issued to non-senior employees will ultimately vest, and based on a three year vesting period has applied an annual forfeiture rate of 2.0% to all unvested options held by non-senior employees as of December 31, 2011. 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		
	2011	2010	2009
Dividend yield	0.00%	0.00%	0.00%
Expected volatility	116.26%	116.90%	144.00%
Risk-free interest rate	2.51%	2.60%	2.50%
Expected average option term	9.6 years	6.6 years	5.0 years
Fair value of options granted	\$ 2.00	\$ 3.82	\$ 4.35

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## 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 statements of operations and comprehensive loss as follows:

	Year ended December 31		
	2011	2010	2009
Research, development, collaborations and contracts expenses	\$ 494,634	\$ 533,508	\$ 207,234
General and administrative expenses	131,485	117,112	58,451
Total	\$ 626,119	\$ 650,620	\$ 265,685

At December 31, 2011, there remains \$735,008 of unearned compensation expense related to unvested employee stock options to be recognized as expense over a weighted-average period of approximately 8 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 \$0.30, were fully vested as of May 30, 2008, expire at various dates from January 22, 2011 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. To December 31, 2009, none of the Protiva Options had been exercised, forfeited or cancelled.

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
Balance, December 31, 2009	519,073	350,457	\$ 0.30
Options exercised	(850)	(574)	0.30
Options forfeited, cancelled or expired	-	-	-
Balance, December 31, 2010	518,223	349,883	0.30
Options exercised	(27,202)	(18,366)	0.30
Options forfeited, cancelled or expired	-	-	-
Balance, December 31, 2011	491,020	331,517	\$ 0.30

The weighted average remaining contractual life of exercisable Protiva Options as at December 31, 2011 was 4.0 years.

The aggregate intrinsic value of Protiva Options outstanding at December 31, 2011 was \$363,230. The intrinsic value of Protiva Options exercised in the year ended December 31, 2011 was \$42,615 (2010 - \$2,688; 2009 - \$nil).

## Awards outstanding and available for issuance

Combining all of the Company's share-based compensation plans, at December 31, 2011, the Company has 1,744,835 options outstanding and a further 136,305 Awards available for issuance.

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## 7. Government grants and refundable investment tax credits

Government grants and refundable investment tax credits have been netted against research and development expenses.

Government grants for the year ended December 31, 2011 include \$nil in funding from the US Army Medical Research Institute for Infectious Diseases (2010 - \$191,194; 2009 - \$775,292).

The Company's estimated claim for refundable Scientific Research and Experimental Development investment tax credits for the year ended December 31, 2011 is \$20,905 (2010 - \$196,556; 2009 - \$139,502).

## 8. 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 26.5% (year ended December 31, 2010 – 28.5%; December 31, 2009 – 30.0%) to the loss before income taxes as shown in the following tables:

	Year ended December 31		
	2011	2010	2009
Computed taxes (recoveries) at Canadian federal and provincial tax rates	\$ (2,633,285)	\$ (3,538,412)	\$ (2,624,747)
Differences due to change in enacted tax rates	712,236		635,462
Difference due to change in tax rate on opening deferred taxes	3,427,057	-	-
Permanent and other differences	143,992	1,409,918	927,938
Change in valuation allowance	(1,650,000)	2,880,000	1,061,347
Utilization of non-capital loss carryforwards	-	(751,506)	-
Income tax (recovery) expense	\$ -	\$ -	\$ -

As at December 31, 2011, the Company has investment tax credits available to reduce Canadian federal income taxes of \$11,093,450 (December 31, 2010 - \$9,277,707) and provincial income taxes of \$5,500,315 (December 31, 2010 - \$4,470,380) and expiring between 2012 and 2031.

At December 31, 2011, the Company has scientific research and experimental development expenditures of \$50,575,034 (December 31, 2010 - \$44,061,609) available for indefinite carry-forward and \$19,037,156 (December 31, 2010 - \$18,991,636) of net operating losses due to expire between 2027 and 2031 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 \$8,000,000.



