

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, 2015

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 V5J 5J8**  
(Address of Principal Executive Offices)

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             Smaller reporting company   
(Do not check if a smaller reporting  
company)

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

As of April 30, 2015, the registrant had 54,224,261 common shares, no par value, outstanding.

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**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>	<b>December 31</b>
	<b>2015</b>	<b>2014</b>
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 232,276	\$ 72,187
Short-term investments (note 2)	-	39,974
Accounts receivable	4,564	1,903
Accrued revenue	1,595	538
Investment tax credits receivable	79	86
Prepaid expenses and other assets	1,255	1,730
<b>Total current assets</b>	<b>239,769</b>	<b>116,418</b>
Property and equipment	11,925	12,959
Less accumulated depreciation	(10,147)	(11,199)
Property and equipment, net of accumulated depreciation	1,778	1,760
Intangible assets (note 3)	389,652	-
Goodwill (note 3)	155,865	-
<b>Total assets</b>	<b>\$ 787,064</b>	<b>\$ 118,178</b>
<b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Accounts payable and accrued liabilities (note 5)	\$ 14,019	\$ 9,328
Deferred revenue (note 4)	5,233	5,779
Warrants (note 2)	5,623	5,099
<b>Total current liabilities</b>	<b>24,875</b>	<b>20,206</b>
Deferred revenue, net of current portion (note 4)	7,897	9,937
Contingent consideration (note 8)	4,736	-
Deferred tax liability (note 3)	155,865	-
<b>Total liabilities</b>	<b>193,373</b>	<b>30,143</b>
<b>Stockholders' equity:</b>		
Common shares (note 3 and note 6)		
Authorized - unlimited number with no par value		
Issued and outstanding: 54,095,921 (December 31, 2014 - 22,438,169)	814,441	290,004
Additional paid-in capital	28,590	26,208
Deficit	(217,853)	(205,864)
Accumulated other comprehensive loss	(31,487)	(22,313)
<b>Total stockholders' equity</b>	<b>593,691</b>	<b>88,035</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 787,064</b>	<b>\$ 118,178</b>

Nature of business and future operations (note 1)

Contingencies and commitments (note 8)

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)

	Three-months ended March 31	
	2015	2014
<b>Revenue (note 4)</b>		
Collaborations and contracts	\$ 3,520	\$ 3,689
Licensing fees, milestone and royalty payments	1,162	741
<b>Total revenue</b>	<b>4,682</b>	<b>4,430</b>
<b>Expenses</b>		
Research, development, collaborations and contracts	10,557	8,204
General and administrative	2,716	2,050
Depreciation of property and equipment	120	134
Acquisition costs (note 3)	9,295	-
<b>Total expenses</b>	<b>22,688</b>	<b>10,388</b>
<b>Loss from operations</b>	<b>(18,006)</b>	<b>(5,958)</b>
<b>Other income (losses)</b>		
Interest income	202	147
Foreign exchange gains	7,038	1,443
Increase in fair value of warrant liability (note 2)	(1,223)	(13,616)
<b>Net loss</b>	<b>\$ (11,989)</b>	<b>\$ (17,984)</b>
Loss per common share		
Basic and diluted	\$ (0.40)	\$ (0.91)
Weighted average number of common shares		
Basic and diluted	30,208,136	19,801,428
<b>Comprehensive loss</b>		
Cumulative translation adjustment	(9,174)	(2,159)
<b>Comprehensive loss</b>	<b>\$ (21,163)</b>	<b>\$ (20,143)</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
<b>Balance, December 31, 2014</b>	<b>22,438,169</b>	<b>\$ 290,004</b>	<b>\$ 26,208</b>	<b>\$ (205,864)</b>	<b>\$ (22,313)</b>	<b>\$ 88,035</b>
Stock-based compensation	-	-	2,934	-	-	2,934
Issuance of common shares pursuant to exercise of options	172,937	1,172	(552)	-	-	620
Issuance of common shares pursuant to exercise of warrants	11,500	275	-	-	-	275
Issuance of common shares in conjunction with the private offering, net of issuance costs of \$9,700,000	7,500,000	142,175	-	-	-	142,175
Issuance of common shares in conjunction with the acquisition of OnCore (note 3)	23,973,315	380,815	-	-	-	380,815
Currency translation adjustment	-	-	-	-	(9,174)	(9,174)
Net loss	-	-	-	(11,989)	-	(11,989)
<b>Balance, March 31, 2015</b>	<b>54,095,921</b>	<b>\$ 814,441</b>	<b>\$ 28,590</b>	<b>\$ (217,853)</b>	<b>\$ (31,487)</b>	<b>\$ 593,691</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)

(Prepared in accordance with US GAAP)

	<b>Three months ended</b>	
	<b>March 31</b>	
	2015	2014
<b>OPERATING ACTIVITIES</b>		
Net income (loss) for the period	\$ (11,989)	\$ (17,984)
Items not involving cash:		
Depreciation of property and equipment	120	134
Stock-based compensation - research, development, collaborations and contract expenses	2,157	848
Stock-based compensation - general and administrative expenses	777	340
Unrealized foreign exchange (gains) losses	(7,057)	(59)
Change in fair value of warrant liability	1,223	13,616
Net change in non-cash operating items:		
Accounts receivable	(2,886)	(1,409)
Accrued revenue	(1,126)	(208)
Deferred expenses	-	55
Prepaid expenses and other assets	221	482
Accounts payable and accrued liabilities	2,008	1,051
Deferred revenue	(1,291)	12,289
<b>Net cash provided by (used in) operating activities</b>	<b>(17,843)</b>	<b>9,155</b>
<b>INVESTING ACTIVITIES</b>		
Disposition of short-term investments	37,363	-
Cash acquired through acquisition of OnCore (note 3)	324	-
Acquisition of property and equipment	(141)	(335)
<b>Net cash provided by (used) in investing activities</b>	<b>37,546</b>	<b>(335)</b>
<b>FINANCING ACTIVITIES</b>		
Proceeds from issuance of common shares, net of issuance costs	142,175	56,477
Issuance of common shares pursuant to exercise of options	620	1,924
Issuance of common shares pursuant to exercise of warrants	25	888
<b>Net cash provided by financing activities</b>	<b>142,820</b>	<b>59,289</b>
Effect of foreign exchange rate changes on cash and cash equivalents	(2,434)	(2,469)
<b>Increase in cash and cash equivalents</b>	<b>160,089</b>	<b>65,640</b>
Cash and cash equivalents, beginning of period	72,187	68,717
<b>Cash and cash equivalents, end of period</b>	<b>\$ 232,276</b>	<b>\$ 134,357</b>
<b>Supplemental cash flow information</b>		
Non-cash transactions:		
Acquisition of OnCore excluding cash acquired	\$ 381,618	-

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)

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### 1. Nature of business and future operations

Tekmira Pharmaceuticals Corporation (the “Company”) is a Canadian biopharmaceutical business dedicated to discovering, developing, and commercializing a cure for patients suffering from chronic hepatitis B infection (“HBV”), a disease of the liver caused by hepatitis B virus (“HBV”). The Company is also developing a pipeline focused on advancing novel RNA interference therapeutics (RNAi) leveraging the Company’s expertise in Lipid Nanoparticle (“LNP”) technology.

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, 2014 and included in the Company’s 2014 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, 2015 and for all periods presented. The results of operations for the three months ended March 31, 2015 and March 31, 2014 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, 2014, except as described below.

#### *Principles of consolidation*

The Company has five wholly-owned subsidiaries: Protiva Biotherapeutics Inc. (“Protiva”), Protiva Biotherapeutics (USA) Inc. (“Protiva USA”), Protiva Agricultural Development Company Inc. (“PADCo”), OnCore Biopharma, Inc. (“OnCore”) and Enantigen Therapeutics, Inc. (“Enantigen”) – see note 3.

These condensed consolidated financial statements include the accounts of the Company and four of its wholly-owned subsidiaries, Protiva, Protiva USA, OnCore and Enantigen. 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 4(b).

#### *Replacement awards*

Replacement awards are share-based payment awards exchanged for awards held by employees of the acquiree. As part of the Company’s acquisition of OnCore, Tekmira shares were exchanged for OnCore shares subject to repurchase held by OnCore employees – see note 3.

As at the date of acquisition, the Company determined the total fair value of replacement awards and attributed a portion of the replacement awards to precombination service as part of the total acquisition consideration, and a portion to postcombination service, which is recognized as compensation expense over the expiry period of repurchase provision rights subsequent to the acquisition date.

***Goodwill and intangible assets***

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

Intangible assets consist of in-process research and development arising from the Company's acquisition of OnCore – see note 3. Intangible assets with finite useful lives are amortized on a straight-line basis over their estimated useful lives, which are the respective patent terms. Amortization begins when intangible assets with finite lives are put into use. If there is a major event indicating that the carrying value of intangible assets may be impaired, then management will perform an impairment test and if the recoverable value, based on undiscounted future cash flows, exceeds the carrying value, then such assets are written down to their fair values.

Goodwill represents the excess of purchase price over the value assigned to the net tangible and identifiable intangible assets of OnCore – see note 3. Goodwill has an indefinite accounting life and is therefore not amortized. Instead, goodwill is subject to a two-step impairment test on an annual basis, unless the Company identifies impairment indicators that would require earlier testing. The first step compares the fair value of the reporting unit to its carrying amount, which includes the goodwill. When the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not to be impaired, and the second step of the impairment test is unnecessary. If the carrying amount exceeds the implied fair value of the goodwill, the second step measures the amount of the impairment loss. If the carrying amount exceeds the fair value of the goodwill, an impairment loss is recognized equal to that excess.

***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, 2015, potential common shares of 2,917,441 (March 31, 2014 – 2,565,029) were excluded from the calculation of income per common share because their inclusion would be anti-dilutive.

***Fair value of financial instruments***

The Company measures certain financial instruments and other items at fair value.

To determine the fair value, the Company uses 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:

The Company used a discounted cash flow model to determine the fair value of the financial instrument, related to Monsanto's call option to acquire the equity or all of the assets of PADCo, as described in note 4(b). 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, 2015.

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements

(Unaudited)

(Expressed in US dollars – tabular amounts in thousands)

Contingent consideration is a liability assumed by the Company from its acquisition of OnCore – see note 3 and 8. The fair value as at March 31, 2015 is preliminary and the Company is currently undertaking a valuation assessment of the contingent consideration.

