

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

Form 10-Q

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

For the quarterly period ended March 31, 2014

OR

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

For the Transition Period from            to

Commission File Number: 001-34949

**Tekmira Pharmaceuticals Corporation**  
(Exact Name of Registrant as Specified in Its Charter)

**British Columbia, Canada**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**980597776**  
(I.R.S. Employer  
Identification No.)

**100-8900 Glenlyon Parkway, Burnaby, BC, Canada**  
(Address of Principal Executive Offices)

**V5J 5J8**  
(Zip Code)

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

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

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

---

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

Large accelerated filer

Accelerated filer

Non-accelerated filer   
(Do not check if a smaller reporting  
company)

Smaller reporting company

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

As of May 8, 2014, the registrant had 22,076,852 common shares, no par value, outstanding.

---

TEKMIRA PHARMACEUTICALS CORP.

TABLE OF CONTENTS

	<b>Page</b>
<u>PART I. FINANCIAL INFORMATION</u>	<u>4</u>
<u>ITEM 1. FINANCIAL STATEMENTS (Unaudited)</u>	<u>4</u>
<u>ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>16</u>
<u>ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>28</u>
<u>ITEM 4. CONTROLS AND PROCEDURES</u>	<u>28</u>
<u>PART II. OTHER INFORMATION</u>	<u>29</u>
<u>ITEM 1. LEGAL PROCEEDINGS</u>	<u>29</u>
<u>ITEM 1A. RISK FACTORS</u>	<u>29</u>
<u>ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS</u>	<u>29</u>
<u>ITEM 3. DEFAULTS UPON SENIOR SECURITIES</u>	<u>29</u>
<u>ITEM 4. MINE SAFETY DISCLOSURES</u>	<u>29</u>
<u>ITEM 5. OTHER INFORMATION</u>	<u>29</u>
<u>ITEM 6. EXHIBITS</u>	<u>29</u>
<u>SIGNATURES</u>	<u>30</u>

---

**PART I. FINANCIAL INFORMATION**

**ITEM 1. FINANCIAL STATEMENTS (Unaudited)**

**TEKMIRA PHARMACEUTICALS CORPORATION**

**Condensed Consolidated Balance Sheets**

(Unaudited)

(Expressed in US Dollars and in thousands, except share and per share amounts)

(Prepared in accordance with US GAAP)

	<b>March 31</b>	December 31
	<b>2014</b>	2013
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 134,357	\$ 68,717
Accounts receivable	1,521	117
Accrued revenue	412	212
Deferred expenses	111	173
Investment tax credits receivable	39	40
Prepaid expenses and other assets	561	1,084
<b>Total current assets</b>	<b>137,001</b>	<b>70,343</b>
Property and equipment	13,367	13,039
Less accumulated depreciation	(11,846)	(11,666)
Property and equipment, net of accumulated depreciation	1,521	1,373
<b>Total assets</b>	<b>\$ 138,522</b>	<b>\$ 71,716</b>
<b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Accounts payable and accrued liabilities (note 4)	\$ 4,594	\$ 3,680
Deferred revenue (note 3)	5,621	3,463
Warrants (note 2)	12,824	5,379
<b>Total current liabilities</b>	<b>23,039</b>	<b>12,522</b>
Deferred revenue, net of current portion (note 3)	10,000	-
<b>Total liabilities</b>	<b>33,039</b>	<b>12,522</b>
<b>Stockholders' equity:</b>		
Common shares (note 5) Authorized - unlimited number with no par value		
Issued and outstanding: 21,992,088 (December 31, 2013 - 19,048,900)	283,640	216,702
Additional paid-in capital	24,837	25,343
Deficit	(185,011)	(167,027)
Accumulated other comprehensive income (loss)	(17,983)	(15,824)
<b>Total stockholders' equity</b>	<b>105,483</b>	<b>59,194</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 138,522</b>	<b>\$ 71,716</b>

Nature of business and future operations (note 1)

Contingencies and commitments (note 7)

See accompanying notes to the condensed consolidated financial statements.

**TEKMIRA PHARMACEUTICALS CORPORATION**
**Condensed Consolidated Statements of Operations and Comprehensive Loss**

(Unaudited)

(Expressed in US Dollars and in thousands, except share and per share amounts)

(Prepared in accordance with US GAAP)

	<b>Three months ended</b>	
	<b>March 31</b>	
	<b>2014</b>	<b>2013</b>
<b>Revenue (note 3)</b>		
Collaborations and contracts	\$ 3,689	\$ 2,132
Licensing fees, milestone and royalty payments	741	-
<b>Total revenue</b>	<b>4,430</b>	<b>2,132</b>
<b>Expenses</b>		
Research, development, collaborations and contracts	8,204	4,067
General and administrative	2,050	893
Depreciation of property and equipment	134	166
<b>Total expenses</b>	<b>\$ 10,388</b>	<b>\$ 5,126</b>
<b>Loss from operations</b>	<b>(5,958)</b>	<b>(2,994)</b>
<b>Other income (losses)</b>		
Interest income	147	145
Foreign exchange gains (losses)	1,443	(5)
(Increase) decrease in fair value of warrant liability	(13,616)	308
<b>Net loss</b>	<b>\$ (17,984)</b>	<b>\$ (2,546)</b>
<b>Income (loss) per common share</b>		
Basic and diluted	\$ (0.91)	\$ (0.18)
<b>Weighted average number of common shares</b>		
Basic and diluted	19,801,428	14,344,152
<b>Comprehensive loss</b>		
Cumulative translation adjustment	(2,159)	(876)
<b>Comprehensive loss</b>	<b>\$ (20,143)</b>	<b>\$ (3,422)</b>

See accompanying notes to the condensed consolidated financial statements.

**TEKMIRA PHARMACEUTICALS CORPORATION**
**Condensed Consolidated Statement of Stockholders' Equity**

(Unaudited)

(Expressed in US Dollars and in thousands, except share and per share amounts)

(Prepared in accordance with US GAAP)

	Number of shares	Share capital	Additional paid-in capital	Deficit	Accumulated other comprehensive loss	Total stockholders' equity
Balance, December 31, 2013	19,048,900	\$ 216,702	\$ 25,343	\$ (167,027)	\$ (15,824)	\$ 59,194
Stock-based compensation	-	-	1,188	-	-	1,188
Issuance of common shares pursuant to exercise of options	475,210	3,618	(1,694)	-	-	1,924
Issuance of common shares pursuant to exercise of warrants	342,978	6,843	-	-	-	6,843
Issuance of common shares in conjunction with the private offering, net of issuance costs of \$4,085,000	2,125,000	56,477	-	-	-	56,477
Currency translation adjustment	-	-	-	-	(2,159)	(2,159)
Net loss	-	-	-	(17,984)	-	(17,984)
<b>Balance, March 31, 2014</b>	<b>21,992,088</b>	<b>\$ 283,640</b>	<b>\$ 24,837</b>	<b>\$ (185,011)</b>	<b>\$ (17,983)</b>	<b>\$ 105,483</b>

See accompanying notes to the condensed consolidated financial statements.

**TEKMIRA PHARMACEUTICALS CORPORATION**
**Condensed Consolidated Statements of Cash Flow**

(Unaudited)

(Expressed in US Dollars and in thousands, except share and per share amounts)

(Prepared in accordance with US GAAP)

	<b>Three months ended</b>	
	<b>March 31</b>	
	<b>2014</b>	<b>2013</b>
<b>OPERATING ACTIVITIES</b>		
Loss for the period	\$ (17,984)	\$ (2,546)
Items not involving cash:		
Depreciation of property and equipment	134	166
Stock-based compensation - research, development, collaborations and contract expenses	848	103
Stock-based compensation - general and administrative expenses	340	28
Unrealized foreign exchange (gains) losses	(59)	6
Warrant issuance costs		
Change in fair value of warrant liability	13,616	(308)
Net change in non-cash operating items:		
Accounts receivable	(1,409)	(417)
Accrued revenue	(208)	(1,106)
Deferred expenses	55	60
Prepaid expenses and other assets	482	(494)
Accounts payable and accrued liabilities	1,051	807
Deferred revenue	12,289	861
<b>Net cash provided by (used in) operating activities</b>	<b>9,155</b>	<b>(2,840)</b>
<b>INVESTING ACTIVITIES</b>		
Acquisition of property and equipment	(335)	(201)
<b>Net cash used in investing activities</b>	<b>(335)</b>	<b>(201)</b>
<b>FINANCING ACTIVITIES</b>		
Proceeds from issuance of common shares, net of issuance costs	56,477	-
Issuance of common shares pursuant to exercise of options	1,924	82
Issuance of common shares pursuant to exercise of warrants	888	56
<b>Net cash provided by financing activities</b>	<b>59,289</b>	<b>138</b>
Effect of foreign exchange rate changes on cash & cash equivalents	(2,469)	(999)
<b>Increase (decrease) in cash and cash equivalents</b>	<b>65,640</b>	<b>(3,902)</b>
Cash and cash equivalents, beginning of period	68,717	47,024
<b>Cash and cash equivalents, end of period</b>	<b>\$ 134,357</b>	<b>\$ 43,122</b>
<b>Supplemental cash flow information</b>		
Fair value of warrants exercised on a cashless basis	\$ -	\$ 107

See accompanying notes to the condensed consolidated financial statements.

## TEKMIRA PHARMACEUTICALS CORPORATION

Notes to condensed consolidated financial statements (unaudited)

(Expressed in US dollars – tabular amounts in thousands)

---

### 1. Nature of business and future operations

Tekmira Pharmaceuticals Corporation (the “Company”) is a Canadian biopharmaceutical business focused on advancing novel RNA interference therapeutics.

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

### 2. Significant accounting policies

#### *Basis of presentation*

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

These unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles of the United States of America (“U.S. GAAP”) for interim financial statements and accordingly, do not include all disclosures required for annual financial statements. These statements should be read in conjunction with the Company’s audited consolidated financial statements and notes thereto for the year ended December 31, 2013 and included in the Company’s 2013 annual report on Form 10-K. The unaudited condensed consolidated financial statements reflect, in the opinion of management, all adjustments and reclassifications necessary to present fairly the financial position, results of operations and cash flows at March 31, 2014 and for all periods presented. The results of operations for the three months ended March 31, 2014 and March 31, 2013 are not necessarily indicative of the results for the full year. These condensed consolidated financial statements follow the same significant accounting policies as those described in the notes to the audited consolidated financial statements of the Company for the year ended December 31, 2013, except as described below.

#### *Principles of Consolidation*

The Company has three wholly-owned subsidiaries: Protiva Biotherapeutics Inc., Protiva Biotherapeutics (USA) Inc., and Protiva Agricultural Development Company Inc. (“PADCo”).

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

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

#### *Comparative Information*

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

#### *Income or loss per share*

Income or loss per share is calculated based on the weighted average number of common shares outstanding. Diluted loss per share does not differ from basic loss per share since the effect of the Company’s stock options and warrants is anti-dilutive. Diluted income per share is calculated using the treasury stock method which uses the weighted average number of common shares outstanding during the period and also includes the dilutive effect of potentially issuable common shares from outstanding, in-the-money stock options and warrants. At March 31, 2014, potential common shares of 2,565,029 (March 31, 2013 – 3,467,756) were excluded from the calculation of income per common share because their inclusion would be anti-dilutive.

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements (unaudited)

(Expressed in US dollars – tabular amounts in thousands)

***Fair value of financial instruments***

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

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

- Level 1 inputs are quoted market prices for identical instruments available in active markets.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly. If the asset or liability has a contractual term, the input must be observable for substantially the full term. An example includes quoted market prices for similar assets or liabilities in active markets.
- Level 3 inputs are unobservable inputs for the asset or liability and will reflect management's assumptions about market assumptions that would be used to price the asset or liability.

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

	Level 1	Level 2	Level 3	March 31, 2014
<b>Assets</b>				
Cash	\$ 134,357	-	-	\$ 134,357
<b>Liabilities</b>				
Warrants	-	-	\$ 12,824	\$ 12,824
Financial Instrument	-	-	0	0
Total	-	-	\$ 12,824	\$ 12,824

	Level 1	Level 2	Level 3	December 31, 2013
<b>Assets</b>				
Cash	\$ 68,717	-	-	\$ 68,717
<b>Liabilities</b>				
Warrants	-	-	\$ 5,379	\$ 5,379

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

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements (unaudited)

(Expressed in US dollars – tabular amounts in thousands)

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

	Liability at beginning of the period	Opening liability of warrants issued in the period	Fair value of warrants exercised in the period	Increase (decrease) in value of warrants	Foreign exchange (gain) loss	Liability at end of the period
Three months ended March 31, 2014	\$ 5,379	-	\$ (5,955)	\$ 13,616	\$ (216)	\$ 12,824

The change in fair value of warrant liability for the three months ended March 31, 2014 is recorded in the statement of operations and comprehensive loss.

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

	March 31, 2014	December 31, 2013
Dividend yield	0.00%	0.00%
Expected volatility	66.16%	47.03%
Risk-free interest rate	1.06%	1.13%
Expected average term (years)	1.3	1.6
Fair value of warrants outstanding	\$ 21.10	\$ 5.30
Aggregate fair value of warrants outstanding	\$ 12,824	\$ 5,379

**Foreign currency translation and change in reporting currency**

The functional currency of the Company is the Canadian dollar. For the Company and its integrated and consolidated 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 average rate of exchange is used to translate revenue and expense transactions. Exchange gains and losses are included in income or loss for the period.