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Significant components of the Company's deferred tax assets are shown below:

	Year ended December 31	
	2011	2010
Deferred tax assets:		
Non-capital loss carryforwards	\$ 4,438,000	\$ 4,088,000
Research and development deductions	9,295,000	11,015,000
Book amortization in excess of tax	2,779,000	2,938,000
Share issue costs	45,000	146,000
Warrant liability	65,000	-
Revenue recognized for tax purposes in excess of revenue recognized for accounting purposes	1,125,000	1,034,000
Tax value in excess of accounting value in lease inducements	49,000	87,000
Accounting value in excess of tax value in intangible assets	49,000	75,000
Provincial investment tax credits	973,000	1,082,000
Total deferred tax assets	18,818,000	20,465,000
Valuation allowance	(18,818,000)	(20,465,000)
Net deferred tax assets	\$ -	\$ -

## 9. Contingencies and commitments

### Litigation

On March 16, 2011 the Company filed a complaint against Alnylam. On April 6, 2011 Alnylam filed an answer and counter-claim to the Company's complaint. On June 3, 2011, the Company filed an amended complaint against Alnylam and expanded its complaint to include AlCana Technologies, Inc. ("AlCana"). On June 28, 2011 Alnylam filed an amended answer and counter-claim and on July 15, 2011 AlCana filed its answer and counter-claim to the Company's amended complaint.

The Company's amended complaint against Alnylam is for misappropriation and misuse of trade secrets, know-how and other confidential information, unfair and deceptive trade practices, unjust enrichment, unfair competition and false advertising, breach of contract, breach of the implied covenant of good faith and fair dealing, tortious interference with contractual relationships, and civil conspiracy. The suit, filed in the Business Litigation Session of the Massachusetts Superior Court ("BLS Court"), alleges Alnylam exploited its confidential relationship as a collaborator with the Company to misappropriate the Company's proprietary lipid nanoparticle delivery technology, resulting in damage to the Company's intellectual property and business interests. The amended complaint also adds AlCana as a defendant and asserts claims alleging misappropriation of trade secrets, tortious interference with contractual relations, unjust enrichment, unfair and deceptive acts and trade practices, and civil conspiracy against AlCana. The Company is seeking damages based on Alnylam's conduct as alleged in the amended complaint including termination of Alnylam's license to the Company's technology.

Alnylam's answer and amended counter-claim alleges, in summary, breach of contract: contractual dispute resolution and confidentiality provisions, defamation, breach of covenant not to sue, breach of patent prosecution cooperation and non-use provisions, and breach of an implied covenant of good faith and fair dealing. Alnylam's defamation counter-claim was dismissed by the BLS Court in September 2011 including an award of attorney's fees and costs. The BLS Court has set a trial date of October 30, 2012.

AlCana's answer and amended counter-claim alleges, in summary, breach of contract and breach of an implied covenant of good faith and fair dealing.

The Company has signed an agreement with its legal counsel with respect to this litigation that includes success-based contingent fees.

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On November 16, 2011, the Company disclosed that it had filed a Notice of Civil Claim in the Supreme Court of British Columbia against certain individuals from AICana alleging that thousands of confidential documents containing the Company's confidential information and trade secrets were downloaded and taken. The Company also filed a Notice of Application seeking an injunction ordering the documents and derivative materials be returned. The Company is also seeking general and punitive damages. On January 10, 2012, the Company disclosed that the Supreme Court of British Columbia had granted its application for an injunction that orders confidential documents and materials be returned to the Company and prohibits the use of the Company's confidential information. The injunction also requires the defendants to identify every person and corporation to whom the information was provided or communicated.

On January 17, 2012, the Company disclosed that Alnylam filed a patent infringement lawsuit against Tekmira in the U.S. District Court of Massachusetts. Isis Pharmaceuticals, Inc. is named as a co-plaintiff in the suit. The context for this infringement suit has arisen out of the Company's ongoing litigation with Alnylam and AICana.

The Company has not recorded an estimated liability associated with Alnylam's answer and amended counter-claim or patent infringement lawsuit due to the uncertainties related to both the likelihood and the amount of any potential loss. The Company has not recorded an estimated liability for contingently payable success-based legal fees due to uncertainties related to the outcome of the lawsuit. At December 31, 2011, the contingent obligation was \$4,524,765 (US\$4,449,129).

## 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.

Following the lease amendment the minimum commitment, contracted sub-lease income and net commitment for rent and estimated operating costs, are as follows:

	Lease commitment	Sub-lease income	Net commitment
Year ended December 31, 2012	\$ 1,285,000	\$ (186,000)	\$ 1,099,000
Year ended December 31, 2013	1,285,000	-	1,285,000
Year ended December 31, 2014	750,000	-	750,000
	\$ 3,320,000	\$ (186,000)	\$ 3,134,000

The Company's lease expense, net of sub-lease income, for the year ended December 31, 2011 of \$933,528 has been recorded in the consolidated statements of operations and comprehensive loss in research, development, collaborations and contracts and general and administrative expenses (2010 - \$931,606; 2009 - \$1,008,290).