	Level 1	Level 2	Level 3	March 31, 2015
<b>Assets</b>				
Cash and cash equivalents	\$ 232,276	-	-	\$ 232,276
<b>Liabilities</b>				
Warrants	-	-	\$ 5,623	\$ 5,623
Contingent consideration	-	-	4,736	4,736
Financial instrument	-	-	-	-
Total	-	-	\$ 10,359	\$ 10,359

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

**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 in fair 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
Three months ended March 31, 2015	\$ 5,099	-	\$ (250)	\$ 1,223	\$ (449)	\$ 5,623

The change in fair value of warrant liability for the three months ended March 31, 2015 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, 2015 and at December 31, 2014 are as follows:

**Warrant Pricing assumptions**

	March 31, 2015	December 31, 2014
Dividend yield	0.00%	0.00%
Expected volatility	98.68%	85.22%
Risk-free interest rate	0.49%	1.00%
Expected average term (years)	0.6	0.5
Fair value of warrants outstanding (per warrant)	\$ 14.54	\$ 12.80
Aggregate fair value of warrants outstanding	\$ 5,623	\$ 5,099
Number of warrants outstanding	386,750	398,250

**Foreign currency translation and reporting currency****Functional currency**

The functional currency of the Company and its integrated subsidiaries (Protiva and Protiva USA) is the Canadian dollar. 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.

The local currency of OnCore (including its subsidiary, Enantigen) is the United States dollars which has been determined to be its functional currency, as it is the currency of the primary economic environment in which OnCore operates and expends cash. Foreign currency monetary assets and liabilities are translated into United States dollars at the exchange rate 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.

**Reporting currency**

The Company is using United States dollars as its reporting currency. All assets and liabilities are translated using the exchange rate at the balance sheet date. Revenues, expenses and other income (losses) are translated using the average rate for the period, except for large transactions, for which the exchange rate on the date of the transaction is used. Equity accounts are translated using the historical rate. The translation differences from the Company's functional currency to the Company's reporting currency of U.S. dollars are unrealized gains and losses; therefore, 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, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on our financial position or results of operations upon adoption.

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers (ASC 606). The standard is intended to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP and IFRS by creating a new Topic 606, Revenue from Contracts with Customers. This guidance supersedes the revenue recognition requirements in ASC 605, Revenue Recognition, and supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition – Construction-Type and Production-Type Contracts. The core principle of the accounting standard is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those good or services. The amendments should be applied by either (1) retrospectively to each prior reporting period presented; or (2) retrospectively with the cumulative effect of initially applying this ASU recognized at the date of initial application. In April 2015, the FASB voted to propose a deferral of the effective date of the ASU by one year. The new guidance would be effective for fiscal years beginning after December 15, 2017 instead of December 15, 2016, which for the Company means January 1, 2018. Entities are permitted to adopt in accordance with the original effective date if they choose. The Company has not yet determined the extent of the impact of adoption.

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

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

On January 11, 2015, the Company entered into a Merger Agreement to acquire 100% of the outstanding shares of OnCore and its wholly-owned subsidiary, Enantigen (see note 8). OnCore was a privately owned U.S. company focused on discovery, development and commercialization of an all-oral cure regimen for patients with HBV. The merger was approved by the Company’s shareholders on March 3, 2015 and consummated on March 4, 2015. OnCore’s results of operations and fair value of assets acquired and liabilities assumed are included in the Company’s consolidated financial statements from the date of acquisition.

The transaction has been accounted for using the acquisition method based on ASC 805, Business Combinations, on the basis that Tekmira is the acquirer, based on managements’ analysis and evaluation of the form of the acquisition, the relative contribution and rights of the predecessor groups post-closing, and the relative number of shares issued by the Company on acquisition of OnCore. Under the acquisition method, the consideration transferred is measured at the market price as at the acquisition date. The excess of the purchase price over the preliminary value assigned to the net assets acquired has been recorded as goodwill. Acquisition costs are expensed as incurred. The company recorded \$9,295,000 of acquisition costs for the three-months ended March 31, 2015.

The Company issued a total of 23,973,315 common shares with a total value of \$381,942,000 as consideration, which is comprised of 20,347,906 common shares issued without subjects and 3,625,412 common shares issued subject to repurchase provision. The fair value of the common shares issued without subjects has been determined to be the Company’s NASDAQ closing price of \$18.26 on the date prior to the acquisition’s consummation, March 4, 2015. The total fair value of the common shares issued subject to repurchase provision has been determined to be \$66,196,000, using the Black-Scholes pricing model with assumed risk-free interest rate of 0.74%, volatility of 81%, a zero dividend yield and an expected life of 4 years. Of the total fair value, \$9,262,000 has been attributed as pre-combination service and included as part of the total acquisition consideration. The post-combination attribution of \$56,934,000 will be recognized as compensation expense over the period of expiry of repurchase provision rights through to August 2018. The Company has included \$1,205,000 compensation expense related to the expiration of repurchase provision rights from the acquisition date through to March 31, 2015.

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements

(Unaudited)

(Expressed in US dollars – tabular amounts in thousands)

The Company has further reserved 184,332 shares for the future exercise of OnCore stock options. The total fair value of OnCore stock options has been determined to be \$3,287,000, using the Black-Scholes pricing model with the same assumption inputs used by the Company to determine the fair value of Tekmira options. Of the total fair value, \$1,127,000 has been attributed as pre-combination service and included as part of the total acquisition consideration. The post-combination attribution of \$2,160,000 will be recognized as compensation expense over the vesting period of the stock options through to December 2018. The Company has included \$44,000 compensation expense related to the vesting of OnCore stock options from the acquisition date through to March 31, 2015.

The aggregate fair value of consideration transferred to acquire OnCore's outstanding shares has been determined to be \$381,942,000, and has been attributed to preliminary fair values of the assets acquired and liabilities assumed as summarized in the following table.

Consideration paid:	
Common shares issued without subjects	\$ 371,553
Common shares issued subject to repurchase provision	9,262
Common shares issuable for OnCore stock options	1,127
	<u>\$ 381,942</u>
Identifiable assets acquired and liabilities assumed:	
Cash	\$ 324
Prepaid expenses and other assets	127
Accounts receivable	8
Property and equipment	147
Acquired intangible assets	389,652
Goodwill	155,865
Accounts payable and accrued liabilities	(3,580)
Other noncurrent liabilities (note 8)	(4,736)
Deferred income tax liability	(155,865)
Total purchase price allocation	<u>\$ 381,942</u>

A preliminary fair value of \$389,652,000 has been allocated to intangible assets.

Based on the preliminary fair values above, an amount of \$155,865,000 has been allocated to goodwill attributable to synergies expected to arise after the Company's acquisition of OnCore. Goodwill increased from the preliminary estimate of nil to \$155,865,000 due to revision in the estimate of deferred tax liability. The full amount of the goodwill has been assigned to Tekmira, which is the reporting unit management has determined the goodwill to be associated with. The goodwill is not expected to be deductible for tax purposes.

The above allocation to assets acquired and liabilities assumed are preliminary, as the Company is currently in the process of completing valuation assessments, including the calculation of fair values of separately identifiable intangible assets acquired. As the allocation is preliminary, it is subject to change and such changes could be material.

The amount of net loss of OnCore included in our consolidated statements of operations from the acquisition date, through the period ended March 31, 2015 was \$1,027,000. OnCore did not earn any revenues from the acquisition date through the period ended March 31, 2015.

The following table presents the unaudited pro forma results for the three months ended March 31, 2015 and 2014. The pro forma financial information combines the results of operations of Tekmira, Protiva, Protiva USA, OnCore and Enantigen as though the businesses had been combined as of the beginning of fiscal 2014 and 2015. The pro forma financial information is presented for informational purposes only, and is not indicative of the results of operations that would have been achieved if the merger had taken place at the beginning of fiscal 2014 and 2015. The pro forma financial information presented includes acquisition costs, amortization charges for acquired tangible assets, but does not include amortization charges for acquired intangible assets as these assets have not yet been put in use.

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements

(Unaudited)

(Expressed in US dollars – tabular amounts in thousands except per share amount)

	Three months ended March 31,	
	2015	2014
<b>Pro forma information</b>		
Gross Revenue	\$ 4,682	\$ 4,430
Loss from operations	(25,071)	(10,434)
Net loss	(19,054)	(22,483)
Basic and diluted loss per share	\$ (0.41)	\$ (0.51)

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

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

	Three months ended March 31	
	2015	2014
<b>Collaborations and contracts</b>		
DoD (a)	\$ 3,045	\$ 3,240
Monsanto (b)	248	243
BMS (d)	-	206
Dicerna (e)	227	-
Total research and development collaborations and contracts	3,520	3,689
<b>Licensing fees, milestone and royalty payments</b>		
Monsanto licensing fees and milestone payments (b)	842	545
Acuitas milestone payments (c)	-	150
Dicerna licensing fee (e)	263	-
Spectrum royalty payments (f)	57	46
Total licensing fees, milestone and royalty payments	1,162	741
<b>Total revenue</b>	<b>\$ 4,682</b>	<b>\$ 4,430</b>

The following table sets forth deferred collaborations and contracts revenue:

	March 31, 2015	December 31, 2014
DoD (a)	\$ 222	\$ 313
Monsanto current portion (b)	3,888	4,245
Dicerna current portion (e)	1,123	1,221
Deferred revenue, current portion	5,233	5,779
Monsanto long-term portion (b)	6,965	8,666
Dicerna long-term portion (e)	932	1,271
<b>Total deferred revenue</b>	<b>\$ 13,130</b>	<b>\$ 15,716</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.

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements

(Unaudited)

(Expressed in US dollars – tabular amounts in thousands)

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

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

Under the contract, the Company is reimbursed for costs incurred, including an allocation of overhead costs, and is paid an incentive fee. At the beginning of the fiscal year the Company estimates its labour and overhead rates for the year ahead. At the end of the year the actual labour and overhead rates are calculated and revenue is adjusted accordingly. The Company’s actual labour and overhead rates will differ from its estimated rates based on actual costs incurred and the proportion of the Company’s efforts on contracts and internal products versus indirect activities. Within minimum and maximum collars, the amount of incentive fee the Company can earn under the contract varies based on costs incurred versus budgeted costs. During the contractual period, incentive fee revenue and total costs are impacted by management’s estimate and judgments which are continuously reviewed and adjusted as necessary using the cumulative catch-up method. At March 31, 2015, 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, following the successful completion of milestones, is \$86,200,000. From inception of the contract to March 31, 2015, the Company had received \$17,500,000 in near term payments as outlined in the terms of the Agreements. The amounts received relate to research services and use of the Company’s technology over the option period, and are recognized as revenue on a straight-line basis over the option period.