Effective October 1, 2013, the Company began using United States dollars as its reporting currency. All assets and liabilities are translated using the exchange rate at the balance sheet date (March 31, 2014 – 0.9046; December 31, 2013 – 0.9402). Revenues, expenses and other income (losses) are translated using the average rate for the period (three months ended March 31, 2014 – 0.9061; three months ended March 31, 2013 – 0.9710), except for large transactions, for which the exchange rate on the date of the transaction is used. Equity accounts are translated using the historical rate. As the translation differences from the Company's functional currency of Canadian dollars to the Company's reporting currency of U.S. dollars are unrealized gains and losses, the differences are recorded in other comprehensive income (loss), and do not impact the calculation of Income or Loss per Share.

**Recent accounting pronouncements**

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

In July 2013, the FASB issued ASU 2013-11, Income Taxes (ASC 740) *Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carry forward, a Similar Tax Loss, or a Tax Credit Carry forward Exists* (Update). The update is intended to eliminate the diversity in practice of the presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The update is effective for annual and interim financial statements for fiscal years beginning after December 15, 2013. The amendments should be applied prospectively to all unrecognized tax benefits that exist at the effective date. Retrospective application is permitted. The adoption of this guidance on January 1, 2014 did not have an impact on the Company's consolidated financial statements.

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements (unaudited)

(Expressed in US dollars – tabular amounts in thousands)

In March 2014, the FASB issued ASU 2014-06, *Technical Corrections and Improvements Related to Glossary Terms* (Update). The update contains amendments that affect a wide variety of Topics in the Codification, and represent changes to clarify the Master Glossary of the Codification. The update does not have transition guidance and is effective upon issuance. The adoption of this guidance did not have an impact on the Company's consolidated financial statements.

**3. Collaborations, contracts and licensing agreements**

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

	<b>Three months ended March 31</b>	
	<b>2014</b>	<b>2013</b>
<b>Collaborations and contracts</b>		
DoD (a)	\$ 3,240	\$ 1,900
Monsanto (b)	243	-
BMS (d)	206	232
Total research and development collaborations and contracts	<b>3,689</b>	<b>2,132</b>
<b>Licensing fees, milestone and royalty payments</b>		
Monsanto licensing fees and milestone payments (b)	545	-
Acuitas milestone payments (c)	150	-
Spectrum royalty payments (f)	46	-
Total licensing fees, milestone and royalty payments	<b>741</b>	<b>-</b>
<b>Total revenue</b>	<b>\$ 4,430</b>	<b>\$ 2,132</b>

The following table sets forth deferred collaborations and contracts revenue, in thousands:

	<b>March 31, 2014</b>	<b>December 31, 2013</b>
DoD (a)	\$ 473	\$ 1,655
Monsanto current portion (b)	3,594	-
BMS (d)	1,534	1,808
Other RNAi collaborators (e)	20	-
Deferred revenue, current portion	<b>5,621</b>	<b>3,463</b>
Monsanto long-term portion (b)	<b>10,000</b>	<b>-</b>
<b>Total deferred revenue</b>	<b>\$ 15,621</b>	<b>\$ 3,463</b>

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

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

In the initial phase of the contract, funded as part of the Transformational Medical Technologies program, the Company was eligible to receive up to \$34.7 million. This initial funding is for the development of TKM-Ebola including completion of preclinical development, filing an Investigational New Drug application with the United States Food and Drug Administration ("FDA") and completing a Phase 1 human safety clinical trial. On May 8, 2013, the Company announced that the contract had been modified to support development plans that integrate recent advancements in lipid nanoparticle ("LNP") formulation and manufacturing technologies. On April 22, 2014, the Company and the DoD signed a contract modification to increase the stage one targeted funding by \$2,100,000 to \$43,819,000. The additional funding is to compensate the Company for unrecovered overheads related to the temporary stop-work period that occurred in 2012 and to provide additional overhead funding should it be required.

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements (unaudited)

(Expressed in US dollars – tabular amounts in thousands)

The DoD has the option of extending the contract beyond the initial funding period to support the advancement of TKM-Ebola through to the completion of clinical development and FDA approval. Based on the contract's original budget this would provide the Company with up to \$139,972,000 in funding for the entire program.

Under the contract, the Company is reimbursed for costs incurred, including an allocation of overhead costs, and is paid an incentive fee. At the beginning of the fiscal year the Company estimates its labour and overhead rates for the year ahead. At the end of the year the actual labour and overhead rates are calculated and revenue is adjusted accordingly. The Company's actual labour and overhead rates will differ from its estimated rates based on actual costs incurred and the proportion of the Company's efforts on contracts and internal products versus indirect activities. Within minimum and maximum collars, the amount of incentive fee the Company can earn under the contract varies based on costs incurred versus budgeted costs. During the contractual period, incentive fee revenue and total costs are impacted by management's estimate and judgments which are continuously reviewed and adjusted as necessary using the cumulative catch-up method. At March 31, 2014, the Company believes it can reliably estimate the final contract costs so has recognized the portion of expected incentive fee which has been earned to date.

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

On January 13, 2014, the Company and Monsanto signed an Option Agreement and a Services Agreement (together, the "Agreements"). Under the Agreements, Monsanto has an option to obtain a license to use the Company's proprietary delivery technology and related intellectual property for use in agriculture. Over the option period, which is expected to be approximately four years, the Company will provide lipid formulations for Monsanto's research and development activities, and Monsanto will make certain payments to the Company to maintain its option rights. The maximum potential value of the transaction is \$86,200,000 following the successful completion of milestones. In January 2014, the Company received \$14,500,000 of the \$16,500,000 near term payments as outlined in the terms of the Agreements. The payments received relate to research services and use of the Company's technology over the option period, and are recognized as revenue on a straight-line basis over four years.

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

**(c) License and collaboration with Alnylam Pharmaceuticals, Inc. ("Alnylam") and Acuitas Therapeutics Inc. ("Acuitas", formerly AICana Technologies Inc.)**

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

The licensing agreement grants Alnylam license rights to the Company's patents that were filed, or that claim priority to a patent that was filed, before April 15, 2010. Alnylam does not have rights to the Company's patents filed after April 15, 2010 unless they claim priority to a patent filed before that date. In addition, Alnylam has transferred all agreed upon patents and patent applications related to lipid nanoparticle ("LNP") technology for the systemic delivery of RNAi therapeutic products, including the MC3 lipid family, to the Company, who will own and control prosecution of this intellectual property portfolio. The Company is the only entity able to sublicense its LNP intellectual property in future platform-type relationships. Alnylam has a license to use the Company's intellectual property to develop and commercialize products and may only grant access to the Company's LNP technology to its partners if it is part of a product sublicense. Alnylam will pay the Company milestones and royalties as Alnylam's LNP-enabled products are developed and commercialized.

## TEKMIRA PHARMACEUTICALS CORPORATION

Notes to condensed consolidated financial statements (unaudited)

(Expressed in US dollars – tabular amounts in thousands)

---

The licensing agreement with Alnylam also grants the Company intellectual property rights to develop its own proprietary RNAi therapeutics. Alnylam has granted the Company a worldwide license for the discovery, development and commercialization of RNAi products directed to thirteen gene targets – three exclusive and ten non-exclusive licenses – provided that they have not been committed by Alnylam to a third party or are not otherwise unavailable as a result of the exercise of a right of first refusal held by a third party or are part of an ongoing or planned development program of Alnylam. Licenses for five of the ten non-exclusive targets – ApoB, PLK1, Ebola, WEE1, and CSN5 – have already been granted, along with an additional license for ALDH2, which has been granted on an exclusive basis. In consideration for this license, the Company has agreed to pay single-digit royalties to Alnylam on product sales and have milestone obligations of up to \$8,500,000 on the non-exclusive licenses (with the exception of TKM-Ebola, which has no milestone obligations). Alnylam no longer has “opt-in” rights to the Company’s lead oncology product, TKM-PLK1, so the Company now holds all development and commercialization rights related TKM-PLK1. The Company will have no milestone obligations on the three exclusive licenses.

### **Milestone receipts and payments**

In November 2013, Alnylam initiated a Phase III trial with ALN-TTR02, also known as patisiran, and the associated \$5,000,000 development milestone was paid to the Company in December 2013. In the three months ended March 31, 2014, the Company earned a \$150,000 milestone from Acuitas, subsequent to Acuitas receiving a milestone payment from Alnylam with respect to patisiran.

### **Arbitration with Alnylam and Asclepis Pharmaceuticals (Hangzhou) Co. Ltd. (“Asclepis”)**

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

### **(d) Bristol-Myers Squibb (“BMS”) collaboration**

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

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

In December 2013, a decision was made to extend the agreement’s end date from May 10, 2014 to December 31, 2014. Extending the agreement will give BMS more time to order LNP batches, and resulted in a cumulative revenue adjustment recorded for the year-ended December 31, 2013. The revenue earned for the three months ended March 31, 2014 relate to BMS batches shipped during the period.

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

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

### **(f) Agreements with Spectrum Pharmaceuticals, Inc. (“Spectrum”)**

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

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

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements (unaudited)

(Expressed in US dollars – tabular amounts in thousands)

Talon was acquired by Spectrum in July 2013. The acquisition does not affect the terms of the license between Talon and the Company. On September 3, 2013, Spectrum announced that they had shipped the first commercial orders of Marqibo. For the three months ended March 31, 2014, the Company recorded \$46,000 in Marqibo royalty revenue (three months ended March 31, 2013 - \$nil). For the three months ended March 31, 2014, the Company accrued 2.5% in royalties due to TPC in respect of the Marqibo royalty earned by the Company – see note 7, contingencies and commitments.

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

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

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

**4. Accounts payable and accrued liabilities**

Accounts payable and accrued liabilities is comprised of the following, in thousands:

	March 31, 2014	December 31, 2013
Trade accounts payable	\$ 2,141	\$ 1,217
Research and development accruals	1,381	1,405
Professional fee accruals	553	247
Deferred lease inducements	9	16
Other accrued liabilities	510	795
	<b>\$ 4,594</b>	<b>\$ 3,680</b>

**5. Financing**

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

**6. Concentrations of credit risk**

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

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

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at March 31, 2014 was the accounts receivable balance of \$1,521,000 (December 31, 2013 - \$117,000).

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

**7. Contingencies and commitments****Product development partnership with the Canadian Government**

The Company entered into a Technology Partnerships Canada ("TPC") agreement with the Canadian Federal Government on November 12, 1999. Under this agreement, TPC agreed to fund 27% of the costs incurred by the Company, prior to March 31, 2004, in the development of certain oligonucleotide product candidates up to a maximum contribution from TPC of \$7,179,000 (C\$9,323,000). As at March 31, 2014, a cumulative contribution of \$3,348,000 (C\$3,702,000) has been received and the Company does not expect any further funding under this agreement. In return for the funding provided by TPC, the Company agreed to pay royalties on the share of future licensing and product revenue, if any, that is received by the Company on certain non-siRNA oligonucleotide product candidates covered by the funding under the agreement. These royalties are payable until a certain cumulative payment amount is achieved or until a pre-specified date. In addition, until a cumulative amount equal to the funding actually received under the agreement has been paid to TPC, the Company agreed to pay 2.5% royalties on any royalties the Company receives for Marqibo. For the three months ended March 31, 2014, the Company earned royalties on Marqibo sales in the amount of \$46,000 (three months ended March 31, 2013 – nil) (see note 3(f)), resulting in \$1,000 being recorded by the Company as royalty payable to TPC (December 31, 2013 - \$1,000). The cumulative amount paid or accrued up to March 31, 2014 was \$2,000, resulting in the contingent amount due to TPC being \$3,346,000 (C\$3,700,000).

**Contingently payable promissory notes**

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

**License agreement with Marina Biotech, Inc. ("Marina")**

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

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

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

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

**Service agreement with Monsanto Company ("Monsanto")**

On January 13, 2014, the Company and Monsanto signed Services Agreement ("the Agreement") concurrently with the Option agreement, discussed in note 3. Under the Agreement, the Company will make payments to Monsanto for research services over the option period, which is expected to be approximately four years, up to a maximum of \$5,000,000. In January 2014, the Company paid \$250,000 to Monsanto for research services and expects to make further payments each of \$250,000 in April 2014, July 2014 and October 2014.

## ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*You should read the following discussion and analysis by our management of our financial position and results of operations in conjunction with our audited consolidated financial statements and related notes thereto included as part of our Annual Report on Form 10-K for the year ended December 31, 2013 and our unaudited condensed consolidated financial statements for the three month period ended March 31, 2014. Our consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles and are presented in U.S. dollars.*

### FORWARD-LOOKING STATEMENTS

The information in this report contains forward-looking information and forward-looking statements (collectively, forward-looking statements) within the meaning of applicable securities laws. All statements other than statements relating to historical matters should be considered forward-looking statements. When used in this report, the words "believe," "expect," "plan," "anticipate," "estimate," "predict," "may," "could," "should," "intend," "will," "target," "goal" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these words. Forward-looking statements in this report include statements about Tekmira's strategy, future operations, clinical trials, prospects and the plans of management; RNAi (ribonucleic acid interference) product development programs; the effects of Tekmira's products on the treatment of cancer, chronic Hepatitis B infection, infectious disease, alcohol use disorder, and other diseases; new product development and partnering opportunities; the potency and broader therapeutic index of third generation-LNP formulation; TKM-HBV preclinical data in the second half of 2014; filing an Investigational New Drug (IND) application in the second half of 2014 in order to advance TKM-HBV into a Phase I clinical trial, with data available in 2015; Gastrointestinal Neuroendocrine Tumors (GI-NET) or Adrenocortical Carcinoma (ACC) enrollment in a Phase I/II clinical trial with TKM-PLK1, and expected interim data from this trial in the second half of 2014; initiation of another Phase I/II clinical trial with TKM-PLK1 enrolling patients with Hepatocellular Carcinoma (HCC) in the second quarter of 2014; completion of necessary preclinical work to be in a position to file an IND in the second half of 2014 in order to advance TKM-ALDH2 into a Phase I clinical trial, and the expectation of proof-of-concept with alcohol challenge including ALDH2 knockdown, acetaldehyde build up and ethanol toxicity obtained in the Phase I clinical trial with data available in 2015; potential government funding sources for new therapeutic strategies for alcohol use disorder and Tekmira's exploration and leveraging of these partnership opportunities; the Phase I clinical trial with TKM-Ebola; Fast Tract designation from the US FDA for the development of TKM-Ebola; completion of the necessary preclinical work to be in a position to file an the development of TKM-Ebola under the "Animal Rule"; additional funding opportunities or development partnerships for TKM-Marburg; our focus on rare diseases, including glycogen storage diseases and rare forms of hypertriglyceridemia; the generation of data and the expectation of identifying another development candidate in 2014; Alnylam's three LNP-based products in clinical development (ALN-TTR02 (patisiran), ALN-VSP and ALN-PCS02); arbitration proceedings with Alnylam in connection with ALN-VSP; the potential quantum of value of the transactions contemplated in the Monsanto option agreement; ongoing advances in next-generation LNP technologies; anticipated royalty receipts based on sales of Marqibo; our worldwide, non-exclusive license to Unlocked Nucleobase Analog from Marina; the extension of our collaboration agreement with BMS; future changes in the fair value of our warrant liability based on our share price; statements regarding the sufficiency of our cash resources for the next 12 months; statements with respect to revenue and expense fluctuation and guidance; the quantum and timing of potential funding.