The Company has netted \$194,281 of sub-lease income against lease expense in the year ended December 31, 2011 (year ended December 31, 2010 - \$194,281; 2009 - \$191,376).

## 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 \$9,329,912. As at December 31, 2011, a cumulative contribution of \$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 royalties on

# TEKMIRA PHARMACEUTICALS CORPORATION

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the share of future product revenue, if any, for Marqibo that is received by the Company. To December 31, 2011 the Company had not made any royalty payments to TPC.

## **Contingently payable promissory notes**

On March 25, 2008, Protiva declared dividends totaling US\$12,000,000. The dividend was 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 US\$12,000,000 in license payments from Merck (see note 3(h)). 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 US\$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 (the "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 \$97,940 (US\$100,000) and recorded this amount as a research and development expense in the consolidated statement of operations and comprehensive loss.

Under the Agreement, the maximum future license fees and other contingent payments are US\$1,960,000 and the Company will pay up to US\$12,700,000 in milestones on each product developed plus royalties.

## **10. 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. Accounts receivable from the U.S. Government as at December 31, 2011 were \$747,720 and represent 85% of total accounts receivable as at that date (December 31, 2010 - \$2,031,980 and 61%). Accounts receivable from Alnylam as at December 31, 2011 were \$27,178 and represent 3% of total accounts receivable as at that date (December 31, 2010 - \$836,655 and 25%).

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, 2011 was the accounts receivable balance of \$880,693 (December 31, 2010 - \$3,318,729).

All accounts receivable balances were current as at December 31, 2011 and December 31, 2010.

### **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, cash balances and a debt facility.

The Company's liquidity risk is primarily attributable to its cash, cash equivalents and debt facility. The Company limits exposure to liquidity risk on its liquid assets through maintaining its cash and cash equivalent

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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. Under the terms of the debt facility, if a material adverse event occurs prior to draw down, the lender may chose to cancel the facility.

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, cash equivalents and debt facility funds available (note 5) less accounts payable and accrued liabilities.

	December 31	
	2011	2010
Cash, cash equivalents and short term investments	\$ 9,184,134	\$ 12,346,010
Debt facility available (US\$3,000,000)	3,051,000	-
Less: Debt facility repayments in first 12 months	(1,135,000)	
Less: Accounts payable and accrued liabilities	(3,972,551)	(6,151,923)
	<b>\$ 7,127,583</b>	<b>\$ 6,194,087</b>

## Foreign currency risk

The Company's revenues and operating expenses are denominated in both Canadian and US dollars so the results of the Company's operations are subject to currency transaction and translation risk.

The operating results and financial position of the Company are reported in Canadian dollars in the Company's financial statements. 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 and the amount of shareholders' equity.

The Company manages its US dollar exchange rate risk by, whenever possible, using cash received from US dollar revenues to pay US dollar expenses and by limiting its holdings of US dollar cash and cash equivalent balances to working capital levels. The Company has not entered into any agreements or purchased any instruments to hedge possible currency risks at this time.

The Company's exposure to US dollar currency expressed in Canadian dollars was as follows:

	December 31	
	2011	2010
Cash and cash equivalents	\$ 1,259,029	\$ 1,067,205
Accounts receivable	780,176	2,042,065
Accounts payable and accrued liabilities	(2,365,191)	(3,485,715)
	<b>\$ (325,986)</b>	<b>\$ (376,445)</b>

An analysis of the Company's sensitivity to foreign currency exchange rate movements is not provided in these financial statements as a large proportion of the Company's foreign currency purchases are reimbursed by collaborators and customers which mitigates the Company's foreign currency risk.

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## 11. Supplementary information

Accounts payable and accrued liabilities is comprised of the following:

	December 31	
	2011	2010
Trade accounts payable	\$ 1,284,737	\$ 3,035,273
Research and development accruals	228,942	1,241,630
Professional fee accruals	1,669,838	1,030,405
Restructuring cost accruals	36,134	34,999
Deferred lease inducements	196,966	346,098
Other accrued liabilities	555,934	463,518
	<b>\$ 3,972,551</b>	<b>\$ 6,151,923</b>

## 12. Subsequent event

### Private Placement Financing

On February 29, 2012, the Company completed a private placement offering of 1,848,601 units at a price of \$2.20 each for total gross proceeds, before expenses, of \$4,066,922. 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 \$2.60. The warrants expire on February 28, 2017.

On the date of issuance, the Black-Scholes aggregate value of the 924,302 warrants was \$794,900 and is 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.