Under the Agreements, the Company has established a wholly-owned subsidiary, PADCo. The Company has determined that PADCo is a variable interest entity (“VIE”); however, Monsanto is the primary beneficiary of the arrangement. PADCo was established to perform research and development activities, which have been funded by Monsanto in return for a call option to acquire the equity or all of the assets of PADCo. At any time during the option period, Monsanto may choose to exercise its option, in which case Monsanto would pay the Company an option exercise fee and would receive a worldwide, exclusive right to use the Company’s proprietary delivery technology in the field of agriculture. Monsanto may elect to terminate this option at their discretion. The Company retains all rights to therapeutics uses of all current intellectual property and intellectual property developed under the Agreements. The Company’s initial investment is not significant, and 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, 2015. There was no equity income or loss with respect to PADCo recorded for the quarter ended March 31, 2015.

**(c) License and collaboration with Alnylam Pharmaceuticals, Inc. (“Alnylam”) and Acuitas Therapeutics Inc. (“Acuitas”, formerly AlCana Technologies Inc.)****Milestone receipts and payments**

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 Alnylam initiating a Phase III trial for ALN-TTR02.

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

On June 21, 2013, the Company transferred manufacturing process technology to Ascleptis 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 Ascleptis triggers a \$5,000,000 milestone obligation from Alnylam to the Company. However, Alnylam has demanded a declaration that the Company has not yet met its milestone obligations. The Company disputes Alnylam’s position. To remedy this dispute, the Company and Alnylam have commenced arbitration proceedings as provided for under the agreement. The hearing date for this arbitration is currently set for the second week in May 2015. The Company has not recorded any revenue in respect of this milestone.

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

On May 10, 2010 the Company announced the expansion of its research collaboration with BMS. Under the new agreement, BMS uses small interfering RNA (“siRNA”) molecules formulated by the Company in LNP technology to silence target genes of interest. BMS is conducting the preclinical work to validate the function of certain genes and share the data with the Company. The Company could 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 was required to provide a pre-determined number of LNP batches over the four-year agreement. BMS had 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 was being recognized as the Company produces the related LNP batches.

The revenue earned for the three months ended March 31, 2014 was related to BMS batches shipped during the period. In August 2014, the agreement expired and both companies’ obligations under the agreement ended.

**(e) License and Development and Supply Agreement with Dicerna Pharmaceuticals, Inc. (“Dicerna”)**

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

The Company determined the deliverables under the Agreements included the rights granted, participation in the joint development committee, materials manufactured and other services provided, as directed under the joint development committee. The Company has determined that manufacturing services and other services provided have standalone value, as a separate statement of work is executed and invoiced for each manufacturing or service work order. The relative fair values are determined as a batch price or fee is estimated upon the execution of each work order, with actual expenditures charged at comparable market rates with embedded margins on each work order. Manufacturing work orders are invoiced at the time of execution of the work order, at the initiation of manufacture, and at the release of materials. Revenue from service work orders is recognized as the services are performed. The license and participation in the joint development committee have been determined by the Company to not have standalone value due to the uniqueness of the subject matter under the Agreements. Therefore, these deliverables are treated as one unit of accounting and recognized as revenue over the performance period, which the Company has estimated to be approximately 28 months as at March 31, 2015 (December 31, 2014 – 28 months).

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

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements

(Unaudited)

(Expressed in US dollars – tabular amounts in thousands)

**(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.

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, 2015, the Company recorded \$57,000 in Marqibo royalty revenue (three months ended March 31, 2014 - \$46,000). For the three months ended March 31, 2015, the Company accrued 2.5% in royalties due to TPC in respect of the Marqibo royalty earned by the Company – see note 8, contingencies and commitments.

**5. Accounts payable and accrued liabilities**

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

	March 31, 2015	December 31, 2014
Trade accounts payable	\$ 7,242	\$ 2,044
Research and development accruals	3,417	2,391
License fee accruals	-	250
Professional fee accruals	1,746	1,294
Deferred lease inducements	335	250
Payroll accruals	28	2,873
Other accrued liabilities	1,251	226
	<b>\$ 14,019</b>	<b>\$ 9,328</b>

**6. Financing**

On March 25, 2015, the Company announced that it had completed an underwritten public offering of 7,500,000 common shares, at a price of \$20.25 per share, representing gross proceeds of \$151,875,000. The Company also granted the underwriters a 30-day option to purchase an additional 1,125,000 shares for an additional \$22,781,000 to cover any over-allotments. The underwriters did not exercise the option. The cost of financing, including commissions and professional fees, was \$9,700,000, resulting in net proceeds of \$142,175,000.

**7. 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, 2015 was the accounts receivable balance of \$4,564,000 (December 31, 2014 - \$1,903,000).

All accounts receivable balances were current as at March 31, 2015 and at December 31, 2014.

**8. 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, 2015, a cumulative contribution of \$2,923,000 (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, 2015, the Company earned royalties on Marqibo sales in the amount of \$57,000 (three months ended March 31, 2014 – \$46,000) (see note 4(f)), resulting in \$1,000 being recorded by the Company as royalty payable to TPC (March 31, 2014 - \$1,000). The cumulative amount paid or accrued up to March 31, 2015 was \$1,000, resulting in the contingent amount due to TPC being \$2,916,000 (C\$3,694,000).

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

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

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

Under the license agreement the Company paid Marina an upfront fee of \$300,000 during the year ended December 31, 2012. A further license payment of \$200,000 was paid in 2013 and the Company will make milestone payments of up to \$3,250,000 and royalties on each product developed by the Company that uses Marina's UNA technology. The payments to Marina are expensed to research, development, collaborations and contracts expense.

Effective August 9, 2013, Marina's UNA technology was acquired by Arcturus Therapeutics, Inc. ("Arcturus") and the UNA license agreement between the Company and Marina was assigned to Arcturus. The terms of the license are otherwise unchanged. On December 22, 2014, the Company received clearance from Health Canada to conduct a Phase I Clinical Study with TKM-HBV, which utilizes Arcturus' UNA technology. This triggered the accrual of \$250,000 as at December 31, 2014 related to the milestone payable to Arcturus upon the dosing of first subject in a Phase I clinical trial of TKM-HBV, which occurred on January 21, 2015.

**Arbitration with the University of British Columbia ("UBC")**

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

On November 10, 2014, UBC filed a notice of arbitration against the Company and on January 16, 2015, filed a Statement of Claim, which alleges entitlement to \$3,500,000 in allegedly unpaid royalties based on publicly available information, and an unspecified amount based on non-public information. UBC also seeks interest and costs, including legal fees. The Company is currently disputing UBC's allegations, and no dates have been scheduled for this arbitration. The Company has not recorded an estimate of the possible loss associated with this arbitration, due to the uncertainties related to both the likelihood and amount of any possible loss or range of loss. Costs related to the arbitration have been recorded by the Company as incurred.

**Contingent consideration from OnCore acquisition of Enantigen and License Agreements between Enantigen and Blumberg and Drexel**

In October 2014, OnCore acquired all of the outstanding shares of Enantigen pursuant to a stock purchase agreement. Through this transaction, OnCore acquired a HBV surface antigen secretion inhibitor program and a capsid assembly inhibitor program, each of which are now assets of Tekmira, following the Company's merger with OnCore – see note 3.

Under the stock purchase agreement, OnCore agreed to pay up to a total of \$21,000,000 to Enantigen's selling stockholders upon the achievement of certain triggering events related to Enantigen's two programs in pre-clinical development related to HBV therapies. The first triggering event is the enrollment of first patient in Phase 1b clinical trial in HBV patients, which the Company does not expect to occur in the next twelve-month period.

The regulatory milestone payments have an estimated fair value of approximately \$4,736,000 and have been treated as contingent consideration payable in the preliminary purchase price allocation (note 3), based on information available including OnCore's valuation at the date of its acquisition of Enantigen, using a probability weighted assessment of the likelihood the milestones would be met and the estimated timing of such payments, and then the potential contingent payments were discounted to their present value using a probability adjusted discount rate of 17.7% (reflecting the early stage nature of the development program, time to complete the program development, and overall biotech indices).

As part of its acquisition of OnCore on March 4, 2015 as described in note 3, the other non-current liabilities assumed by the Company included the contingent consideration of \$4,736,000 related to OnCore's acquisition of Enantigen. The Company is currently undertaking valuation assessments of assets acquired and liabilities assumed from OnCore, which includes a valuation assessment of the contingent consideration.

**Drexel and Blumberg**

In February 2014, OnCore entered into a license agreement with Blumberg and Drexel that granted an exclusive, worldwide, sub-licensable license to three different compound series: cccDNA inhibitors, capsid assembly inhibitors and HCC inhibitors.

In partial consideration for this license, OnCore paid a license initiation fee of \$150,000 and issued warrants to Blumberg and Drexel. Under this license agreement, OnCore also agreed to pay up to \$3,500,000 in development and regulatory milestones per licensed compound series, up to \$92,500,000 in sales performance milestones per licensed product, and royalties in the mid-single digits based upon the proportionate net sales of licensed products in any commercialized combination. The Company is obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from the sub-licensees, subject to customary exclusions.

In November 2014, OnCore entered into an additional license agreement with Blumberg and Drexel pursuant to which it received an exclusive, worldwide, sub-licensable license under specified patents and know-how controlled by Blumberg and Drexel covering epigenetic modifiers of cccDNA and STING agonists. In consideration for these exclusive licenses, OnCore made an upfront payment of \$50,000. Under this agreement, the Company will be required to pay up to \$1,000,000 for each licensed product upon the achievement of a specified regulatory milestone and a low single digit royalty, based upon the proportionate net sales of compounds covered by this intellectual property in any commercialized combination. The Company is also obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from its sub-licensees, subject to exclusions.

**Research Collaboration and Funding Agreement with Blumberg**

In October 2014, OnCore entered into a research collaboration and funding agreement with Blumberg under which the Company will provide \$1,000,000 per year of research funding for three years, renewable at our option for an additional three years, for Blumberg to conduct research projects in HBV and liver cancer pursuant to a research plan to be agreed upon by the parties. Blumberg has exclusivity obligations to Tekmira with respect to HBV research funded under the agreement. In addition, we have the right to match any third party offer to fund HBV research that falls outside the scope of the research being funded under the agreement. Blumberg has granted us the right to obtain an exclusive, royalty bearing, worldwide license to any intellectual property generated by any funded research project. If the Company elects to exercise our right to obtain such a license, the Company will have a specified period of time to negotiate and enter into a mutually agreeable license agreement with Blumberg. This license agreement will include the following pre negotiated upfront, milestone and royalty payments: an upfront payment in the amount of \$100,000; up to \$8,100,000 upon the achievement of specified development and regulatory milestones; up to \$92,500,000 upon the achievement of specified commercialization milestones; and royalties at a low single to mid-single digit rates based upon the proportionate net sales of licensed products from any commercialized combination.