With respect to the forward-looking statements contained in this report, Tekmira has made numerous assumptions regarding, among other things: LNP's status as a leading RNAi delivery technology; Tekmira's research and development capabilities and resources; the effectiveness of Tekmira's products as a treatment for cancer, chronic Hepatitis B infection, infectious disease, alcohol use disorder, or other diseases; the timing and quantum of payments to be received under contracts with Tekmira's partners including Alnylam, Spectrum, Monsanto and the DoD; and Tekmira's financial position and its ability to execute its business strategy. While Tekmira considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties and contingencies.

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

#### Change in reporting currency

Our functional currency is the Canadian dollar. However, most of our competitors, and a large proportion of our investors, are based in the United States. To achieve greater comparability with our competitors' financial information and improve the understandability of our financial information for our U.S. investors, effective October 1, 2013, we are using United States dollars as our reporting currency. All assets and liabilities are translated using the exchange rate at the balance sheet date. Revenues, expenses and other income (losses) are translated using the average rate for the period, except for large transactions, which are translated at the exchange rate on the date of the transaction. As the translation differences from our functional currency of Canadian dollars to our reporting currency of U.S. dollars are unrealized gains and losses, the differences are recorded in other comprehensive loss, and do not impact the calculation of income or loss per share. All dollar amounts in this MD&A are U.S. dollars unless otherwise stated.

## OVERVIEW

Tekmira is a biopharmaceutical company focused on developing and advancing novel RNA interference therapeutics, as well as pursuing partnering opportunities for its leading lipid nanoparticle (LNP) delivery technology. RNAi has the potential to generate a broad new class of therapeutics that take advantage of the body's own natural processes to silence genes—or more specifically to eliminate specific gene-products, from the cell. With this ability to eliminate disease causing proteins from cells, RNAi products represent opportunities for therapeutic intervention that have not been achievable with conventional drugs. Delivery technology is crucial in order to protect RNAi drugs in the blood stream following administration, allow efficient delivery to the target cells, and facilitate cellular uptake and release into the cytoplasm of the cell. Tekmira's LNP technology represents the most widely adopted delivery technology in RNAi, enabling eight clinical trials and administered to well over 220 patients to date. Because LNP can enable a wide variety of nucleic acid payloads, including messenger RNA, we continue to see new product development and partnering opportunities based on our industry-leading delivery expertise.

### Our Product Candidates

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

#### **TKM-HBV**

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

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

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

#### **TKM-PLK1**

Our oncology product platform, TKM-PLK1, targets polo-like kinase 1 (PLK1), a protein involved in tumor cell proliferation and a validated oncology target. Inhibition of PLK1 expression prevents the tumor cell from completing cell division, resulting in cell cycle arrest and death of the cancer cell. Medical literature provides evidence that patients with elevated levels of PLK1 in their tumors exhibit poorer prognosis and survival rates.

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

Based on the encouraging results from the dose escalation portion and expansion cohort from our Phase I TKM-PLK1 clinical trial, we have expanded into a Phase I/II clinical trial with TKM-PLK1, which is specifically enrolling patients within two therapeutic indications: advanced GI-NET or ACC. This multi-center, single arm, open label study is designed to measure efficacy using RECIST criteria and tumor biomarkers for GI-NET patients, as well as to evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1. TKM-PLK1 will be administered weekly with each four-week cycle consisting of three once-weekly doses followed by a rest week. It is expected that approximately 20 patients with advanced GI-NET or ACC tumors will be enrolled in this trial, with a minimum of 10 GI-NET patients to be enrolled. We expect to report interim data from this trial in the second half of 2014. Thus far, we have been able to access response for four ACC patients. Three of these four have demonstrated a clinical benefit, including one RECIST qualifying partial response. This patient, with the partial response, has been on TKM-PLK1 for 12 months and has experienced a 42% reduction in their target tumor mass, located outside of the liver. Furthermore, this lesion is showing evidence of necrosis which is indicative of anti-tumor activity.

In the second quarter of 2014, we also expect to initiate another Phase I/II clinical trial with TKM-PLK1, enrolling patients with Hepatocellular Carcinoma (HCC). This clinical trial will be a multi-center, single arm, open label dose escalation study designed to evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1 as well as determine the maximum tolerated dose in HCC patients and measure the anti-tumor activity of TKM-PLK1 in HCC patients.

## **TKM-ALDH2**

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

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

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

## **TKM-Ebola and TKM-Marburg**

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

In July 2010, we signed a contract with the DoD under their JPM-MCS program to advance TKM-Ebola, providing us with approximately \$140.0 million in funding for the entire program. In May 2013 we announced that our collaboration with the JPM-MCS was modified and expanded to include advances in LNP formulation technology since the initiation of the program in 2010. The recent contract modification increases the stage one targeted funding from \$34.7 million to \$41.7 million. In April 2014, we signed a contract modification with the DoD to increase the stage one targeted funding by \$2.1 million to \$43.8 million to compensate us for unrecovered costs that occurred in 2012 and to provide additional funding should it be required.

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

In March 2014, we were granted a Fast Track designation from the U.S. Food and Drug Administration (FDA) for the development of TKM-Ebola. The FDA's Fast Track is a process designed to facilitate the development and expedite the review of drugs in order to get important new therapies to the patient earlier.

TKM-Ebola is being developed under specific FDA regulatory guidelines called the "Animal Rule." The Animal Rule provides that under certain circumstances, where it is unethical or not feasible to conduct human efficacy studies, the FDA may grant marketing approval based on adequate and well-controlled animal studies when the results of those studies establish that the drug is reasonably likely to produce clinical benefit in humans. Demonstration of the product's safety in humans is still required.

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

In April 2014, we presented preclinical data from a collaboration between Tekmira and UTMB showing 100% survival was achieved with TKM-Marburg when dosing at 0.5 mg/kg began 72 hours after infection with otherwise lethal quantities of the virus. Dosing then continued once daily for seven days. Earlier data from this collaborative research between Tekmira and UTMB showed 100% survival was achieved with TKM-Marburg when dosing at 0.5 mg/kg began either one hour, 24 hours, or 48 hours after infection with otherwise lethal quantities of the virus. These studies represent the first known demonstration of protection of non-human primates from Marburg-Angola, the most lethal strain of Marburg virus. In February 2014, UTMB and Tekmira, along with other collaborators, were awarded additional funding from the NIH in support of this research. Tekmira expects to continue to build on these data and pursue additional funding opportunities or development partnerships for TKM-Marburg.

### **Other Preclinical Candidates**

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

### **Advancements in LNP Technology**

We continue to develop our proprietary “gold standard” LNP delivery technology and receive clinical validation from LNP-based products currently in clinical trials. The most advanced LNP-enabled therapeutic, which is being developed by Alnylam Pharmaceuticals, Inc., has now entered Phase III clinical development. Ongoing advances in next-generation LNP technologies include increasing potency as well as expanding the therapeutic index. Our LNP technology remains an important cornerstone of our business development activities moving forward.

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

### **Technology, product development and licensing agreements**

In the field of RNAi therapeutics, we have licensed our LNP delivery technology to Alnylam and Merck & Co., Inc., and Alnylam has provided royalty bearing access to our LNP delivery technology to some of its partners. In addition, we have ongoing research relationships with Bristol-Myers Squibb Company, the United States National Cancer Institute, the DoD's JPM-MCS program, Monsanto, and other undisclosed pharmaceutical and biotechnology companies. Outside the field of RNAi, we have a legacy licensing agreement with Spectrum Pharmaceuticals Inc.

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

### **Strategic Alliances**

#### **Alnylam Pharmaceuticals, Inc. and Acuitas Therapeutics Inc.**

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

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

In April 2014, Alnylam presented positive new data from its Phase II clinical trial with patisiran (ALN-TTR02), an RNAi therapeutic targeting transthyretin (TTR) for the treatment of TTR-mediated amyloidosis (ATTR), which is enabled by our LNP technology. The program represents the most clinically advanced application of our proprietary LNP delivery technology. These results provide support for Alnylam's Phase III APOLLO trial where patisiran is being evaluated for its potential efficacy and safety in ATTR patients with Familial Amyloidotic Polyneuropathy (FAP).

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

In December 2013, we finalized and entered a cross-license agreement with Acuitas Therapeutics Inc. (formerly AlCana Technologies, Inc.). The terms of the cross-license agreement provide Acuitas with access to certain of Tekmira's earlier IP generated prior to April 2010 and provide us with certain access to Acuitas' technology and licenses in the RNAi field, along with a percentage of each milestone and royalty payment with respect to certain products, and Acuitas has agreed that it will not compete in the RNAi field for a period of 5 years.

#### **Spectrum Pharmaceuticals, Inc.**

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

#### **Monsanto Company**

In January 2014, we signed an Option Agreement and a Service Agreement with Monsanto, pursuant to which Monsanto has an option to obtain a license to use our proprietary delivery technology. Over the option period, which is expected to be approximately four years, we will provide lipid formulations for Monsanto's research and development activities, and Monsanto will make certain payments to the Company to maintain its option rights. Under the Service Agreement, we will make payments to Monsanto for research services over the option period, up to a maximum of \$5.0 million. The transaction supports the application of our proprietary delivery technology and related IP for use in agriculture. The potential value of the transaction could reach up to \$86.2 million following the successful completion of milestones. In January 2014, we received \$14.5 million of the net \$16.5 million in anticipated near term payments.

#### **Marina Biotech, Inc. / Arcturus Therapeutics, Inc.**

On November 29, 2012, we disclosed that we had obtained a worldwide, non-exclusive license to a novel RNAi trigger technology called Unlocked Nucleobase Analog (UNA) from Marina for the development of RNAi therapeutics. UNAs can be incorporated into RNAi drugs and have the potential to improve them by increasing their stability and reducing off-target effects. In August 2013, Marina assigned its UNA technology to Arcturus Therapeutics, Inc., and the UNA license agreement between Tekmira and Marina was assigned to Arcturus. The terms of the license are otherwise unchanged.

To date we have paid Marina \$0.5 million in license fees and there are milestones of up to \$3.2 million plus royalties for each product that we develop using UNA technology.

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

As a result of the business combination with Protiva in 2008, we acquired a non-exclusive royalty-bearing world-wide license agreement with Merck. Under the license, Merck will pay up to \$17.0 million in milestones for each product they develop covered by Protiva's intellectual property, except for the first product for which Merck will pay up to \$15.0 million in milestones, and will pay royalties on product sales. Merck's license rights are limited to patents that we filed, or that claim priority to a patent that was filed, before October 9, 2008. Merck does not have rights to our patents filed after October 9, 2008 unless they claim priority to a patent filed before that date. Merck has also granted a license to the Company to certain of its patents. On January 12, 2014, Alnylam announced that they will be acquiring certain assets from Merck, which may include the license agreement, in which case it will transfer to Alnylam.

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

In May 2010 we announced the expansion of our ongoing research collaboration with BMS. Under the new agreement, BMS will use RNAi triggers molecules formulated by us in LNPs to silence target genes of interest. BMS will conduct the preclinical work to validate the function of certain genes and share the data with us. We can use the preclinical data to develop RNAi therapeutic drugs against the therapeutic targets of interest. BMS paid us \$3.0 million concurrent with the signing of the agreement. We are required to provide a predetermined number of LNP batches over the four-year agreement. BMS will have a first right to negotiate a licensing agreement on certain RNAi products developed by us that evolve from BMS validated gene targets. In May 2011, we announced a further expansion of the collaboration to include broader applications of our LNP technology and additional target validation work. In December 2013, we decided to extend the BMS batch formulation agreement end date from May 2014 to December 2014. Extending the agreement will give BMS more time to order LNP batches. There will not be any monetary consideration for extending the agreement. Recognition of revenue from agreements with BMS is covered in the Revenue section of this MD&A.

## **U.S. National Institutes of Health (NIH)**

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

## **CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

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

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

There are no other changes to our critical accounting policies and estimates from those disclosed in our annual MD&A contained in our 2013 Annual Report filed on Form 10-K.

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

In March 2014, the FASB issued ASU 2014-06, Technical Corrections and Improvements Related to Glossary Terms (Update). The update contains amendments that affect a wide variety of Topics in the Codification, and represent changes to clarify the Master Glossary of the Codification. The update does not have transition guidance and is effective upon issuance. The adoption of this guidance did not have an impact on our consolidated financial statements.