**TEKMIRA PHARMACEUTICALS CORPORATION**

Notes to condensed consolidated financial statements

(Unaudited)

(Expressed in US dollars – tabular amounts in thousands)

**NeuroVive Pharmaceutical AB (“NeuroVive”)**

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

In partial consideration for this license, OnCore paid NeuroVive a license fee of \$1,000,000. The Company is also obligated to pay up to \$47,000,000 in clinical development and regulatory milestones per indication and up to \$102,500,000 in sales performance milestones per licensed product and indication. If we are acquired by a third party in a transaction that meets certain criteria, then we or our acquiror will be obligated to pay all remaining development, regulatory and sales milestone payments, regardless of whether the applicable milestone events have been achieved, for each licensed product that entered clinical development before such acquisition. We agreed to pay NeuroVive tiered royalties in the mid-single to low-double digit range based upon the proportionate gross sales of patented licensed products from any commercialized combination. If the Company terminates this license agreement in its entirety for convenience prior to the first commercial sale of any licensed product, we will be obligated to pay NeuroVive a termination fee of \$2,000,000.

**Cytos Biotechnology Ltd (“Cytos”)**

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

In partial consideration for this license, upon closing of the Cytos Agreement, the Company will be obligated to pay Cytos up to a total of \$67,000,000 for each of the six licensed compound series upon the achievement of specified development and regulatory milestones; for hepatitis and each additional licensed viral infection, up to a total of \$110,000,000 upon the achievement of specified sales performance milestones; and tiered royalty payments in the high-single to low-double digits, based upon the proportionate net sales of licensed products in any commercialized combination.

## 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, 2014 and our unaudited condensed consolidated financial statements for the three month period ended March 31, 2015. 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. 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) and Hepatitis B virus product development programs; the effects of Tekmira's products on the treatment of chronic Hepatitis B infection, cancer, infectious disease, alcohol use disorder, and other diseases; the potential of RNAi to generate a new class of therapies; the discovery, development and commercialization of a cure for HBV; Tekmira's RNAi pipeline and the advancement thereof with a focus on realizing the value of these assets; a rolling Phase II clinical program for HBV, using an iterative process of combination drug candidates, leading into Phase III clinical trials and ultimately regulatory filings for marketing approval; the research benefits of the collaboration with The Baruch S. Blumberg Institute, including expansion of Tekmira's HBV pipeline through internal development, acquisitions and in-licenses; the results of a TKM-HBV Phase I clinical trial in the second half of 2015; completion of studies and filing an IND or equivalent for OCB-030 by year end 2015; the initiation of CYT-003 preclinical studies to demonstrate proof of concept in the first half of 2015, and progression straight into patients thereafter; filing an IND with the FDA or an equivalent filing with foreign regulatory authorities and initiating Phase 1 studies with one of the capsid assembly inhibitors in 2016; filing an IND or its equivalent in another territory for a lead compound for surface antigen secretion inhibitors in 2016; identifying orally active small molecule human STING agonists that possess the desired characteristics to progress into human clinical studies; filing an IND with the FDA or its equivalent in another territory for cccDNA formation inhibitors in 2017; non-HBV clinical trial milestones, including final data from GI-NET and ACC studies in the second half of 2015; the Phase I/II clinical trial with TKM-PLK1 enrolling patients with advanced HCC; completion of the necessary clinical work to be in a position to file on the development of TKM-Ebola under the "Animal Rule"; Fast Track designation from the US FDA for the development of TKM-Ebola; the partial clinical hold on TKM-Ebola by the FDA, Tekmira's response to the partial clinical hold and expectations of resolving the matter; the intention to resume the TKM-Ebola Phase I clinical trial in the second quarter of 2015; results of the Phase II trial with TKM-Ebola-Guinea in the second half of 2015; continued generation of preclinical data for non-HBV preclinical candidates; potential partnering or external funding opportunities to maximize the value of TKM-ALDH; new product development and partnering opportunities in LNP technology; the expected efficacy of Tekmira's various HBV therapies; Tekmira's continued commitment to its non-HBV assets, both clinical and preclinical, and realization of value for these non-HBV assets; the expected efficacy of Tekmira's various non-HBV products; the continuation of LNP technology as an important cornerstone of Tekmira's business development activities, and the expected yield from the latest generation of the platform; the quantum and triggering of payments to our partners, including payments to Dicerna, Cytos, Blumberg, Drexel, Enantigen's selling stockholders and NeuroVive; future changes in the fair value of our warrant liability; the expected return from strategic alliances, licensing agreements, and research collaborations, such as the potential value of a transaction with the DoD, Monsanto Company and a grant from the U.S. National Institutes of Health; Tekmira's intent to retain earnings, if any, to finance the growth and development of their business and not to pay dividends or to make any other distributions in the near future; arbitration proceedings with Alnylam Pharmaceuticals, Inc. in connection with ALN-VSP; arbitration proceedings with the University of British Columbia in connection with alleged unpaid royalties; anticipated royalty receipts; statements with respect to revenue and expense fluctuation and guidance; and the quantum and timing of potential funding.

With respect to the forward-looking statements contained in this 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 chronic Hepatitis B infection, cancer, 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; assumptions related to Tekmira's share price volatility, expected lives of warrants and warrant issuances and/or exercises; 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.

### OVERVIEW

Tekmira Pharmaceuticals Corporation ("Tekmira", "we", "us", and "our") is a publicly traded industry-leading therapeutic solutions company focused on discovering, developing and commercializing a cure for patients suffering from chronic hepatitis B (HBV) infection, a disease of the liver caused by hepatitis B. We have five wholly owned subsidiaries, Protiva Biotherapeutics Inc. ("Protiva"), Protiva Agricultural Development Company Inc. ("PADCO"), Protiva Biotherapeutics (USA) Inc. ("Protiva USA"), OnCore Biopharma, Inc. ("OnCore") and Enantigen Therapeutics, Inc. ("Enantigen"). Unless stated otherwise or the context otherwise requires, references herein to "Tekmira", "we", "us" and "our" refer to Tekmira Pharmaceuticals Corporation, and, unless the context requires otherwise, one or more subsidiaries through which we conduct business.

In March of 2015, Tekmira completed a merger whereby OnCore Biopharma, Inc. (“OnCore”) became a wholly owned subsidiary of Tekmira. The transaction was approved by 99.5% of votes cast by Tekmira shareholders voting at a Special Meeting held on Tuesday, March 3, 2015, and representing 51.2% of Tekmira’s common shareholders. In connection with the transaction, Tekmira issued 23,973,315 common shares to the shareholders of OnCore in exchange for their OnCore securities, and OnCore became a wholly-owned subsidiary of Tekmira.

Together with our subsidiaries, we have an industry leading pipeline focused on finding a cure for chronic HBV infection. This HBV pipeline consists of nine drugs and drug candidates, with eight unique mechanisms of action. Our unique strategy is to target the three pillars we believe are necessary to deliver an HBV cure, including: (i) suppressing HBV viral replication, (ii) restoring host response by suppressing HBV surface antigen (HBsAg) or activating/stimulating the host immune system directed at HBV, and (iii) eliminating covalently closed circular DNA (cccDNA), the reservoir of viral genomic material.

We believe, our chances for success in HBV are increased, and risk is mitigated, by having a portfolio of assets targeting these three strategies. More importantly, we believe combination therapies are the key to HBV treatment and a potential cure, and clinical development can be accelerated when multiple components of a combination therapy regimen are controlled by the same company. This is why, together with our subsidiaries, we have retained exclusive worldwide development and commercialization rights to all of our drug candidates and programs in HBV.

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

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

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

Because LNP can enable a wide variety of nucleic acid triggers, including mRNA, we continue to see new product development and partnering opportunities based on what we believe is our industry-leading delivery expertise. We remain committed to continuing to support the work of our product development partners and intellectual property licensees with the goal of realizing the short-term and long term financial potential of these partnerships.

#### ***Voluntary Delisting from the Toronto Stock Exchange (TSX)***

Our common shares were voluntarily delisted from the Toronto Stock Exchange (“TSX”) as of the close of business on Tuesday, March 3, 2015. Prior to the voluntary delisting, our common shares traded on the TSX under the symbol “TKM”.

#### ***Public Offering of Common Shares***

On March 25, 2015, we completed an underwritten public offering of 7.5 million common shares at a price of US\$20.25 per share for aggregate gross proceeds of US\$151.9 million before deducting underwriting discounts and commissions and other offering expenses. We also granted the underwriters a 30-day option to purchase up to an additional 1.125 million common shares, which, if exercised, would have resulted in additional gross proceeds of US\$22.8 million. The 30-day option was not exercised and is no longer available.

#### **Our Product Candidates**

We have, what we believe, is an industry-leading pipeline focused on curing HBV. Our belief is that to achieve an HBV cure, a combination of products that affect the main drivers of HBV need to be utilized. Specifically, this means that to be successful, we believe we need to have products that address HBV persistence — in antiviral replication, immune reactivation and the presence of cccDNA.

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

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

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

## **HBV Product Pipeline**

### **TKM-HBV**

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

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

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

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

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

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

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

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

#### ***Cyclophilin Inhibitor — OCB-030***

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

#### ***TLR9 Agonist (CYT-003)***

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

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

#### ***Capsid Assembly Inhibitors***

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

#### ***Surface Antigen Secretion Inhibitors***

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

## **STING Agonists**

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

## **cccDNA Formation Inhibitors**

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

## **cccDNA Epigenetic Modifiers**

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

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

We believe there is significant value in our non-HBV assets and we remain committed to maximizing this value. We intend to continue our clinical programs to the appropriate stage to support this objective. We also remain interested in advancing our ongoing metabolic and rare disease preclinical programs to maximize their value, and in continuing to leverage our knowledge and expertise in LNP technology, where applicable.

## **TKM-PLK1**

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

## **GI-NET and ACC**

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

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

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

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

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

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

## **HCC**

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

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

## **TKM-Ebola**

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

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

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

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

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

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

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

In April 2015, the FDA notified us that the partial clinical hold had been modified to permit repeat dosing of healthy volunteers at a dose of 0.24 mg/kg/day. However, the IND remains on partial clinical hold with regard to doses above 0.24 mg/kg/day in healthy volunteers.

We intend to resume the TKM-Ebola Phase I clinical trial in Q2. The study is a randomized, single-blind, placebo-controlled study involving repeat dosing of a single cohort of healthy volunteers. Each subject will receive daily doses of 0.24mg/kg of TKM-Ebola or placebo for up to seven days. TKM-Ebola will be administered without steroid pre-medication. Results from the study are expected in the second half of 2015

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

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

In October 2014, the genomic sequence of the virus responsible for the recent outbreak in West Africa was determined from several viral isolates and the strain was called Ebola-Guinea. The results of this work were published in the *New England Journal of Medicine* (Baize S., et al. Emergence of Zaire Ebola Virus Disease in Guinea; *New England Journal of Medicine*, October 9, 2014, vol. 371 No. 15). In November 2014, the nomenclature for the strain was further refined and is now known as Ebola-Makona. (Kuhn, JH., et al. Nomenclature- and Database-Compatible Names for the Two Ebola Virus Variants that Emerged in Guinea and the Democratic Republic of the Congo in 2014; *Viruses*, Nov 24, 2014, 6, 4760-4799). We rapidly developed a modified RNAi therapeutic to target the strain responsible for the epidemic in West Africa. The new product, TKM-Ebola-Guinea, is designed to exactly match the genomic sequence of the Makona strain with two RNAi molecule triggers.