## **SUMMARY OF QUARTERLY RESULTS**

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

(in thousands \$ except per share data) – unaudited

	Q1 2014	Q4 2013	Q3 2013	Q2 2013	Q1 2013	Q4 2012	Q3 2012	Q2 2012
<b>Revenue</b>								
Collaborations and contracts:								
DoD	\$ 3,240	\$ 2,620	\$ 2,833	\$ 2,453	\$ 1,900	\$ 3,622	\$ 1,881	\$ 2,469
Monsanto	243	—	—	—	—	—	—	—
Other	206	(131)	128	391	232	185	187	174
	<u>3,689</u>	<u>2,489</u>	<u>2,961</u>	<u>2,844</u>	<u>2,132</u>	<u>3,807</u>	<u>2,068</u>	<u>2,643</u>
Monsanto licensing fees and milestone payments								
payments	545	—	—	—	—	—	—	—
Alnylam milestone payments	—	5,000	—	—	—	—	—	1,000
Acuitas milestone payments	150	—	—	—	—	—	—	—
Spectrum milestone and royalty payments	46	40	2	—	—	—	1,000	—
<b>Total revenue</b>	<b>4,430</b>	<b>7,527</b>	<b>2,963</b>	<b>2,844</b>	<b>2,132</b>	<b>3,807</b>	<b>3,068</b>	<b>3,643</b>
Expenses	(10,388)	(9,962)	(6,615)	(5,915)	(5,126)	(9,816)	(4,824)	(6,206)
Other income (losses)	(12,026)	(162)	(2,254)	56	448	44,195	(1,702)	627
<b>Net (loss) income</b>	<b>(17,984)</b>	<b>(2,597)</b>	<b>(5,906)</b>	<b>(3,015)</b>	<b>(2,546)</b>	<b>38,186</b>	<b>(3,458)</b>	<b>(1,936)</b>
<b>Basic net (loss) income per share</b>	<b>\$ (0.91)</b>	<b>\$ (0.15)</b>	<b>\$ (0.41)</b>	<b>\$ (0.21)</b>	<b>\$ (0.17)</b>	<b>\$ 2.72</b>	<b>\$ (0.25)</b>	<b>\$ (0.14)</b>
<b>Diluted net (loss) income per share</b>	<b>\$ (0.91)</b>	<b>\$ (0.15)</b>	<b>\$ (0.41)</b>	<b>\$ (0.21)</b>	<b>\$ (0.17)</b>	<b>\$ 2.51</b>	<b>\$ (0.25)</b>	<b>\$ (0.14)</b>

### Quarterly Trends

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

In Q3 2010, we signed a contract with the DoD to develop TKM-Ebola and have since incurred significant program costs related to equipment, materials and preclinical and clinical studies. These costs are included in our research, development, collaborations and contracts expenses. These costs are fully reimbursed by the DoD, and this reimbursement amount is recorded as revenue. DoD revenue from the TKM-Ebola program also compensates us for labor and overhead and provides an incentive fee. In Q3 2012, the DoD issued a temporary stop-work order, which was subsequently lifted in Q4 2012 and the contract resumed. Revenue in Q4 2012 was unusually high due to an increase in our overhead rates. As described in our critical accounting policies, we estimate the labor and overhead rates to be charged under our TKM-Ebola contract and update these rate estimates throughout the year. In Q4 2012, we incurred unforecasted expenses which led to an increase in our TKM-Ebola contract overhead rates and, therefore, an increase in our revenue under the contract. Q1 2013 DoD revenue was lower as certain activities were still building momentum following the stop-work order. TKM-Ebola contract revenue increased in Q2, Q3 and Q4 2013 as technology transfer, manufacturing and non-clinical studies were all ongoing. On April 22, 2014, we signed a contract modification to increase the phase one targeted funding by \$2.1 million to \$43.8 million. The additional funding is to compensate the Company for unrecovered costs related to the temporary stop-work period that occurred in 2012 and to provide additional overhead funding should it be required.

In Q1 2014, we earned \$3.2 million in DoD revenue, due partially to an increase in activity as we move into Phase I Clinical Trial and animal testing. Also, as a result of the contract modification, we now expect to complete the initial phase of the contract close to budget which increases our estimate of total incentive fee to be earned under the contract and the amount we have earned to date.

In Q2 2012, we earned a \$1.0 million milestone from Alnylam following their initiation of a Phase II human clinical trial enabled by our LNP delivery technology. In Q4 2013 we earned a \$5.0 million milestone from Alnylam following their initiation of a Phase III trial enabled by our LNP technology.

In Q3 2012 we earned a \$1.0 million milestone from Spectrum when they received accelerated approval for Marqibo from the U.S. Food and Drug Administration (FDA). In Q4 2013, we earned our first meaningful royalty payment from Spectrum, \$0.04 million, as they shipped commercial orders of Marqibo.

In Q4 2013, we decided to extend the BMS batch formulation agreement end date from May 2014 to December 2014. Extending the agreement will give BMS more time to order LNP batches. There will not be any monetary consideration for extending the agreement. Revenue recognized in 2013 has been reduced and the balance of deferred revenue as at December 31, 2013 has been increased to account for BMS, potentially, ordering more batches under the agreement. This adjustment is reflected in the \$0.1 million of negative "other revenue" in Q4 2013 when the decision was made to extend the agreement and a cumulative revenue adjustment was recorded.

In Q1 2014, we signed an Option Agreement and a Services Agreement with Monsanto for the use of our proprietary delivery technology and related intellectual property in agriculture. Over the option period, which is expected to be approximately four years, Monsanto will make payments to us to maintain their option rights. In Q1 2014, we received \$14.5 million of the \$16.5 million near term payments related to research services and the use of our technology and are recognized on a straight-line basis over the option period. We have recognized an aggregate of \$0.8 million in revenue for the period.

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

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

In Q4 2013 and Q1 2014, our expenses increased due to an increase in our research and development activities as we seek to move more products into the clinic.

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

Other losses in Q1 2014 consist primarily of a \$13.6 million increase in the fair value of warrant liability due to the significant increase in our share price.

**Net (loss) income** / The increase in loss in Q3 2012, Q3 2013, and Q1 2014 is largely due to increases in the fair value of our warrant liability which is caused by increases in our share price over the previous quarter ends. The net income in Q4 2012 is largely due to the litigation settlement payments received from Alnylam, and the decrease in loss in Q4 2013 is largely due to the milestone payment we received from Alnylam.

## RESULTS OF OPERATIONS

The following summarizes the results of our operations for the periods shown, in thousands:

	Three months ended March 31,	
	2014	2013
Total revenue	\$ 4,430	\$ 2,132
Operating expenses	10,388	5,126
Loss from operations	(5,958)	(2,994)
Net loss	(17,984)	(2,546)
Basic and diluted loss per share	(0.91)	(0.18)

**Revenue** / Revenue is summarized in the following table, in thousands:

	Three months ended March 31,			
	2014	% of Total	2013	% of Total
DoD	\$ 3,240	73%	\$ 1,900	89%
Monsanto	243	5%	-	0%
BMS	206	5%	232	11%
<b>Total collaborations and contracts revenue</b>	<b>3,689</b>	<b>83%</b>	<b>2,132</b>	<b>100%</b>
Monsanto licensing fee and milestone payments	545	12%	-	0%
Acuitas milestone payment	150	3%	-	0%
Spectrum milestone and royalty payments	46	1%	-	0%
<b>Total revenue</b>	<b>\$ 4,430</b>		<b>\$ 2,132</b>	

### ***DoD revenue***

On July 14, 2010, we signed a contract with the United States Government Department of Defense (“DoD”) to advance an RNAi therapeutic utilizing our LNP technology to treat Ebola virus infection (see Overview for further discussion). The initial phase of the contract, which is funded under a Transformational Medical Technologies program, was budgeted at \$34.7 million. This stage one funding is for the development of TKM-Ebola including completion of preclinical development, filing an IND application with the FDA and completing a Phase 1 human safety clinical trial.

In November 2012, we submitted a modification request to the existing contract to the U.S. Government in order to integrate recent advancements in LNP formulation and manufacturing technology in the TKM-Ebola development program. The modification was approved and increased the stage one targeted funding from \$34.8 million to \$41.7 million. In April 2014, we signed a contract modification with the DoD to increase the stage one targeted funding by a further \$2.1 million to \$43.8 million. The additional funding is to compensate us for unrecovered costs incurred in 2012 and to provide additional funding should it be required.

Under the contract, we are being reimbursed for costs incurred, including an allocation of overheads, and we are being paid an incentive fee. DoD revenues and related contract expenses were higher in Q1 2014, as compared to Q1 2013, due to an increase in activity as we move into Phase I clinical trials and continue with our animal studies.

### ***Monsanto revenue***

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

In January 2014, we received \$14.5 million and will recognize this revenue on a straight-line basis over the option period, which is expected to be four years. In Q1 2014, we recorded an aggregate of \$0.8 million in revenue for the use of our technology and for research activities.

### ***Alnylam revenue***

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

In Q1 2014, we recognized \$0.15 million in milestone revenue from Acuitas following their receipt of a milestone from Alnylam with the initiation of a Phase III trial enabled by our LNP technology.

### ***BMS revenue***

In May 2010 we signed a formulation agreement with BMS under which BMS paid us \$3.0 million to make a certain number of LNP formulations over the following four year period. At the end of 2013, we decided to extend the agreement’s end date from May 10, 2014 to December 31, 2014. Extending the agreement will give BMS more time to order LNP batches. We did not receive any monetary consideration for extending the agreement.

### ***Spectrum revenue***

Sales of Marqibo, which uses a license to our technology, began in September 2013. In Q1 2014, we recorded \$0.05 million in Marqibo royalty revenue.

**Expenses** / Expenses are summarized in the following table, in thousands:

	<b>Three months ended March 31,</b>			
	<b>2014</b>	<b>% of Total</b>	2013	% of Total
Research, development, collaborations and contracts	\$ 8,204	79%	\$ 4,067	79%
General and administrative	2,050	20%	893	17%
Depreciation	134	1%	166	3%
<b>Total operating expenses</b>	<b>\$ 10,388</b>		<b>\$ 5,126</b>	

***Research, development, collaborations and contracts***

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

In the first quarter of 2014, we increased our spending on our newer product candidates, TKM-HBV and TKM-ALDH2 – see Overview. In Q1 2014, we incurred incremental costs for our TKM-Ebola program. In addition, we increased research activities related to our collaboration with Monsanto in the agricultural field.

R&D compensation expense increased in Q1 2014 as compared to Q1 2013 due to an increase in the number of both employees and contractors in support of our expanded portfolio of product candidates.

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

## General and administrative

General and administrative expenses were higher in Q1 2014 compared to Q1 2013 due largely to an increase in compensation expense linked to our increase in employee base.

## Depreciation of property and equipment

Most of our recent property and equipment additions were related to our TKM-Ebola program and are not recorded as Company assets. As such, a large portion of our property and equipment is reaching full amortization. In Q1 2014, we spent \$0.3 million on property and equipment mostly related to lab equipment and information technology improvements.

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

	<b>Three months ended March 31,</b>	
	<b>2014</b>	<b>2013</b>
Interest income	\$ 147	\$ 145
Foreign exchange gains (losses)	1,443	(5)
(Increase) decrease in fair value of warrant liability	(13,616)	308
<b>Total other income (losses)</b>	<b>\$ (12,026)</b>	<b>\$ 448</b>

## Foreign exchange gains

In Q1 2014, we recorded foreign exchange gains of \$1.4 million related to an appreciation in the value of our U.S. dollar funds when converted to our functional currency of Canadian dollars. Cumulative translation adjustments, which results from converting from our functional currency of Canadian dollars to our reporting currency of U.S. dollars, do not impact our net loss calculation and are not included in foreign exchange gains (losses) – see change in reporting currency discussion above.

## Increase in fair value of warrant liability

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

The increase in value of our common share purchase warrants outstanding at March 31, 2014 was \$13.6 million as compared to a decrease in the value of common share purchase warrants outstanding at the end of March 31, 2013 of \$0.3 million. The increase was a result of an increase in the Company's share price from the previous reporting dates.

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

## LIQUIDITY AND CAPITAL RESOURCES

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

	<b>Three months ended March 31</b>	
	<b>2014</b>	<b>2013</b>
Net income (loss) for the period	(17,984)	(2,546)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities	14,879	(5)
Changes in operating assets and liabilities	12,260	(289)
Net cash provided by (used in) operating activities	9,155	(2,840)
Net cash used in investing activities	(335)	(201)
Net cash provided by financing activities	59,289	138
Effect of foreign exchange rate changes on cash & cash equivalents	(2,469)	(999)
Net increase (decrease) in cash and cash equivalents	65,640	(3,902)
Cash and cash equivalents, beginning of period	68,717	47,024
<b>Cash and cash equivalents, end of period</b>	<b>134,357</b>	<b>43,122</b>

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 March 31, 2014, we had cash and cash equivalents of approximately \$134.4 million as compared to \$68.7 million at December 31, 2013.

Operating activities provided \$9.2 million in cash in Q1 2014 as compared to \$2.7 million of cash used in Q1 2013. The increase in cash from operating activities is primarily related to cash received from Monsanto in January 2014.

On March 18, 2014, we completed an underwritten public offering of 2,125,000 common shares, at a price of \$28.50 per share, representing gross proceeds of \$60.6 million. The cost of financing, including commissions and professional fees, was \$4.1 million, which gave us net proceeds of \$56.5 million. In Q1 2014, we also received \$2.8 million in finance funding from the exercise of warrants and options. We plan to use these proceeds to develop and advance product candidates through clinical trials, as well as for working capital and general corporate purposes.

**Cash requirements** / At December 31, 2013 we held \$68.7 million in cash and cash equivalents. On March 18, 2014, we raised net proceeds of \$56.5 million from a public offering. Our cash balance as at March 31, 2014 was \$134.4 million. We believe we have sufficient cash resources for at least the next 12 months. In the future, substantial additional funds will be required to continue with the active development of our pipeline products and technologies. In particular, our funding needs may vary depending on a number of factors including:

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

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

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

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

#### **OFF-BALANCE SHEET ARRANGEMENTS**

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

## **CONTRACTUAL OBLIGATIONS**

Other than as disclosed elsewhere in this MD&A, there have not been any material changes to our contractual obligations from those disclosed in our Form 10-K for the year ended December 31, 2013.

## **IMPACT OF INFLATION**

Inflation has not had a material impact on our operations.

## **RELATED PARTY TRANSACTIONS**

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

## **OUTSTANDING SHARE DATA**

At May 8, 2014, we had 22,076,852 common shares issued and outstanding, outstanding options to purchase an additional 1,844,800 common shares and outstanding warrants to purchase an additional 634,750 common shares.

On May 8, 2014, at our Annual General and Special Meeting of Shareholders, our shareholders voted to authorize an amendment of our omnibus share compensation plan to increase, by 800,000 common shares, the number of common shares in respect of which awards may be granted thereunder.

## **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

There have been no material changes in our quantitative and qualitative disclosures about market risk from those disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013.

## **ITEM 4. CONTROLS AND PROCEDURES**

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

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

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended March 31, 2014 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

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

#### **Alnylam Pharmaceuticals Inc. (“Alnylam”)**

On June 21, 2013, we transferred manufacturing process technology to Asclepis Pharmaceuticals (Hangzhou) Co., Ltd. (“Asclepis”) to enable them to produce ALN-VSP, a product candidate licensed to them by Alnylam. We believe that under a licensing agreement with Alnylam, the technology transfer to Asclepis triggers a \$5,000,000 milestone obligation from Alnylam to the Company. However, Alnylam has demanded a declaration that we have not yet met our milestone obligations. We dispute Alnylam’s position. To remedy this dispute, we have commenced arbitration proceedings with Alnylam, as provided for under the agreement.

### ITEM 1A. RISK FACTORS

There have been no material changes in our risk factors from those disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013.

### ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.

None.

### ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

### ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

### ITEM 5. OTHER INFORMATION

None.

### ITEM 6. EXHIBITS

- |      |   |
|------|---|
| 10.1 | Amended Tekmira 2011 Omnibus Share Compensation Plan, as amended on May 8, 2014   |
| 31.1 | Certification of Chief Executive Officer pursuant to Rule 13a-14 or 15d-14 of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 |
| 31.2 | Certification of Chief Financial Officer pursuant to Rule 13a-14 or 15d-14 of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 |
| 32.1 | Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.                                      |
| 32.2 | Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.                                      |
| 101  | Interactive Data Files  |

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on May 14, 2014.

**TEKMIRA PHARMACEUTICALS CORPORATION**

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



---

# **TEKMIRA 2011 OMNIBUS SHARE COMPENSATION PLAN**

**(as approved by the board of directors on May 10, 2011 and  
approved by the shareholders at the June 22, 2011 Annual and Special General Meeting;  
as amended and approved by the board of directors on May 15, 2012 and  
approved by the shareholders at the June 20, 2012 Annual and Special General Meeting;  
as amended and approved by the board of directors on March 26, 2014 and  
approved by the shareholders at the May 8, 2014 Annual and Special General Meeting)**

---

---

# TEKMIRA PHARMACEUTICALS CORPORATION

## TEKMIRA PHARMACEUTICALS CORPORATION 2011 OMNIBUS SHARE COMPENSATION PLAN

(as approved by the board of directors on May 10, 2011 and approved by the shareholders at the June 22, 2011 Annual and Special General Meeting as amended and approved by the board of directors on May 15, 2012 and approved by the shareholders at the June 20, 2012 Annual and Special General Meeting; as amended and approved by the board of directors on March 26, 2014 and approved by the shareholders at the May 8, 2014 Annual and Special General Meeting)

### 1. PURPOSE OF THE PLAN

**1.1 Purpose of this Plan.** The purpose of this Plan is to promote the interests of the Corporation by:

- (a) furnishing certain directors, officers, employees or consultants of the Corporation or an Affiliate or other persons as the Compensation Committee may approve with greater incentive to further develop and promote the business and financial success of the Corporation;
- (b) furthering the identity of interests of persons to whom equity-based incentive awards may be granted with those of the shareholders of the Corporation generally through share ownership in the Corporation; and
- (c) assisting the Corporation in attracting, retaining and motivating its directors, officers, employees and consultants.

The Corporation believes that these purposes may best be effected by granting equity-based incentive awards to Eligible Participants.

### 2. DEFINITIONS

**2.1 Definitions.** In this Plan, unless there is something in the subject matter or context inconsistent therewith, capitalized words and terms will have the following meanings:

- (a) "**Affiliate**" means an affiliate company as defined in the Securities Act;
  - (b) "**Associate**" means an associate as defined in the Securities Act;
  - (c) "**Award**" means an award of Deferred Stock Units, Options, Restricted Stock Units, or Tandem SARs;
  - (d) "**Award Agreement**" means an agreement evidencing a Deferred Stock Unit, Option, Restricted Stock Unit or Tandem SAR, entered into by and between the Corporation and an Eligible Person;
-

(e) "**Blackout Period**" means an interval of time during which trading in securities of the Corporation by officers, directors and employees of the Corporation is prohibited pursuant to the Corporation's Insider Trading Policy;

(f) "**Board of Directors**" means the board of directors of the Corporation as constituted from time to time;

(g) "**Change in Control**" means:

(i) any merger or consolidation in which voting securities of the Corporation possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities are transferred to a person or persons different from the persons holding those securities immediately prior to such transaction and the composition of the Board of Directors following such transaction is such that the directors of the Corporation prior to the transaction constitute less than fifty percent (50%) of the Board of Directors membership following the transaction;

(ii) any acquisition, directly or indirectly, by a person or related group of persons (other than the Corporation or a person that directly or indirectly controls, is controlled by, or is under common control with, the Corporation) of beneficial ownership of voting securities of the Corporation possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities;

(iii) any acquisition, directly or indirectly, by a person or related group of persons of the right to appoint a majority of the directors of the Corporation or otherwise directly or indirectly control the management, affairs and business of the Corporation;

(iv) any sale, transfer or other disposition of all or substantially all of the assets of the Corporation; and

(v) a complete liquidation or dissolution of the Corporation;

provided however, that a Change in Control shall not be deemed to have occurred if such Change in Control results solely from the issuance, in connection with a *bona fide* financing or series of financings by the Corporation or any of its Affiliates, of voting securities of the Corporation or any of its Affiliates or any rights to acquire voting securities of the Corporation or any of its Affiliates which are convertible into voting securities;

(h) "**Common Shares**" means the common shares in the capital of the Corporation as constituted on the Effective Date, provided that if the rights of any Participant are subsequently adjusted pursuant to Article 20 hereof, "Common Shares" thereafter means the shares or other securities or property which such Participant is entitled to purchase after giving effect to such adjustment;

- (i) "**Compensation Committee**" has the meaning ascribed thereto in Section 5.1 of this Plan;
- (j) "**Consultant**" means any individual, corporation or other person engaged to provide ongoing valuable services to the Corporation or an Affiliate;
- (k) "**Corporation**" means Tekmira Pharmaceuticals Corporation and includes any successor corporation thereto;
- (l) "**Deferred Stock Unit**" means a right granted to an Eligible Person in accordance with Section 11 to receive, on a deferred payment basis, a cash payment or Common Shares, or any combination thereof, as determined by the Compensation Committee and on the terms contained in this Plan;
- (m) "**Effective Date**" has the meaning ascribed thereto by Section 3.1 of this Plan;
- (n) "**Eligible Person**" means a director, officer, employee or Consultant of the Corporation or an Affiliate or a person otherwise approved by the Compensation Committee;
- (o) "**Exercise Price**" means the price per Common Share at which a Participant may purchase Common Shares pursuant to an Option, provided that if such price is adjusted pursuant to Section 20.1 hereof, "Exercise Price" thereafter means the price per Common Share at which such Participant may purchase Common Shares pursuant to such Option after giving effect to such adjustment;
- (p) "**Fair Market Value**" as it relates to Common Shares means:
  - (i) where the Common Shares are listed for trading on a Stock Exchange, the closing price of the Common Shares on such Stock Exchange as determined by the Compensation Committee, for the Trading Session on the day prior to the relevant time as it relates to an Award; or
  - (ii) where the Common Shares are not publicly traded, the value which is determined by the Compensation Committee to be the fair value of the Common Shares at the relevant time as it relates to an Award, taking into consideration all factors that the Compensation Committee deems appropriate, including, without limitation, recent sale and offer prices of the Common Shares in private transactions negotiated at arm's length;
- (q) "**Insider**" means:
  - (i) an insider as defined in the Securities Act; and
  - (ii) an Associate or Affiliate of any person who is an insider;

- (r) "**Key Employee**" means an employee of the Corporation who at any time during the calendar year is an officer of the Corporation whose annual compensation is equal to or greater than US\$130,000, an employee whose share ownership in the Corporation is 5% or more, or an employee whose share ownership in the Corporation is 1% or more and whose annual compensation exceeds US\$150,000, or as U.S. federal tax law is amended in this regard from time to time;
- (s) "**Legal Representative**" has the meaning ascribed thereto by Section 14.1 of this Plan;
- (t) "**Merger and Acquisition Transaction**" means:
- (i) any merger;
  - (ii) any acquisition;
  - (iii) any amalgamation;
  - (iv) any offer for shares of the Corporation which if successful would entitle the offeror to acquire all of the voting securities of the Corporation; or
  - (v) any arrangement or other scheme of reorganization;
- that results in a Change in Control;
- (u) "**Non Blackout Trading Day**" means a day on which (i) a Trading Session occurs, and (ii) no Blackout Period is in place;
- (v) "**Notice of Settlement**" means a notice delivered to the Corporation in the form prescribed by the Corporation from time to time, or in absence of such form, a written notice indicating the Participant's desire to receive his or her Settlement Amount and delivered to the Corporation;
- (w) "**Options**" means stock options granted hereunder to purchase Common Shares from treasury pursuant to the terms and conditions hereof and as evidenced by an Option Agreement and "Option" means any one of them;
- (x) "**Option Agreement**" means an agreement evidencing an Option, entered into by and between the Corporation and an Eligible Person;
- (y) "**Outstanding Common Shares**" at the time of any share issuance or grant of Options means the number of Common Shares that are outstanding immediately prior to the share issuance or grant of Options in question, on a non-diluted basis, or such other number as may be determined under the applicable rules and regulations of all regulatory authorities to which the Corporation is subject, including the Stock Exchange;
- (z) "**Participant**" means a person to whom an Award has been granted under this Plan;

- (aa) "**Plan**" means the Tekmira 2011 Omnibus Share Compensation Plan, as the same may from time to time be supplemented or amended and in effect;
- (bb) "**Restricted Stock Unit**" means a right granted to an Eligible Person in accordance with Section 10 to receive a cash payment or Common Shares, or a combination thereof, as determined by the Compensation Committee, equal in value to the Fair Market Value of the Common Shares on an applicable future settlement date as specified by the Compensation Committee, on the terms and conditions and calculated in accordance with Section 10 hereof;
- (cc) "**Settlement Amount**" means an amount paid to the holder of Deferred Stock Units as determined pursuant to Section 11;
- (dd) "**Securities Act**" means the *Securities Act*, R.S.B.C. 1996, c.418, as amended from time to time;
- (ee) "**Stock Exchange**" means such stock exchange or other organized market on which the Common Shares are listed or posted for trading;
- (ff) "**Tandem SAR**" means a right, granted in accordance with Section 9 in tandem with an Option, to receive upon the exercise thereof payment in cash, Common Shares or any combination thereof, as determined by the Compensation Committee, an amount equal to the excess of the Fair Market Value of the Common Shares on the date of exercise of such Tandem SAR over the Option Exercise Price, on the terms and conditions and calculated in accordance with Section 9 hereof;
- (gg) "**Terminated Service**" means that a Participant has, except as a result of death or disability, ceased to be a director, officer, employee or Consultant of the Corporation, as the case may be;
- (hh) "**Trading Session**" means a trading session on a day which the applicable Stock Exchange is open for trading;
- (ii) "**U.S. Exchange Act**" means the U.S. Securities Exchange Act of 1934, as amended from time to time;
- (jj) "**U.S. Internal Revenue Code**" means the Internal Revenue Code of 1986 of the United States, as amended from time to time;
- (kk) "**U.S. Nonqualified Stock Option**" means an Option to purchase Common Shares other than a U.S. Qualified Incentive Stock Option;
- (ll) "**U.S. Optionee**" or "**U.S. Person**" means a Participant who is a citizen or a resident of the United States (including its territories, possessions and all areas subject to the jurisdiction); and

(mm) **"U.S. Qualified Incentive Stock Option"** means an Option to purchase Common Shares with the intention that it qualify as an "incentive stock option" as that term is defined in Section 422 of the U.S. Internal Revenue Code, such intention being evidenced by the resolutions of the Compensation Committee at the time of grant.

### 3. **EFFECTIVE DATE OF PLAN**

**3.1 Effective Date of this Plan.** The effective date (the "Effective Date") of this Plan is June 22, 2011, the date on which this Plan was adopted by the shareholders of the Corporation.