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

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

In April 2015, we, along with our collaborators at the University of Texas Medical Branch (UTMB) at Galveston, USA, published positive Ebola treatment data in the journal *Nature* (Thi EP., et al. Lipid Nanoparticle siRNA Treatment of Ebola-Virus-Makona-Infected Nonhuman Primates; *Nature*, April 22, 2015). Data demonstrated 100% survival of nonhuman primates previously infected with the West African Makona strain of Ebola virus even when treatment did not begin until three days after viral exposure a time point at which animals were five to six days away from death. These efficacy results are comparable to those obtained with TKM-Ebola, which also demonstrated up to 100% protection from an otherwise lethal dose of the virus.

### **Non-HBV Preclinical Candidates (LNP enabled)**

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

### **TKM-Marburg**

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

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

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

#### **TKM-HTG**

The most advanced program in our metabolic product platform is TKM-HTG targeted towards the rapid and sustained reductions of triglycerides to address the limitations of existing Hypertriglyceridemia (HTG) treatments. Hypertriglyceridemia is a type of dyslipidemia where there are high blood levels of triglycerides. Patients with severe HTG, (classified as triglyceride levels greater than 1000 mg/dL) are at risk of acute pancreatitis as well as the risk of cardiovascular disease. Approximately one million adults in the US and 18 million worldwide suffer from severe HTG. (*National Health and Nutrition Examination Survey, Centre for Disease Control, NHANES 2003-2004 data*). High triglyceride levels are medically linked to an increased risk of cardiovascular disease, fatty liver disease, insulin resistance and pancreatitis.

Currently in preclinical studies, TKM-HTG is a dual component RNAi investigational therapeutic that simultaneously targets two important genes - Apolipoprotein C3 (ApoC3) and Angiopoietin like protein 3 (ANGPTL3) – which are expressed in the liver and are known to play a significant and complementary role in triglyceride metabolism. The most important findings obtained in our pre-clinical studies are the super-additive effects on plasma triglycerides by silencing ApoC3 and ANGPTL3 genes in a well validated model of HTG. We presented this and related data at the Keystone Symposia Conference: Liver Metabolism and Nonalcoholic Fatty Liver Diseases, in Whistler, Canada, March 22-27, 2015.

In our preclinical studies, we employed two well validated models of HTG including a human ApoC3 transgenic (Tg) mouse model and a high-fat containing diet fed mouse model. In the human ApoC3-Tg mouse model, silencing of ApoC3 gene was accomplished, which resulted in rapid, potent and sustained plasma triglyceride (TG) lowering, with the lowest effective dose at 0.03 mg/kg. Duration of gene silencing and TG lowering effects from a single administration of the ApoC3 RNAi trigger lasted for more than two weeks. In addition, beneficial cholesterol profile changes and significant glucose lowering effects were also observed. In the high-fat containing diet fed mouse model, silencing of both the ApoC3 and ANGPTL3 genes, resulted in super-additive plasma triglycerides lowering effects. Doses of 0.125 mg/kg + 0.125 mg/kg in combination were superior to either 0.25 mg/kg or 0.5 mg/kg for the individual RNAi-triggers.

#### **TKM-ALDH**

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

#### **Ongoing Advancements in LNP Technology**

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

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

## **Technology, Product Development and Licensing Agreements**

In the field of RNAi therapeutics, we have licensed our LNP delivery technology to Alnylam, and to Merck & Co., Inc. (which has since been acquired by Alnylam). Alnylam has provided royalty bearing access of our LNP delivery technology to some of its partners. We have a licensing and collaboration agreement with Dicerna Pharmaceuticals, Inc. In addition, we have ongoing research relationships with Monsanto, the US NIH the US DoD - JPM-MCS-BDTX and other undisclosed pharmaceutical and biotechnology companies. Outside the field of RNAi, we have a legacy licensing agreement with Spectrum Pharmaceuticals, Inc.

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

### **Strategic Alliances**

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

Alnylam has a license to use our Intellectual Property (IP) to develop and commercialize products and may only grant access to our LNP technology to its partners if it is part of a product sublicense. Alnylam’s license rights are limited to patents that we have 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 low single digit royalties as Alnylam’s LNP-enabled products are commercialized. Alnylam currently has three LNP-based products in clinical development: ALN-TTR02 (patisiran), ALN-VSP, and ALN-PCS02.

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

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

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

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

In April 2015, Alnylam announced positive data from the ongoing open-label study with patisiran which demonstrated continued evidence for possible halting of neuropathy progression after the first 12 months of treatment. In addition, patisiran treatment showed robust mean knockdown of serum TTR of up to 88%. Alnylam's ongoing OLE study is an open-label, multi-center trial designed to evaluate the long-term safety and tolerability of patisiran administration in FAP patients that were previously enrolled in a Phase 2 study.

The patisiran program represents the most clinically advanced application of our LNP delivery technology. Furthermore, Alnylam’s results demonstrate that multi-dosing with our LNP has been well-tolerated with treatments out to 17 months.

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

#### **Acuitas Therapeutics Inc. (“Acuitas”)**

Consistent with the terms of the settlement agreement signed in November 2012, we finalized and entered a cross-license agreement with Acuitas (formerly AlCana Technologies, Inc.) in December 2013. The terms of the cross-license agreement provide Acuitas with access to certain of our earlier IP generated prior to April 2010. At the same time, the terms provide us with certain access to Acuitas’ technology and licenses in the RNAi field, along with a percentage of each milestone and royalty payment with respect to certain products. Acuitas has agreed that it will not compete in the RNAi field for a period of five years, ending in November 2017.

## **Spectrum Pharmaceuticals, Inc. (“Spectrum”)**

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

## **Monsanto Company (“Monsanto”)**

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

## **Marina Biotech, Inc. (“Marina”) / Arcturus Therapeutics, Inc. (“Arcturus”)**

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

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

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

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

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

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

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

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

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

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

### **Dicerna Pharmaceuticals, Inc. ("Dicerna")**

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

### **Cytos Biotechnology Ltd ("Cytos")**

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

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

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

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

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

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

### **License Agreements between Enantigen ("Enantigen") and Blumberg and Drexel**

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

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

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

#### **Research Collaboration and Funding Agreement with Blumberg**

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

#### **NeuroVive Pharmaceutical AB ("NeuroVive")**

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

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

#### **CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

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

We classify warrants in our consolidated balance sheet as liabilities and revalue them at each balance sheet date. Any change in valuation is recorded in our statement of operations. We use the Black-Scholes pricing model to value the warrants. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment. A small change in the estimates used may cause a relatively large change in the estimated valuation. Due to ongoing changes in our business and general stock market conditions, we continuously assess our warrant fair value assumptions. We adjust the estimated expected life as appropriate, based on the pattern of exercises of our warrants. As at December 31, 2014, for the purpose of calculating the fair value, the expected life of outstanding warrants was three months for warrants expiring in June 2016, and nine months for warrants expiring in February 2017. Based on the pattern of decreasing exercises of warrants, we have increased the expected life to nine months and twelve nine months for outstanding warrants expiring in June 2016 and February 2017, respectively, effective January 1, 2015. The remaining expected life is six months and nine months for outstanding warrants expiring in June 2016 and February 2017, respectively, as at March 31, 2015.

For the three month period ended March 31, 2015, we recorded a charge to earnings due to the increase in fair value of warrant liability of \$1,223,000 as compared to a charge of \$1,188,000 for this period if we had used the previous expected life assumptions.

**Business combination** / The purchase price allocation is a critical accounting estimates due to the many assumptions that are required to calculate the fair value of assets acquired and liabilities assumed during a business combination.

We account for our business combination using the acquisition method. Under this method, estimates we make to determine the fair values of assets acquired and liabilities assumed include judgments in our determinations of acquired intangible assets and assessment of the fair value of existing property and equipment. Assumed liabilities can include other contingency reserves existing at the time of acquisition. Goodwill is recognized as of the acquisition date as the excess of the purchase price over the estimated fair values of net identifiable assets acquired and liabilities assumed at their acquisition date. Acquisition related expenses are separately recognized from business combination and are expensed as incurred.

When establishing fair values, we make significant estimates and assumptions, especially with respect to intangible assets. Intangible assets acquired and recorded by us may include patents, intellectual property, and in-process research and development. Estimates include, but are not limited to the forecasting of future cash flows and discount rates. Our estimates for the fair values of assets acquired and liabilities assumed are preliminary for the period ended March 31, 2015. We are currently undertaking a valuation assessment by engaging a third-party firm to assist us to determine the fair values. Our preliminary estimates of fair values are based upon assumptions that we believe to be reasonable, but which are inherently uncertain and unpredictable; therefore, actual results may differ from estimates impacting our earnings.

There are no other changes to our critical accounting policies and estimates from those disclosed in our annual MD&A contained in our 2014 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 May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers (ASC 606). The standard is intended to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP and IFRS by creating a new Topic 606, Revenue from Contracts with Customers. This guidance supersedes the revenue recognition requirements in ASC 605, Revenue Recognition, and supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition – Construction-Type and Production-Type Contracts. The core principle of the accounting standard is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those good or services. The amendments should be applied by either (1) retrospectively to each prior reporting period presented; or (2) retrospectively with the cumulative effect of initially applying this ASU recognized at the date of initial application. In April 2015, the FASB voted to propose a deferral of the effective date of the ASU by one year. The new guidance would be effective for fiscal years beginning after December 15, 2017 instead of December 15, 2016, which for the Company means January 1, 2018. Entities are permitted to adopt in accordance with the original effective date if they choose. We have not yet determined the extent of the impact of adoption.