### 4. **COMMON SHARES SUBJECT TO PLAN**

**4.1 Common Shares Subject to this Plan.** The aggregate number of Common Shares in respect of which Awards may be granted pursuant to this Plan shall not exceed 2,993,870. The number of Common Shares in respect of which Awards may be granted pursuant to this Plan may be increased, decreased or fixed by the Board of Directors, as permitted under the applicable rules and regulations of all regulatory authorities to which the Corporation is subject, including the Stock Exchange.

**4.2 Computation of Available Shares.** For the purposes of computing the number of Common Shares available for grant under this Plan, Common Shares subject to any Award (or any portion thereof) that have expired or are forfeited, surrendered, cancelled or otherwise terminated prior to the issuance or transfer of such Common Shares and Common Shares subject to an Award (or any portion thereof) that is settled in cash in lieu of settlement in Common Shares shall again be available for grant under this Plan. Notwithstanding the foregoing, any Common Shares subject to an Award that are withheld or otherwise not issued (upon either an exercise of any Option or Tandem SAR or any settlement of any Award) in order to satisfy the Participant's withholding obligations or in payment of any Option Exercise Price shall reduce the number of Common Shares available for grant under the limitations set forth in this Article 4.

**4.3 Reservation of Shares.** The Board of Directors will reserve for allotment from time to time out of the authorized but unissued Common Shares sufficient Common Shares to provide for issuance of all Common Shares which are issuable under all outstanding Awards.

**4.4 No Fractional Shares.** No fractional Common Shares may be purchased or issued under this Plan.

**4.5 Settlement of Awards.** Subject to the terms and limitations of the Plan, payments or transfers to be made upon the exercise settlement of an Award, other than an Option, may be made in such form or forms as the Compensation Committee shall determine (including, without limitation, cash or Common Shares), and payment or transfers made in whole or in part in Common Shares may, in the discretion of the Compensation Committee, be issued from treasury or purchased in the open market.

## 5. ADMINISTRATION OF PLAN

**5.1 Administration of Plan.** The Board of Directors may at any time appoint a committee (the “Compensation Committee”) to, among other things, interpret, administer and implement this Plan on behalf of the Board of Directors in accordance with such terms and conditions as the Board of Directors may prescribe, consistent with this Plan (provided that if at any such time such a committee has not been appointed by the Board of Directors, this Plan will be administered by the Board of Directors, and in such event references herein to the Compensation Committee shall be construed to be a reference to the Board of Directors). The Board of Directors will take such steps which in its opinion are required to ensure that the Compensation Committee has the necessary authority to fulfil its functions under this Plan.

**5.2 Award Agreements.** Each Award will be evidenced by an Award Agreement which incorporates such terms and conditions as the Compensation Committee in its discretion deems appropriate and consistent with the provisions of this Plan (and the execution and delivery by the Corporation of an Award Agreement with a Participant shall be conclusive evidence that such Award Agreement incorporates terms and conditions approved by the Compensation Committee and is consistent with the provisions of this Plan). Each Award Agreement will be executed by the Participant to whom the Award is granted and on behalf of the Corporation by any member of the Compensation Committee or any officer of the Corporation or such other person as the Compensation Committee may designate for such purpose.

**5.3 Powers of Compensation Committee.** The Compensation Committee is authorized, subject to the provisions of this Plan, to establish from time to time such rules and regulations, make such determinations and to take such steps in connection with this Plan as in the opinion of the Compensation Committee are necessary or desirable for the proper administration of this Plan. For greater certainty, without limiting the generality of the foregoing, the Compensation Committee will have the power, where consistent with the general purpose and intent of this Plan and subject to the specific provisions of this Plan and any approval of the Stock Exchange, if applicable:

- (a) to interpret and construe this Plan and any Award Agreement and to determine all questions arising out of this Plan and any Award Agreement, and any such interpretation, construction or determination made by the Compensation Committee will be final, binding and conclusive for all purposes;
- (b) to determine to which Eligible Persons Awards are granted, and to grant, Awards;
- (c) to determine the number of Common Shares issuable pursuant to each Award;
- (d) to determine the Exercise Price for each Option;
- (e) to determine the time or times when Awards will be granted, vest and be exercisable, as applicable;
- (f) to determine the vesting terms of Awards, which may be based upon the passage of time, continued employment or service, on the basis of corporate or personal performance objectives, or any combination of the foregoing as determined by the Compensation Committee;

- (g) to determine any acceleration of vesting;
- (h) to determine if the Common Shares that are subject to an Award will be subject to any restrictions or repurchase rights upon the exercise or settlement of such Award including, where applicable, the endorsement of a legend on any certificate representing Common Shares acquired on the exercise or settlement of any Award to the effect that such Common Shares may not be offered, sold or delivered except in compliance with the applicable securities laws and regulations of Canada, the United States or any other country and if any rights or restrictions exist they will be described in the applicable Award Agreement;
- (i) to determine the expiration date for each Award and to extend the period of time for which any Award is to remain exercisable or may be settled in appropriate circumstances, including, without limitation, in the event of the Participant's cessation of employment or service, provided that such date may not be later than the earlier of (A) the latest date permitted under the applicable rules and regulations of all regulatory authorities to which the Corporation is subject, including the Stock Exchange, and (B) in the case of an Option and, if applicable, Tandem SAR, the date which is the tenth anniversary of the date on which such Option and, if applicable, Tandem SAR is granted;
- (j) to prescribe the form of the instruments relating to the grant, exercise, or settlement, as applicable, and other terms of Awards;
- (k) to enter into an Award Agreement evidencing each Award which will incorporate such terms as the Compensation Committee in its discretion deems consistent with this Plan;
- (l) to take such steps and require such documentation from Eligible Persons which in its opinion are necessary or desirable to ensure compliance with the rules and regulations of the Stock Exchange and all applicable laws;
- (m) to adopt such modifications, procedures and subplans as may be necessary or desirable to comply with the provisions of the laws of Canada, the United States and other countries in which the Corporation or its Affiliates may operate to ensure the viability and maximization of the benefits from the Awards granted to Participants residing in such countries and to meet the objectives of this Plan; and
- (n) to determine such other matters as provided for herein.

## **6. GRANT OF OPTIONS**

Subject to the rules set out below, the Compensation Committee or the Board of Directors (or in the case of any proposed Participant who is a member of the Compensation Committee, the Board of Directors) may from time to time grant to any Eligible Person one or more Options as the Compensation Committee or the Board of Directors deems appropriate.

**6.1 Date Option Granted.** The date on which an Option will be deemed to have been granted under this Plan will be the date on which the Compensation Committee or the Board of Directors, as applicable, authorizes the grant of such Option or such other date as may be specified by the Compensation Committee or the Board of Directors, as applicable, at the time of such authorization.

**6.2 Number of Common Shares/Maximum Grant.** The number of Common Shares that may be purchased under any Option will be determined by the Compensation Committee, provided that:

(a) the number of Common Shares reserved for issuance to any one Participant pursuant to this Plan within any one year period shall not, in aggregate, exceed 5% of the total number of Outstanding Common Shares on a non-diluted basis; and

(b) the number of Common Shares:

(i) issuable, at any time, to Participants that are Insiders; and

(ii) issued to Participants that are Insiders within any one year period;

pursuant to this Plan, or when combined with all of the Corporation's other security based share compensation arrangements shall not, in aggregate, exceed 10% of the total number of Outstanding Common Shares on a non-diluted basis;

For the purposes of this Section 6.2, Common Shares issued pursuant to an entitlement granted prior to the grantee becoming an Insider may be excluded in determining the number of Common Shares issuable to Insiders. A Participant who holds Options at the time of granting an Option, may hold more than one Option.

**6.3 Exercise Price.** The Exercise Price per Common Share under each Option will be determined by the Compensation Committee, in its sole discretion, but will in no event be less than the Fair Market Value of the date of the grant.

## 7. U.S. QUALIFIED INCENTIVE STOCK OPTION PROVISIONS

To the extent required by Section 422 of the U.S. Internal Revenue Code, U.S. Qualified Incentive Stock Options shall be subject to the following additional terms and conditions and if there is any conflict between the terms of this Article and other provisions under this Plan, the provisions under this Article shall prevail:

**7.1 Eligible Employees.** All classes of employees of the Corporation or one of its parent corporations or subsidiary corporations may be granted U.S. Qualified Incentive Stock Options. U.S. Qualified Incentive Stock Options shall only be granted to U.S. Optionees who are, at the time of grant, officers, key employees or directors of the Corporation or one of its parent corporations or subsidiary corporations (provided, for purposes of this Article 7 only, such directors are then also officers or key employees of the Corporation or one of its parent corporations or subsidiary corporations). For purposes of this Article 7, "parent corporation" and "subsidiary corporation" shall have the meanings attributed to those terms for the purposes of Section 422 of the U.S. Internal Revenue Code. Any director of the Corporation who is a U.S. Optionee shall be ineligible to vote upon the granting of such Option; and for greater certainty, contractors of the Corporation or subsidiary corporations may not be granted U.S. Qualified Incentive Stock Options.

**7.2 Dollar Limitation.** To the extent the aggregate fair market value (determined as of the grant date) of Common Shares with respect to which U.S. Qualified Incentive Stock Options are exercisable for the first time by a U.S. Optionee during any calendar year (under this Plan and all other stock option plans of the Corporation) exceeds U.S. \$100,000, such portion in excess of U.S. \$100,000 shall be treated as a U.S. Nonqualified Stock Option. In the event the U.S. Optionee holds two or more such Options that become exercisable for the first time in the same calendar year, such limitation shall be applied on the basis of the order in which such Options are granted.

**7.3 10% Shareholders.** If any U.S. Optionee to whom an U.S. Qualified Incentive Stock Option is to be granted under this Plan at the time of the grant of such U.S. Qualified Incentive Stock Option is the owner of shares possessing more than ten percent (10%) of the total combined voting power of all classes of shares of the Corporation, then the following special provisions shall be applicable to the U.S. Qualified Incentive Stock Option granted to such individual:

- (i) the Exercise Price (per Common Share) subject to such U.S. Qualified Incentive Stock Option shall not be less than one hundred ten percent (110%) of the fair market value of one Common Share at the time of grant; and
- (ii) for the purposes of this Article 7 only, the option exercise period shall not exceed five (5) years from the date of grant.

The determination of 10% ownership shall be made in accordance with Section 422 of the U.S. Internal Revenue Code.

**7.4 Exercisability.** To qualify for U.S. Qualified Incentive Stock Option tax treatment, an Option designated as a U.S. Qualified Incentive Stock Option must be exercised within three months after termination of employment for reasons other than death, except that, in the case of termination of employment due to total disability, such Option must be exercised within one year after such termination. Employment shall not be deemed to continue beyond the first 90 days of a leave of absence unless the U.S. Optionee's reemployment rights are guaranteed by statute or contract. For purposes of this Section 7.4, "total disability" shall mean a mental or physical impairment of the U.S. Optionee which is expected to result in death or which has lasted or is expected to last for a continuous period of 12 months or more and which causes the U.S. Optionee to be unable, in the opinion of the Corporation and two independent physicians, to perform his or her duties for the Corporation and to be engaged in any substantial gainful activity. Total disability shall be deemed to have occurred on the first day after the Corporation and the two independent physicians have furnished their opinion of total disability to the Compensation Committee.

**7.5 Taxation of U.S. Qualified Incentive Stock Options.** In order to obtain certain tax benefits afforded to U.S. Qualified Incentive Stock Options under Section 422 of the U.S. Internal Revenue Code, the U.S. Optionee must hold the Common Shares issued upon the exercise of a U.S. Qualified Incentive Stock Option for two years after the date of grant of the U.S. Qualified Incentive Stock Option and one year from the date of exercise. A U.S. Optionee may be subject to U.S. alternative minimum tax at the time of exercise of a U.S. Qualified Incentive Stock Option. The Compensation Committee may require a U.S. Optionee to give the Corporation prompt notice of any disposition of shares acquired by the exercise of a U.S. Qualified Incentive Stock Option prior to the expiration of such holding periods.

**7.6 Transferability.** No U.S. Qualified Incentive Stock Option granted under this Plan may be assigned or transferred by the U.S. Optionee other than by will or by the laws of descent and distribution, and during the U.S. Optionee's lifetime, such U.S. Qualified Incentive Stock Option may be exercised only by the U.S. Optionee.

**7.7 Compensation Committee Governance if U.S. Registrant.** If and so long as the Common Shares are registered under Section 12(b) or 12(g) of the U.S. Securities Exchange Act, the Board of Directors will consider in selecting the members of the Compensation Committee, with respect to any persons subject or likely to become subject to Section 16 of the U.S. Securities Exchange Act, the provisions regarding "nonemployee directors" as contemplated by Rule 16b-3 under the U.S. Securities Exchange Act.

**7.8 Exercise Price.** Notwithstanding Section 6.3, no U.S. Qualified Incentive Stock Option granted under the Plan shall have an Exercise Price less than the fair market value of the underlying Common Shares at the date of grant of such Option, as determined at such time in good faith by the Board or Directors or the Compensation Committee, as the case may be.

**7.9 Approval by Shareholders.** No U.S. Qualified Incentive Stock Option granted to a U.S. Optionee under this Plan shall become exercisable unless and until this Plan shall have been approved by the shareholders of the Corporation within 12 months of approval by the Board of Directors of the Corporation.

**7.10 Option Agreements.** Each Option will be evidenced by an Option Agreement which incorporates such terms and conditions as the Compensation Committee in its discretion deems appropriate and consistent with the provisions of this Plan (and the execution and delivery by the Corporation of an Option Agreement with a Participant shall be conclusive evidence that such Option Agreement incorporates terms and conditions approved by the Compensation Committee and is consistent with the provisions of this Plan). Each Option Agreement will be executed by the Participant to whom the Option is granted and on behalf of the Corporation by any member of the Compensation Committee or any officer of the Corporation or such other person as the Compensation Committee may designate for such purpose. Each Option Agreement will specify the reasons for the Corporation granting Options to such Participant.