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

## SUMMARY OF QUARTERLY RESULTS

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

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

	Q1 2015	Q4 2014	Q3 2014	Q2 2014	Q1 2014	Q4 2013	Q3 2013	Q2 2013
<b>Revenue</b>								
Collaborations and contracts:								
DoD	\$ 3.0	\$ 2.8	\$ 1.5	\$ 0.9	\$ 3.2	\$ 2.6	\$ 2.8	\$ 2.4
Monsanto	0.3	0.3	0.3	0.2	0.3	—	—	—
Dicerna	0.2	0.3	0.2	—	—	—	—	—
Other	—	—	1.6	—	0.2	(0.1)	0.1	0.4
	3.5	3.4	3.6	1.1	3.7	2.6	2.9	2.8
Alnylam milestone payments	—	—	—	—	0.2	5.0	—	—
Monsanto licensing fees and milestone payments	0.8	0.9	0.7	0.6	0.5	—	—	—
Dicerna licensing fee	0.3	—	—	—	—	—	—	—
Spectrum milestone and royalty payments	0.1	0.1	0.1	0.0	0.0	0.0	—	—
<b>Total revenue</b>	<b>4.7</b>	<b>4.4</b>	<b>4.4</b>	<b>1.8</b>	<b>4.4</b>	<b>7.6</b>	<b>2.9</b>	<b>2.8</b>
Expenses	(22.7)	(15.1)	(11.2)	(11.2)	(10.4)	(9.9)	(6.6)	(5.9)
Other income (losses)	6.0	4.5	(1.8)	3.3	(12.0)	(0.2)	(2.2)	0.1
<b>Net loss</b>	<b>(12.0)</b>	<b>(6.2)</b>	<b>(8.6)</b>	<b>(6.1)</b>	<b>(18.0)</b>	<b>(2.6)</b>	<b>(5.9)</b>	<b>(3.0)</b>
<b>Basic and diluted net loss per share</b>	<b>\$ (0.40)</b>	<b>\$ (0.27)</b>	<b>\$ (0.39)</b>	<b>\$ (0.28)</b>	<b>\$ (0.91)</b>	<b>\$ (0.15)</b>	<b>\$ (0.41)</b>	<b>\$ (0.21)</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 and milestone receipts.

In Q3 2010 we signed a contract with the DoD to develop TKM-Ebola and have since incurred significant program costs related to equipment, materials and preclinical and clinical studies. These costs are included in our research, development, collaborations and contracts expenses. These costs are fully reimbursed by the DoD, and this reimbursement amount is recorded as revenue. DoD revenue from the TKM-Ebola program also compensates us for labor and overheads and provides an incentive fee. As described in our critical accounting policies in our Annual Report, we estimate the labor and overhead rates to be charged under our TKM-Ebola contract and update these rate estimates throughout the year. In April 2014, we signed a contract modification to increase the stage one targeted funding by \$2.1 million to \$43.8 million. The additional funding is to compensate us for unrecovered costs related to the temporary stop-work period that occurred in 2012 and to provide additional overhead funding should it be required. In Q1 2014, we earned \$3.2 million in DoD revenue, due partially to an increase in activity as we moved into a Phase I Clinical Trial. Also, as a result of the contract modification, we now expect to complete the initial stage of the contract closer to budget, which increases our estimate of total incentive fee to be earned under the contract and the amount we have earned to date. In Q2 2014, we earned \$0.9 million in DoD revenue due to lower contract activity as our clinical trial data was with the FDA for review. DoD revenue increased in Q3 2014 with an increase in activity as we prepared a response to the FDA's partial clinical hold on our Phase I Clinical Trial. In October 2014, the DoD exercised a contract option adding \$7.0 million to the contract for the scale-up and manufacture of TKM-Ebola-Guinea, our product targeting the Ebola-Makona (formerly known as Ebola-Guinea) strain responsible for the current outbreak in West Africa. DoD revenue increased in Q4 2014 and Q1 2015 as we purchased materials and manufactured TKM-Ebola-Guinea.

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

In November 2014, we signed a License Agreement and a Development and Supply Agreement with Dicerna for the use of our proprietary delivery technology and related technology intended to develop, manufacture, and commercialize products related to treatment of PH1. In Q4 2014, we received an upfront payment of \$2.5 million, which is being recognized over the period over which we provide services to Dicerna, estimated to complete in Q1 2017. In Q1 2015, we recognized collaboration revenue of \$0.2 million earned on materials manufactured and services provided to Dicerna.

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

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

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

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

Our expenses have increased in the past eight quarters due to an increase in our research and development activities as we seek to move more products into the clinic. In Q3 2013, we initiated a Phase I/II Clinical Trial for TKM-PLK1 in patients with GI-NET or ACC. In Q1 2014, we dosed the first subject in human clinical trials of TKM-Ebola. In Q2 2014, we initiated a Phase I/II Clinical Trial for TKM-PLK1 in patients with HCC. In Q4 2014, we filed a Canadian Clinical Trial Application (CTA) for TKM-HBV and received clearance to conduct a Phase I Clinical Trial, as well as initiated manufacturing of TKM-Ebola-Guinea for emergency use in West Africa – see overview. In Q1 2015, we initiated Phase I Clinical Trial for TKM-HBV and incurred significant material costs related to the TKM-Ebola-Guinea contract with the DoD. In addition, we incurred \$9.3 million in costs for professional fees related to completing the merger with OnCore, as well as \$1.2 million of incremental non-cash compensation expense related to the expiry of repurchase rights on shares issued as part of the consideration paid for the merger with OnCore (refer to notes to the financial statements). We also continue to incur research and development expenses related to identifying new targets.

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

In Q1 2015, we recorded \$7.0 million foreign exchange gain, due to the strengthening of U.S. dollar against Canadian dollar by 9% in the period.

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

## RESULTS OF OPERATIONS

The following summarizes the results of our operations for the periods shown, in thousands except per share data:

	Three months ended March 31,	
	2015	2014
Total revenue	\$ 4,682	\$ 4,430
Operating expenses	22,688	10,388
Loss from operations	(18,006)	(5,958)
Net loss	(11,989)	(17,984)
Basic and diluted loss per share	(0.40)	(0.91)

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

	Three months ended March 31,			
	2015	% of Total	2014	% of Total
DoD	\$ 3,045	65 %	\$ 3,240	73 %
Monsanto	248	5 %	243	5 %
BMS	—	0 %	206	5 %
Dicerna	227	5 %	—	0 %
<b>Total collaborations and contracts revenue</b>	<b>3,520</b>	<b>75 %</b>	<b>3,689</b>	<b>83 %</b>
Monsanto licensing fee and milestone payments	842	18 %	545	12 %
Acuitas milestone payment	—	0 %	150	3 %
Dicerna licensing fee	263	6 %	—	0 %
Spectrum milestone and royalty payments	57	1 %	46	1 %
<b>Total revenue</b>	<b>\$ 4,682</b>		<b>\$ 4,430</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 was first budgeted at \$34.7 million and later increased to \$43.8 million. This stage one funding is for the development of TKM-Ebola, including, completion of preclinical development, filing an IND application with the FDA and completing a Phase I human safety clinical trial. The DoD has the option of extending the contract beyond the initial funding period to support the advancement of TKM-Ebola through to the completion of clinical development and FDA approval. Based on the contract’s budget, this would provide the Company with up to \$140 million in funding for the entire program.

In October 2014, the DoD exercised an option valued at \$7.0 million, awarded to us to manufacture TKM-Ebola-Guinea targeting the Ebola-Makona (formerly known as Ebola-Guinea) strain responsible for the current outbreak in West Africa.

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

DoD revenues and related contract expenses were slightly lower in Q1 2015 as compared to Q1 2014. We moved into Phase I clinical trials in Q1 2014. In Q1 2015, we remained on partial clinical hold for TKM-Ebola, but incurred costs and recorded revenue for the manufacture of TKM-Ebola-Guinea for use in West Africa.

#### *Monsanto revenue*

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

In January 2014, we received \$14.5 million, of which \$4.5 million relates to research services and \$10.0 million for the use of our technology. In June and October 2014, we received payments of \$1.5 million each, following the completion of specified program developments. We are recognizing this revenue on a straight-line basis over the option period. In Q1 2015, we recorded an aggregate of \$1.1 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. The contract expired in 2014 with no further obligation for either party. Revenue recognized in Q1 2014 relates to the batches shipped to BMS during the period.

#### *Spectrum revenue*

In September 2013, Spectrum announced that they had shipped the first commercial orders of Marqibo. We continue to earn royalties on the sales of Marqibo, which uses a license to our technology.

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

	Three months ended March 31,			
	2015	% of Total	2014	% of Total
Research, development, collaborations and contracts	\$ 10,557	46 %	\$ 8,204	79%
General and administrative	2,716	12 %	2,050	20%
Depreciation	120	1 %	134	1%
Acquisition costs	9,295	41 %	—	
<b>Total operating expenses</b>	<b>\$ 22,688</b>		<b>\$ 10,388</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 2015, we increased our spending on TKM-HBV as we initiated a Phase I clinical trial. In addition, we incurred costs for the manufacture of TKM-Ebola-Guinea under our DoD contract – see overview.

R&D compensation expense increased in Q1 2015 as compared to Q1 2014 due to an increase in the number of both employees and contractors in support of our expanded portfolio of product candidates, as well as from our merger with OnCore. In addition, we incurred a total of \$1.2 million of incremental non-cash compensation expense related to the expiry of repurchase rights on shares issued as part of the consideration paid for the merger with OnCore (refer to notes to the financial statements), of which \$0.9 million has been included as part of research, development, collaborations and contracts expense, and \$0.3 million included as part of general and administrative expense.

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 2015 compared to Q1 2014 due largely to an increase in compensation expense linked to our increase in employee base and incremental corporate expenses to support the growth of the Company following the completion of our merger with OnCore. This includes an incremental non-cash compensation expense we incurred related to the expiry of repurchase rights on shares issued as part of consideration paid for the merger with OnCore (see above).

#### **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 2015, we spent \$0.1 million on property and equipment mostly related to lab equipment and information technology improvements.

#### **Acquisition costs**

In Q1 2015, we incurred \$9.3 million in costs for professional fees related to completing the merger with OnCore – see overview. This is a one-time cost specific to the merger with OnCore, and we do not expect to incur recurring acquisition costs.

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

	Three months ended March 31,	
	2015	2014
Interest income	\$ 202	\$ 147
Foreign exchange gains	7,038	1,443
Increase in fair value of warrant liability	(1,223)	(13,616)
<b>Total other losses</b>	<b>\$ 6,017</b>	<b>\$ (12,026)</b>

## Foreign exchange gains

In Q1 2015, we recorded foreign exchange gains of \$7.0 million related to an appreciation in the value of our U.S. dollar funds when converted to our functional currency of Canadian dollars. The U.S. dollar strengthened by 9% against the Canadian dollar in Q1 2015. 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).

## 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, 2015 was \$1.2 million as compared to \$13.6 million at the end of March 31, 2014. 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:

	Three months ended	
	March 31	
	2015	2014
Net loss for the period	\$ (11,989)	(17,984)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities	(2,780)	14,879
Changes in operating assets and liabilities	(3,074)	12,260
Net cash provided by (used in) operating activities	(17,843)	9,155
Net cash provided by (used in) investing activities	37,546	(335)
Net cash provided by financing activities	142,820	59,289
Effect of foreign exchange rate changes on cash & cash equivalents	(2,434)	(2,469)
Net increase in cash and cash equivalents	160,089	65,640
Cash and cash equivalents, beginning of period	72,187	68,717
<b>Cash and cash equivalents, end of period</b>	<b>\$ 232,276</b>	<b>134,357</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, 2015, we had cash and cash equivalents of approximately \$232.3 million as compared to an aggregate of \$112.2 million in cash and cash equivalents and short-term investments at December 31, 2014.

Operating activities used \$17.9 million in cash in Q1 2015 as compared to \$9.2 million of cash provided in Q1 2014. The increase in cash used from operating activities is primarily related to a significant costs incurred related to the acquisition of OnCore in March 2015, as well as cash received from Monsanto in January 2014.

On March 25, 2015, we completed an underwritten public offering of 7,500,000 common shares, at a price of \$20.25 per share, representing gross proceeds of \$151.9 million. The cost of financing, including commissions and professional fees, was approximately \$9.7 million, which gave us net proceeds of \$142.2 million. 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, 2014 we held \$72.2 million in cash and cash equivalents, \$40.0 in short-term investments, totalling \$112.2 million. On March 25, 2015, we raised net proceeds of \$142.2 million from a public offering. Our cash balance as at March 31, 2015 was \$232.3 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:

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

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

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

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

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

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

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

#### **CONTRACTUAL OBLIGATIONS**

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, 2014.

#### **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 April 30, 2015, we had 54,224,261 common shares issued and outstanding, outstanding options to purchase an additional 2,402,351 common shares and outstanding warrants to purchase an additional 386,750 common shares.

### **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, 2014.

### **ITEM 4. DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING**

As of March 31, 2015, 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). The scope of the effectiveness of disclosure controls and procedures do not include any disclosure controls and procedures of OnCore, which was acquired on March 4, 2015, that are also part of OnCore’s internal control over financial reporting. This exclusion is in accordance with SEC’s general guidance that a recently acquired business may be omitted from the scope of the assessment in the year of acquisition. Based upon this evaluation, the CEO and CFO have concluded that as of March 31, 2015, 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, 2015 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 Ascletris Pharmaceuticals (Hangzhou) Co., Ltd. (“Ascletris”) 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 Ascletris triggers a \$5 million milestone obligation from Alnylam to Tekmira. However, Alnylam has demanded a declaration that we have not yet met our milestone obligations. We dispute Alnylam’s position. To remedy this dispute, the parties have commenced arbitration proceedings, as provided for under the agreement. In addition to seeking a declaration that we have met our obligations under the agreement, we have also stated a claim for breach of contract, breach of the implied covenant of good faith and fair dealing, and fraud. The hearing date for this arbitration is currently set for the second week in May, 2015.

#### **University of British Columbia (“UBC”)**

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

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

### ITEM 1A. RISK FACTORS

Other than as described below, 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, 2014.

*The FDA may place holds on our clinical trial programs which may prevent or delay us from completing our clinical trial programs or lead to the imposition of further clinical holds or the failure of our product candidates to obtain marketing approval.*

In July 2014, we received notice from the FDA that the TKM-Ebola IND had been placed on clinical hold. The FDA is seeking data to elucidate the mechanism of potential cytokine release and a modification to the protocol for the multiple ascending dose portion of the trial to ensure the safety of healthy volunteers. In August 2014, the FDA modified its clinical hold to a “partial clinical hold,” allowing for the potential use of TKM-Ebola in individuals who have confirmed or suspected Ebola infection. In April 2015, the FDA notified us that the partial clinical hold had been modified to permit repeat dosing of healthy volunteers at a dose of 0.24 mg/kg/day. However, the IND for TKM-Ebola remains on partial clinical hold with regard to doses above 0.24 mg/kg/day in healthy volunteers.

There can be no assurance that the FDA will lift the partial hold with regard to doses above 0.24mg/kg on the TKM-Ebola IND on a timely basis, or at all. Additionally, the FDA could impose additional requirements that may significantly increase the time and expense of obtaining FDA approval, which could delay or prevent marketing of the therapeutic.

### 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**

<b>Exhibit Number</b>	<b>Description</b>
10.1††**	License Agreement by and between NeuroVive Pharmaceutical AB and OnCore Biopharma, Inc., dated as of September 8, 2014.
10.2††**	Research Collaboration and Funding Agreement by and between Baruch S. Blumberg Institute and OnCore Biopharma, Inc., dated as of October 29, 2014
10.3††**	Stock Purchase Agreement by and among OnCore Biopharma, Inc. and each of the stockholders of Enantigen Therapeutics, Inc., dated as of October 1, 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

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\*\* Filed herewith.

†† Confidential treatment has been requested as to portions of this exhibit.

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [\*\*\*]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

CONFIDENTIAL

**LICENSE AGREEMENT**

**by and between**

**NEUROVIVE PHARMACEUTICAL AB**

**and**

**ONCORE BIOPHARMA, INC.**

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## LICENSE AGREEMENT

This License Agreement (this “**Agreement**”) dated the 8<sup>th</sup> day of September 2014 (the “**Effective Date**”) is by and between NeuroVive Pharmaceutical AB, a company organized under the laws of Sweden (“**NeuroVive**”), and OnCore Biopharma, Inc., a Delaware corporation (“**OnCore**”). NeuroVive and OnCore may each be referred to herein individually as a “**Party**” and collectively as the “**Parties**”.

### INTRODUCTION

WHEREAS, NeuroVive is in the business of developing and commercializing cyclophilin inhibitors and have acquired a compound series with antiviral activity that are encompassed in the Licensed Patents (as defined below);

WHEREAS, OnCore is in the business of discovering, developing and commercializing therapies for liver and viral diseases and desires to develop one or more compounds within the Licensed Compound Series as Licensed Products (each as defined below) for oral treatment of Hepatitis B and at OnCore’s option, other anti-viral indications;

WHEREAS, this Agreement sets forth the terms and conditions under which NeuroVive will license the Licensed Patents and the Licensed Know-How (as defined below) to OnCore such that OnCore can develop and, if successful, commercialize Licensed Products in the Field (as defined below).

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth below and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

### ARTICLE 1 DEFINITIONS

When used in this Agreement, each of the following terms shall have the meanings set forth in this ARTICLE 1:

1.1. “**Acquirer Intellectual Property**” means the Patent Rights and Know-How owned or controlled by a Third Party acquirer of NeuroVive or OnCore, as the case may be, immediately prior to a Change of Control transaction, and Improvements thereto following the effective date of such Change of Control.

1.2. “**Affiliate**” means, with respect to any Person, any other Person which controls, is controlled by, or is under common control with such Person. A Person shall be regarded as in control of another entity if it owns or controls more than fifty percent (50%) of the equity securities of the subject entity entitled to vote in the election of directors (or, in the case of an entity that is not a corporation, for the election of the corresponding managing authority). Notwithstanding the foregoing, with respect to OnCore, “**Affiliate**” does not include any stockholder of OnCore as of the Effective Date; provided however, that for purposes of Article 9, stockholders of OnCore as of the Effective Date (including any respective subsidiaries of such stockholders, as applicable) shall be included as Affiliates.

1.3. “**API**” means active pharmaceutical ingredient.

1.4. “**Applicable Law**” means the laws, rules and regulations applicable to either Party, including any rules, regulations, guidelines or other requirements of the Regulatory Authorities applicable to the Development, Manufacturing or Commercialization of Licensed Products, that may be in effect from time to time in the Territory.

1.5. “**Asia**” means China, Japan, South Korea, Taiwan and Singapore.

1.6. “**Bankruptcy Code**” means Title 11, United States Code, as amended, or analogous provisions of Applicable Law outside the United States.

1.7. “**Blocking Patent**” means any Patent Rights owned or controlled by a Third Party with respect to which Patent Rights an assertion is made by such Third Party that (i) the composition of the Licensed Product, (ii) the formulation of the Licensed Product transferred to OnCore under ARTICLE 3, or (iii) the use of a Licensed Product in the Field infringes such Third Party’s Patent Rights in the Territory in the Field.

1.8. “**Business Day**” means (a) in the case of OnCore, a day on which banking institutions in New York, New York are open for business and (b) in the case of NeuroVive, a day on which banking institutions in Stockholm, Sweden are open for business.

1.9. “**Change of Control**” means, with respect to a Party, (a) a merger or consolidation of such Party with a Third Party which results in the stockholders or equity holders of such Party not owning at least fifty percent (50%) of the combined voting power of the surviving entity immediately after such merger or consolidation, or (b) except in the case of a bona fide equity or debt financings, whether private or public, in which a Party issues new shares of its capital stock or securities convertible into shares of such Party, a transaction or series of related transactions in which a Third Party, together with its Affiliates, becomes the beneficial owner of fifty percent (50%) or more of the combined voting power of the outstanding securities of such Party, or (c) the sale or other transfer to a Third Party of all or substantially all of such Party’s business to which the subject matter of this Agreement relates.

1.10. “**CMC**” means chemistry, manufacturing and controls.

1.11. “**Combination Product**” means (a) any Licensed Product that contains a Licensed Compound Series compound combined with one or more other APIs that are not within the Licensed Compound Series or (b) any package containing a Licensed Product combined with another therapeutic, prophylactic or diagnostic product or with a measurement, monitoring or delivery device, where the package is sold as one (1) stock keeping unit.

1.12. “**Commercialization**” means any and all activities constituting using, marketing, promoting, distributing, offering for sale and selling a Licensed Product in the Field in the Territory and shall include, but not be limited to, activities required to fulfill ongoing post-approval regulatory obligations, including adverse event reporting and sales force training. When used as a verb, “**Commercialize**” shall mean to engage in Commercialization.

1.13. “**Commercially Reasonable Efforts**” means the efforts and resources that would normally be exerted or employed by a similarly situated biopharmaceutical company for a product of similar commercial or strategic importance, and at a similar stage of its product life, based on conditions then prevailing, taking into consideration safety and efficacy, development costs, the anticipated prescription label and all other relevant factors; in the context of Commercialization, marketing and sales efforts are undertaken with an aim to maximize lawful sales of Licensed Products in the approved indication(s) in the relevant jurisdiction.

1.14. “**Confidential Information**” means, with respect to each Party, proprietary data or information that belong in whole or in part to such Party, its Affiliates or sublicensees, including, without limitation, (a) all NeuroVive Intellectual Property and OnCore Intellectual Property, (b) any information designated as Confidential Information of such Party hereunder, in all cases that, if disclosed in writing, is marked with the words “Confidential,” “Proprietary” or words of similar import, and if disclosed orally or visually, is described in reasonable detail in a written notice sent by the Disclosing Party to the Receiving Party within thirty (30) days of the oral or visual disclosure requesting that such information be treated as Confidential Information hereunder and (c) all information that a reasonable person would understand to be confidential or proprietary in nature, whether or not marked as such.