## 8. EXERCISE OF OPTIONS

**8.1 Exercise of Options.** Subject to the terms and conditions of this Plan, the Compensation Committee may impose such limitations or conditions on the exercise or vesting of any Option as the Compensation Committee in its discretion deems appropriate, including limiting the number of Common Shares for which any Option may be exercised during any period as may be specified by the Compensation Committee and which number of Common Shares for which such Option may be exercised in any period will be specified in the Option Agreement with respect to such Option. Each Option Agreement will provide that the Option granted thereunder may be exercised only by notice signed by the Participant or the Legal Representative of the Participant and accompanied by full payment for the Common Shares being purchased. Such consideration may be paid in any combination of the following:

- (a) cash, bank draft or certified cheque; or
- (b) such other consideration as the Compensation Committee may permit consistent with applicable laws.

As soon as practicable after any exercise of an Option, a certificate or certificates representing the Common Shares in respect of which such Option is exercised will be delivered by the Corporation to the Participant.

**8.2 Conditions.** Notwithstanding any of the provisions contained in this Plan or in any Option Agreement, the Corporation's obligation to issue Common Shares to a Participant pursuant to the exercise of an Option will be subject to, if applicable:

- (a) completion of such registration or other qualification of such Common Shares or obtaining approval of such governmental authority as the Corporation will determine to be necessary or advisable in connection with the authorization, issuance or sale thereof;
- (b) the admission of such Common Shares to listing or quotation on the Stock Exchange; and
- (c) the receipt from the Participant of such representations, agreements and undertakings, including as to future dealings in such Common Shares, as the Corporation or its counsel determines to be necessary or advisable in order to safeguard against the violation of the securities laws of any jurisdiction.

## 9. GRANT OF TANDEM SARs

**9.1 Grant of Tandem SARs.** The Compensation Committee or the Board of Directors, as applicable, may from time to time grant an Award of Tandem SARs to a Participant for each Option granted to such Participant on such terms and conditions, consistent with the Plan, as the Compensation Committee or the Board of Directors, as applicable, shall determine.

**9.2 Terms of Tandem SARs.** Tandem SARs may be granted at or after the grant date of the related grant of Options, and each Tandem SAR shall be subject to the same terms and conditions and denominated in the same currency as the Option to which it relates and the additional terms and conditions set forth in this Article 9.

**9.3 Exercise of Tandem SARs.** The Participant shall have the right to elect to exercise either an Option or the related Tandem SAR, if so granted. If the Participant elects to exercise a Tandem SAR, the related Option shall be cancelled. Tandem SARs may be exercised only if and to the extent the Options related thereto are then vested. Tandem SARs shall be exercisable at the election of the Participant by delivering to the Corporation a notice specifying the number of Options in respect of which the Tandem SARs are exercised. The Participant shall not pay the Option Exercise Price attributable to the Option to which the Tandem SAR is related, but must pay or satisfy, in accordance with the terms of Article 17, any withholding amounts or administrative costs with respect to such exercise.

**9.4 Settlement of Tandem SARs.** Upon exercise of a Tandem SAR, and subject to payment or other satisfaction of all related withholding obligations in accordance with Article 17, such Tandem SAR shall be settled and the Participant shall be entitled to a cash payment, Common Shares or a combination thereof, at the discretion of the Compensation Committee, and settlement:

- (a) made in Common Shares shall be equal to such number of Common Shares having an aggregate value equal to the excess of the Fair Market Value of a Common Share on the date of exercise of the Tandem SAR over the Option Exercise Price for the corresponding Option, multiplied by the number of Tandem SARs exercised;
- (b) made by a cash payment shall be an aggregate amount equivalent to the value derived by 9.4(a); and
- (c) made by a combination of a cash payment and Common Shares shall be equivalent to the value derived by 9.4(a).

## **10. GRANT OF RESTRICTED STOCK UNITS**

**10.1 Grant of Restricted Stock Units.** Restricted Stock Units may be granted pursuant to the terms of the Plan from time to time by the Compensation Committee or the Board of Directors, as applicable. The date on which any Restricted Stock Unit will be deemed to have been granted will be the date on which the Compensation Committee or the Board of Directors, as applicable, authorizes the grant of such Award.

**10.2 Vesting Terms.** Restricted Stock Units shall become vested at such times, in such instalments, and subject to such terms and conditions as may be determined by the Compensation Committee and set forth in the applicable Award Agreement.

**10.3 Settlement of Restricted Stock Units.** Restricted Stock Units shall be settled upon, or as soon as reasonably practicable following, the vesting thereof, subject to payment or other satisfaction of all related withholding obligations in accordance with Article 17 hereof and administrative costs. Settlement shall be made by a cash payment, Common Shares, or a combination thereof, as determined by the Compensation Committee in its sole discretion, and settlement:

- (a) made in Common Shares shall be made by delivery of one Common Share for each such Restricted Stock Unit then being settled;
- (b) made by a cash payment shall be an aggregate amount equal to the product of the Fair Market Value of the Common Shares on the applicable settlement date as specified by the Compensation Committee, multiplied by the number of Restricted Stock Units then being settled; and
- (c) made by a combination of a cash payment and Common Shares shall be equivalent to the value derived by 10.3(b).

## **11. GRANT OF DEFERRED STOCK UNITS**

**11.1 Grant of Deferred Stock Units.** Deferred Stock Units may be granted pursuant to the terms of the Plan from time to time by the Compensation Committee or the Board of Directors, as applicable. The date on which any Deferred Stock Unit will be deemed to have been granted will be the date on which the Compensation Committee or the Board of Directors, as applicable, authorizes the grant of such Award.

**11.2 Vesting Terms.** Deferred Stock Units shall become vested at such times and subject to such terms and conditions as may be determined by the Compensation Committee and set forth in the applicable Award Agreement.

**11.3 Determination of Deferred Stock Units.** Deferred Stock Units awarded pursuant to this Plan will be credited to an account maintained for each Participant by the Corporation as and when awards are made. The number of Deferred Share Units to be credited to a Participant will be determined on the date on which the Compensation Committee or the Board of Directors, as applicable, authorizes the grant of DSU award, on a one Deferred Share Unit per Share basis.

**11.4 Settlement of Deferred Stock Units.** Deferred Stock Units shall be settled upon the Terminated Service of a Participant, pursuant to the terms and conditions of this Section 11.4, and subject to payment or other satisfaction of all related withholding obligations in accordance with Article 17 hereof and administrative costs. Settlement Amounts in respect of Deferred Stock Units shall be settled by a cash payment, Common Shares or any combination thereof, as determined by the Compensation Committee in its sole discretion, and settlement:

- (a) made in Common Shares shall be made by delivery of one Common Share for each such Deferred Stock Unit then being settled on the Filing Date;
- (b) made by a cash payment shall be an aggregate amount equivalent to the value derived by 11.4(a); and
- (c) made by a combination of a cash payment and Common Shares will be equivalent to the value derived by 11.4(a).

## 11.5 Payment of Settlement Amount.

### (a) Non-U.S. Persons

- (i) a Participant who is not a U.S. Person and who has Terminated Service may receive their Settlement Amount by filing a Notice of Settlement on or before December 15 of the first calendar year commencing after the date of the Participant's Terminated Service. If the Participant fails to file such notice on or before that December 15, the Participant will be deemed to have filed the Notice of Settlement on that December 15.
- (ii) subject to Article 18 herein, the Corporation shall make payment of the Settlement Amount as soon as reasonably possible following the Filing Date.
- (iii) in the event of the death of a Participant who is not a U.S. Person, the Corporation will, subject to Article 18 herein, make payment of the Settlement Amount within two months of the Participant's death to or for the benefit of the legal representative of the deceased Participant. For the purposes of this subsection, the Filing Date shall be the date of the Participant's death.
- (iv) if a Participant who is not a U.S. Person dies after the Participant has Terminated Service but before filing a Notice of Settlement, Section 11.5(a)(iii) will apply.

### (b) U.S. Persons

- (i) in the event that a Participant who is a U.S. Person and not a Key Employee has Terminated Service, the Corporation will, subject to Article 18 herein, make payment of the Settlement Amount as soon as reasonably possible following such Participant's Terminated Service. For the purposes of this subsection, the Filing Date shall be the date that such Participant Terminated Service.
- (ii) in the event that a Participant who is a U.S. Person and a Key Employee has Terminated Service, the Corporation will, subject to Article 18 herein, make payment of the Settlement Amount as soon as is reasonably possible following the date that is 6 months after the date that such Participant Terminated Service. For the purposes of this subsection, the Filing Date shall be the date which is 6 months after the date that such Participant Terminated Service. In the event of death of such a Participant during the 6 month period following the date the Participant Terminated Service, the rules under Section 11.5(b)(ii) shall then apply.
- (iii) in the event of the death of a Participant who is a U.S. Person, the Corporation will, subject to Article 18 herein, make payment of the Settlement Amount within two months of the Participant's death to or for the benefit of the legal representative of the deceased Participant. For the purposes of this subsection, the Filing Date shall be the date of the Participant's death.

**12.1 Term of Options and Tandem SARs.** Unless otherwise determined by the Compensation Committee, each Option and Tandem SAR granted pursuant to this Plan will, subject to the provisions of this Plan, expire automatically on the earlier of:

- (a) the date determined by the Compensation Committee and specified in the Award Agreement pursuant to which such Option and, if applicable, Tandem SAR is granted, provided that such date may not be, subject to Article 18 later than the earlier of (A) the date which is the tenth anniversary of the date on which such Option and, if applicable, Tandem SAR is granted, and (B) the latest date permitted under the applicable rules and regulations of all regulatory authorities to which the Corporation is subject, including the Stock Exchange;
- (b) in the event the Participant ceases to be an Eligible Person for any reason, other than the death of the Participant or the termination of the Participant for cause, such period of time after the date on which the Participant ceases to be an Eligible Person as may be specified by the Compensation Committee or as specified in an agreement among the Participant and the Corporation, and in the absence of such specification or agreement, will be deemed to be the date that is three months following the Participant ceasing to be an Eligible Person
- (c) in the event of the termination of the Participant as a director, officer, employee or Consultant of the Corporation or an Affiliate for cause, the date of such termination;
- (d) in the event of the death of a Participant prior to: (A) the Participant ceasing to be an Eligible Person; or (B) the date which is the number of days specified by the Compensation Committee pursuant to subparagraph (b) above from the date on which the Participant ceased to be an Eligible Person; the date which is one year after the date of death of such Participant or such other date as may be specified by the Compensation Committee and which period will be specified in the Award Agreement with the Participant with respect to such Option ; and
- (e) notwithstanding the foregoing provisions of subparagraphs (b), (c) and (d) of this Section 12.1, the Compensation Committee may, subject Article 19 and to regulatory approval, at any time prior to expiry of an Option extend the period of time within which an Option may be exercised by a Participant who has ceased to be an Eligible Person, but such an extension shall not be granted beyond the original expiry date of the Option as provided for in subparagraph (a) above.

**12.2 Options and Tandem SARs Cease to Vest.** Notwithstanding the foregoing, except as expressly permitted by the Compensation Committee, all Options will cease to vest as at the date upon which the Participant ceases to be an Eligible Person.

**12.3 Accelerated Vesting of Options and Tandem SARs on Death.** In the event of the death of the Participant prior to the Participant ceasing to be an Eligible Person, all Options and Tandem SARs of such Participant shall become immediately vested.

**12.4 Term of Restricted Stock Units.** Unless otherwise determined by the Compensation Committee:

- (a) in the event a Participant ceases to be an Eligible Person due to death or retirement, any then outstanding Restricted Stock Units that have not become vested and settled prior to the Participant ceasing to be an Eligible Person shall immediately vest and be settled as soon as reasonably practicable after the date that such Participant ceases to be an Eligible Person;
- (b) in the event a Participant ceases to be an Eligible Person due to resignation, any then outstanding Restricted Stock Units that have not become vested and settled prior to the Participant ceasing to be an Eligible Person shall immediately be forfeited and cancelled; and
- (c) in the event a Participant ceases to be an Eligible Person due to disability or termination without cause, any then outstanding Restricted Stock Units that have not become vested and settled prior to the Participant ceasing to be an Eligible Person shall vest and be settled at the discretion of the Compensation Committee.

**12.5 Termination of a Participant for Cause.** Notwithstanding any other provision hereof or in any Award Agreement, in the case of a Participant's termination for cause, any and all then outstanding Awards granted to the Participant, whether or not vested, shall be immediately forfeited and cancelled, without any consideration therefore, and any and all rights of such Participant with respect to and arising from this Plan shall terminate, as of the commencement of the date that notice of such termination is given, without regard to any period of reasonable notice or any salary continuance, unless otherwise determined by the Compensation Committee.

### **13. CHANGE IN STATUS**

13.1 A change in the status, office, position or duties of a Participant from the status, office, position or duties held by such Participant on the date on which the Award was granted to such Participant will not result in the termination of the Award granted to such Participant provided that such Participant remains a director, officer, employee or Consultant of the Corporation or an Affiliate.

### **14. NON-TRANSFERABILITY OF AWARDS**

14.1 Each Award Agreement will provide that the Award granted thereunder is not transferable or assignable and may be exercised or settled, as the case may be, only by the Participant or, in the event of the death of the Participant or the appointment of a committee or duly appointed attorney of the Participant or of the estate of the Participant on the grounds that the Participant is incapable, by reason of physical or mental infirmity, of managing their affairs, the Participant's legal representative or such committee or attorney, as the case may be (the "Legal Representative").

15.1 Each Award Agreement will contain representations and covenants of the Participant that:

- (a) the Participant is a director, officer, employee, or Consultant of the Corporation or an Affiliate or a person otherwise approved as an "Eligible Person" under this Plan by the Compensation Committee;
- (b) the Participant has not been induced to enter into such Award Agreement by the expectation of employment or continued employment with the Corporation or an Affiliate;
- (c) the Participant is aware that the grant of the Award and the issuance by the Corporation of Common Shares thereunder are exempt from the obligation under applicable securities laws to file a prospectus or other registration document qualifying the distribution of the Awards or the Common Shares to be distributed thereunder under any applicable securities laws;
- (d) upon each exercise or settlement of an Award, the Participant, or the Legal Representative of the Participant, as the case may be, will, if requested by the Corporation, represent and agree in writing that the person is, or the Participant was, a director, officer, employee or Consultant of the Corporation or an Affiliate or a person otherwise approved as an "Eligible Person" under this Plan by the Compensation Committee and has not been induced to purchase the Common Shares by expectation of employment or continued employment with the Corporation or an Affiliate, and that such person is not aware of any commission or other remuneration having been paid or given to others in respect of the trade in the Common Shares; and
- (e) if the Participant or the Legal Representative of the Participant exercises or settles the Award, the Participant or the Legal Representative, as the case may be, will prior to and upon any sale or disposition of any Common Shares received pursuant to the exercise or settlement of the Award, comply with all applicable securities laws and all applicable rules and regulations of all regulatory authorities to which the Corporation is subject, including the Stock Exchange, and will not offer, sell or deliver any of such Common Shares, directly or indirectly, in the United States or to any citizen or resident of, or any Corporation, partnership or other entity created or organized in or under the laws of, the United States, or any estate or trust the income of which is subject to United States federal income taxation regardless of its source, except in compliance with the securities laws of the United States.

**16. PROVISIONS RELATED TO SHARE ISSUANCES**

16.1 Each Award Agreement will contain such provisions as in the opinion of the Compensation Committee are required to ensure that no Common Shares are issued on the exercise or settlement of an Award unless the Compensation Committee is satisfied that the issuance of such Common Shares will be exempt from all registration or qualification requirements of applicable securities laws and will be permitted under the applicable rules and regulations of all regulatory authorities to which the Corporation is subject, including the Stock Exchange. In particular, if required by any regulatory authority to which the Corporation is subject, including the Stock Exchange, an Award Agreement may provide that shareholder approval to the grant of an Award must be obtained prior to the exercise or settlement of the Award or to the amendment of the Award Agreement.

**17. WITHHOLDING TAX**

17.1 The Participant will be solely responsible for paying any applicable withholding taxes arising from the grant, vesting, exercise or settlement of any Award and payment is to be made in a manner satisfactory to the Corporation. Notwithstanding the foregoing, the Corporation will have the right to withhold from any Award or any Common Shares issuable pursuant to an Award or from any cash amounts otherwise due or to become due from the Corporation to the Participant, an amount equal to any such taxes.

**18. EXERCISE AND SETTLEMENT OF AWARDS DURING BLACKOUT PERIODS**

**18.1 Adjustment for Exercise of Awards during Blackout Periods.** Where the expiry date of an Option or Tandem SAR occurs during a Blackout Period or within ten Non Blackout Trading Days following the end of a Blackout Period, the expiry date for such Option or Tandem SAR shall be the date which is ten Non-Blackout Trading Days following the end of such Blackout Period.

**18.2 Extension for Settlement during Blackout Periods.** Where the date for the settlement of Restricted Stock Units or the payment of a Settlement Amount occurs during a Blackout Period, the Corporation shall make such settlement or pay such Settlement Amount to the holder of such an Award within ten Non Blackout Trading Days following the end of such Blackout Period.

**19. SUSPENSION, AMENDMENT OR TERMINATION OF PLAN**

**19.1 Suspension, Amendment or Termination of Plan.** This Plan will terminate on the tenth anniversary of the Effective Date. The Compensation Committee will have the right at any time to suspend, amend or terminate this Plan and, subject to Section 19.2, may:

- (a) with approval of shareholders of the Corporation by ordinary resolution make any amendment to any Award Agreement or the Plan; and
- (b) without approval of shareholders of the Corporation make the following amendments to any Award Agreement or the Plan:

- (i) amendments of a clerical nature, including but not limited to the correction of grammatical or typographical errors or clarification of terms;
- (ii) amendments to reflect any requirements of any regulatory authorities to which the Corporation is subject, including the Stock Exchange;
- (iii) subject to the terms and conditions of the Plan, amendments to vesting provisions of Award Agreements;
- (iv) extend the term of Options and Tandem SARs held by non-Insiders of the Corporation;
- (v) reduce the Exercise Price per Common Share under any Option held by non-Insiders of the Corporation or replace such Option with a lower Exercise Price per Common Share under such replacement Option; and
- (vi) amendments which provide cashless exercise features to an Option that require the full deduction of the number of underlying Common Shares from the total number of Common Shares subject to the Plan.

Notwithstanding the foregoing, all procedures and necessary approvals required under the applicable rules and regulations of all regulatory authorities to which the Corporation is subject shall be complied with and obtained in connection with any such suspension, termination or amendment to the Plan or amendments to any Award Agreement.

**19.2 Limitations.** In exercising its rights pursuant to Section 19.1, the Compensation Committee will not have the right to:

- (a) without the prior approval of shareholders and except as permitted pursuant to Article 20, (i) extend the term of an Option or Tandem SAR held by an Insider of the Corporation; or (ii) reduce the Exercise Price per Common Share under any Option held by an Insider of the Corporation; or (iii) cancel any Option held by an Insider and replace such Option within three months;
- (b) affect in a manner that is adverse or prejudicial to, or that impairs, the benefits and rights of any Participant under any Award previously granted under this Plan (except as permitted pursuant to Article 20 and except for the purpose of complying with applicable securities laws or the bylaws, rules and regulations of any regulatory authority to which the Corporation is subject, including the Stock Exchange);
- (c) decrease the number of Common Shares which may be purchased pursuant to any Option (except as permitted pursuant to Article 20) without the consent of such Participant;
- (d) set the Exercise Price of any Option below the Fair Market Value of such Option on the date of grant;

- (e) increase the Exercise Price at which Common Shares may be purchased pursuant to any Option (except as permitted pursuant to Article 20) without the consent of such Participant;
- (f) extend the term of any Option beyond a period of ten years or the latest date permitted under the applicable rules and regulations of all regulatory authorities to which the Corporation is subject, including the Stock Exchange;
- (g) grant any Award if this Plan is suspended or has been terminated; or
- (h) change or adjust any outstanding U.S. Qualified Incentive Stock Option without the consent of the Participant if such change or adjustment would constitute a "modification" that would cause such U.S. Qualified Incentive Stock Option to fail to continue to qualify as a U.S. Qualified Incentive Stock Option.

**19.3 Powers of Compensation Committee Survive Termination.** The full powers of the Compensation Committee as provided for in this Plan will survive the termination of this Plan until all Awards have been exercised or settled in full or have otherwise expired.

## **20. ADJUSTMENTS**

**20.1 Adjustments.** Appropriate adjustments in the number of Common Shares subject to this Plan, as regards Awards granted or to be granted, in the Option Exercise Price of an Option, in the number of Common Shares to be issued or cash payments to be made in respect of the settlement of any Award, or any other matter of will be conclusively determined by the Compensation Committee to give effect to adjustments in the number of Common Shares resulting from subdivisions, consolidations, substitutions, or reclassifications of the Common Shares, the payment of stock dividends by the Corporation (other than dividends in the ordinary course) or other relevant changes in the capital of the Corporation or from a proposed merger, amalgamation or other corporate arrangement or reorganization involving the exchange or replacement of Common Shares of the Corporation for those in another corporation. Any dispute that arises at any time with respect to any such adjustment will be conclusively determined by the Compensation Committee, and any such determination will be binding on the Corporation, the Participant and all other affected parties.

**20.2 Merger and Acquisition Transaction.** In the event of a Merger and Acquisition Transaction or proposed Merger and Acquisition Transaction, the Compensation Committee, at its option, may do any of the following:

- (a) the Compensation Committee may, in a fair and equitable manner, determine the manner in which all unexercised Options or unsettled Awards granted under this Plan will be treated including, without limitation, requiring the acceleration of the time for the exercise or settlement of Awards by the Participants, the time for the fulfilment of any conditions or restrictions on such exercise or settlement, and the time for the expiry of such rights; or
- (b) the Compensation Committee or any corporation which is or would be the successor to the Corporation or which may issue securities in exchange for Common Shares upon the Merger and Acquisition Transaction becoming effective may offer any Participant the opportunity to obtain a new or replacement awards over any securities into which the Common Shares are changed or are convertible or exchangeable, on a basis proportionate to the number of Common Shares under Award, including Exercise Price, as applicable (and otherwise substantially upon the terms of the Award being replaced, or upon terms no less favourable to the Participant) including, without limitation, the periods during which the Award may be exercised or settled and expiry dates of such Awards; and in such event, the Participant shall, if he accepts such offer, be deemed to have released his Award over the Common Shares and such Award shall be deemed to have lapsed and be cancelled; or

- (c) the Compensation Committee may commute for or into any other security or any other property or cash, any Award that is still capable of being exercised or settled, upon giving to the Participant to whom such Award has been granted at least 30 days written notice of its intention to commute such Award, and during such period of notice, the Award, to the extent it has not been exercised or settled, may be exercised or settled by the Participant without regard to any vesting conditions attached thereto; and on the expiry of such period of notice, the unexercised or unsettled portion of the Award shall lapse and be cancelled.

Section 20.1 and subsections (a), (b) and (c) of this Section 20.2 are intended to be permissive and may be utilized independently or successively in combination or otherwise, and nothing therein contained shall be construed as limiting or affecting the ability of the Compensation Committee to deal with Awards in any other manner. All determinations by the Compensation Committee under this Section will be final, binding and conclusive for all purposes.

**20.3 Limitations.** The grant of Awards under this Plan will in no way affect the Corporation's right to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, amalgamate, reorganize, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets or engage in any like transaction.

**20.4 No Fractional Shares.** No adjustment or substitution provided for in this Article 20 will require the Corporation to issue a fractional share in respect of any Award and the total substitution or adjustment with respect to each Award will be limited accordingly.

## **21. GENERAL**

**21.1 No Rights as Shareholder.** Nothing herein or otherwise shall be construed so as to confer on any Participant any rights as a shareholder of the Corporation with respect to any Common Shares reserved for the purpose of any Award.

**21.2 No Effect on Employment.** Nothing in this Plan or any Award Agreement will confer upon any Participant any right to continue in the employ of or under contract with the Corporation or an Affiliate or affect in any way the right of the Corporation or any such Affiliate to terminate his or her employment at any time or terminate his or her consulting contract; nor will anything in this Plan or any Award Agreement be deemed or construed to constitute an agreement, or an expression of intent, on the part of the Corporation or any such Affiliate to extend the employment of any Participant beyond the time that he or she would normally be retired pursuant to the provisions of any present or future retirement plan of the Corporation or an Affiliate or any present or future retirement policy of the Corporation or an Affiliate, or beyond the time at which he or she would otherwise be retired pursuant to the provisions of any contract of employment with the Corporation or an Affiliate. Neither any period of notice nor any payment in lieu thereof upon termination of employment shall be considered as extending the period of employment for the purposes of the Plan.

**21.3 No Fettering of Directors' Discretion.** Nothing contained in this Plan will restrict or limit or be deemed to restrict or limit the right or power of the Board of Directors in connection with any allotment and issuance of Common Shares which are not allotted and issued under this Plan including, without limitation, with respect to other compensation arrangements.

**21.4 Applicable Law.** The Plan and any Award Agreement granted hereunder will be governed, construed and administered in accordance with the laws of the Province of British Columbia and the laws of Canada applicable therein.

**21.5 Interpretation.** References herein to any gender include all genders and to the plural includes the singular and vice versa. The division of this Plan into Sections and Articles and the insertion of headings are for convenience of reference only and will not affect the construction or interpretation of this Plan.

**21.6 Reference.** This Plan may be referred to as the "Tekmira 2011 Share Compensation Plan".

**CERTIFICATION PURSUANT TO RULE 13a-14 OR 15d-14 OF THE SECURITIES  
EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE  
SARBANES-OXLEY ACT OF 2002**

I, Mark Murray, certify that:

1. I have reviewed this Form 10-Q Tekmira Pharmaceuticals Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 14, 2014

/s/ Mark Murray

---

Name: Mark Murray  
Title: President and Chief Executive Officer

**CERTIFICATION PURSUANT TO RULE 13a-14 OR 15d-14 OF THE SECURITIES  
EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE  
SARBANES-OXLEY ACT OF 2002**

I, Bruce Cousins, certify that:

1. I have reviewed this Form 10-Q of Tekmira Pharmaceuticals Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 14, 2014

/s/ Bruce Cousins

---

Name: Bruce Cousins  
Title: Executive Vice President, Finance and  
Chief Financial Officer

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO SECTION 906  
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Tekmira Pharmaceuticals Corporation (the "Company") on Form 10-Q for the quarter ended March 31, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I Mark Murray, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: May 14, 2014

/s/ Mark Murray

Name: Mark Murray

Title: President and Chief Executive Officer

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO SECTION 906  
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Tekmira Pharmaceuticals Corporation (the "Company") on Form 10-Q for the quarter ended March 31, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I Bruce Cousins, Executive Vice President, Finance and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: May 14, 2014

/s/ Bruce Cousins

---

Name: Bruce Cousins  
Title: Executive Vice President, Finance and  
Chief Financial Officer