1.15. “**Confidentiality Agreement**” means that certain Confidentiality Agreement, dated as of June 4, 2014, between NeuroVive and OnCore.

1.16. “**Contract Quarters**” means the successive three (3) month periods in each Contract Year ending on March 31, June 30, September 30 or December 31.

1.17. “**Contract Year**” means the twelve (12) month period beginning on January 1 and ending on December 31 of each calendar year, provided, however, that the first Contract Year shall be the period of time beginning on the Effective Date and ending on December 31, 2014. Each Contract Year, except the first Contract Year, shall be divided into four (4) Contract Quarters.

1.18. “**Control**” or “**Controlled**” means with respect to any (a) material, item of information, method, data or other Know-How, or (b) intellectual property right, the possession (whether by ownership or license, other than pursuant to this Agreement) by a Party or its Affiliates of the ability to grant to the other Party access and/or a license as provided herein under such item or right without violating any Third Party rights thereto or the terms of any agreement or other arrangement with any Third Party existing before or after the Effective Date.

1.19. “**Development**” means all pre-clinical, clinical, CMC and regulatory activities with respect to a Licensed Product in the Field and in the Territory from the Effective Date until Regulatory Approval of such Licensed Product is obtained for the indication under study. When used as a verb, “**Develop**” shall mean to engage in Development.

1.20. “**Development Costs**” means, with respect to a Licensed Product, the costs and expenses incurred in conducting Development activities from the Effective Date through the later of (a) the date of the last Regulatory Approval obtained in the Territory for such Licensed Product, or (b) the date of termination of Development of the final indication for which Regulatory Approval is to be sought in the Territory.

1.21. “**Development Plan**” means a written plan in reasonable detail covering the period from the Effective Date through Regulatory Approval for (i) in the case of OnCore, the Development of the first Licensed Product for the Hepatitis B Indication, and in the case of NeuroVive, the Development of Licensed Products outside the Field, in each case including, but not limited to, activities designed to generate the preclinical, process development/manufacturing/scale-up, clinical and regulatory plans and information required for filing Regulatory Approval Applications, and (ii) preparation and submission of Regulatory Approval Applications.

1.22. “**EMA**” means the European Medicines Agency or a successor agency in the European Union with responsibilities comparable to those of the European Medicines Agency.

1.23. “**Executive Officers**” means the Chief Executive Officer of OnCore (or an executive of OnCore designated by such Chief Executive Officer) and the Chief Executive Officer of NeuroVive (or an executive of NeuroVive designated by such Chief Executive Officer).

1.24. “**FD&C Act**” means the U.S. Federal Food, Drug, and Cosmetic Act, as amended from time to time (21 U.S.C. Section 301 et seq.), together with any rules and regulations promulgated thereunder.

1.25. “**FDA**” means the United States Food and Drug Administration, or a successor agency in the United States with responsibilities comparable to those of the United States Food and Drug Administration.

1.26. “**Field**” means the Hepatitis B Indication and such other indications licensed to OnCore under Section 2.5.

1.27. “**First Commercial Sale**” means, with respect to a given Licensed Product in a country in the Territory, the first commercial sale in an arms-length transaction of such Licensed Product to a Third Party by or on behalf of OnCore, its Affiliate or its sublicensee in such country following receipt of applicable Regulatory Approval of such Licensed Product in such country.

1.28. “**Gross Sales**” for purposes of this Agreement means the amount invoiced by OnCore or its Affiliates or sublicensees (the “Selling Party”) for sales of Licensed Products to a Third Party purchaser, less taxes, duties or other governmental charges imposed on the sale of Licensed Products and actually paid or accrued by the Selling Party, to the extent billed as a separate line item by the Selling Party to the Third Party purchaser, and calculated in accordance with US GAAP. To the extent such taxes, duties or governmental charges are based on estimates, such estimates will be adjusted to actual on a periodic basis. A sale of a Licensed Product is deemed to occur in accordance with US GAAP.

(a) For sake of clarity and avoidance of doubt, the transfer of a Licensed Product by a Selling Party to another Affiliate of such Selling Party or to a sublicensee of such Selling Party for resale shall not be considered a sale; in such cases, Gross Sales shall be determined based on the amount invoiced or otherwise billed by such Affiliate or sublicensee to an independent Third Party, less the Gross Sales Deductions allowed under this Section.

(b) Notwithstanding the foregoing, subject to Sections 1.28(c) and 1.28(d), in the event a Licensed Product is sold as a Combination Product, Gross Sales, for purposes of determining royalty payments on such Licensed Product, shall be calculated by multiplying the Gross Sales of the Combination Product by the fraction [\*\*\*].

(c) With respect to any Combination Product that comprises (i) a Licensed Compound Series compound and (ii) one or more other API, where (x) the other API is not sold separately in the applicable country during the applicable accounting period, or (y) the Licensed Product is not sold separately in the applicable country during the applicable accounting period, then the Gross Sales of such Combination Product shall be determined [\*\*\*].

(d) With respect to any Combination Product that comprises a monitoring device, any [\*\*\*] for such monitoring device shall be fully deductible from the Gross Sales for such Combination Product. Such deduction for the [\*\*\*] for such monitoring device shall be applied to Gross Sales before any other deductions are taken from Gross Sales.

(e) Notwithstanding the foregoing, the Parties agree that, for purposes of this Section 1.28, (a) [\*\*\*] contained in a Licensed Product shall not be deemed to be API but (b) [\*\*\*] of a Licensed Product such as, without limitation, [\*\*\*], shall not fall within the aforementioned exception and shall be treated as APIs for purposes of this Section, provided, however, that the Licensed Product cannot be Developed or Commercialized without such [\*\*\*].

1.29. “**Hatch-Waxman Act**” means the U.S. Drug Price Competition and Patent Term Restoration Act, as amended from time to time.

1.30. “**Hepatitis B Indication**” means all uses to treat hepatitis B virus in humans via oral administration.

1.31. “**Improvements**” means any and all ideas, information, Know-How, data research results, writings, inventions, discoveries, modifications, enhancements, derivatives, new uses, developments, techniques, materials, compounds, products, designs, processes, or other technology or intellectual property, whether or not patentable or copyrightable, and all Patent Rights and other intellectual property rights in any of the foregoing.

1.32. “**IND**” means an Investigational New Drug Application, as defined in the FD&C Act, or similar application or submission that is required to be filed with any Regulatory Authority before beginning clinical testing of a Licensed Product in human subjects.

1.33. [\*\*\*].

1.34. “**Joint Intellectual Property**” means Patent Rights, Know-How and Improvements created, conceived or reduced to practice jointly by NeuroVive (including its Affiliates, agents, sublicensees (other than OnCore or its Affiliates) and Third Parties acting on their behalf) and OnCore (including its Affiliates, agents, sublicensees (other than NeuroVive or its Affiliates) and Third Parties acting on its behalf) while performing activities under this Agreement.

1.35. “**Know-How**” means any non-public, proprietary invention, discovery, process, method, composition, formula, procedure, protocol, technique, result of experimentation or testing, information, data, material, drawings, illustrations or other artwork, technology or other information, whether or not patentable or copyrightable.

1.36. “**Licensed Compound Series**” means, to the extent enabled in any of the NeuroVive Patent Rights, all sangliffehrin-based cyclophilin inhibitors together with all possible metabolites, isomers, salts, hydrates, polymorphs, crystalline forms, solvates and prodrugs thereof.

1.37. “**Licensed Products**” means all oral dosage forms of Licensed Compound Series compounds, including any present and future combination products containing a Licensed Compound Series compound as one of the active ingredients, the making, use, offer for sale, sale or import of which would infringe a Valid Claim of any of the NeuroVive Patent Rights in, or misappropriate any intellectual property rights in, the NeuroVive Intellectual Property. For the avoidance of doubt, Licensed Products includes NVP018.

1.38. “**Manufacturing**” means, as applicable, all activities associated with the production, manufacture, processing, filling, finishing, packaging, labeling, shipping, and storage of Licensed Products and its API, including process and formulation development, process validation, stability testing, manufacturing scale-up, pre-clinical, clinical and commercial manufacture and analytical development, product characterization, quality assurance and quality control, whether such activities are conducted by a Party, its Affiliates or a Third Party contractor of such Party. When used as a verb, “**Manufacture**” shall mean to engage in Manufacturing.

1.39. “**NDA**” has the meaning set forth in the definition of Regulatory Approval Application.

1.40. “**NeuroVive Improvements**” means any and all Improvements to the NeuroVive Patent Rights or NeuroVive Know-How created, conceived or reduced to practice solely by NeuroVive, or its Affiliates, agents, or sublicensees (other than OnCore or its Affiliates) or by Third Parties acting on their behalf.

1.41. “**NeuroVive Intellectual Property**” means NeuroVive Patent Rights, NeuroVive Know-How and NeuroVive Improvements, excluding Acquirer Intellectual Property.

1.42. “**NeuroVive Know-How**” means Know-How that is (a) Controlled by NeuroVive or any of its Affiliates on or after the Effective Date, (b) related to the Licensed Products, and (c) necessary or useful in connection with the Development, Manufacture, use or Commercialization of any Licensed Product.

1.43. “**NeuroVive Patent Rights**” means (a) the patents and patent applications listed in Schedule 1.43, (b) any Patent Rights arising from those patents and patent applications during the Term, and (c) any other Patent Rights in the Territory that are Controlled by NeuroVive or any of its Affiliates during the Term (x) with claims covering any composition or method of making or method of using Licensed Compound Series or Licensed Products or (y) that are necessary or useful in connection with the Development, Manufacture, or Commercialization of sanglifehrin-based cyclophilin inhibitors.

1.44. “**NVP018**” means the Licensed Product containing the Licensed Compound Series compound designated as NV556 (the structure of which is attached to Schedule 1.43), which is currently under development by NeuroVive as of the Effective Date.

1.45. “**OnCore Improvements**” means any and all Improvements to the NeuroVive Intellectual Property, OnCore Patent Rights or OnCore Know-How created, conceived or reduced to practice solely by OnCore, or its Affiliates, agents, or sublicensees or by Third Parties acting on its behalf, while performing activities under this Agreement.

1.46. “**OnCore Intellectual Property**” means OnCore Know-How, OnCore Patent Rights and OnCore Improvements, excluding Acquirer Intellectual Property.

1.47. “**OnCore Know-How**” means Know-How that is (a) either (i) Controlled by OnCore or any of Affiliates on the Effective Date, or (ii) owned by OnCore or any of its Affiliates during the Term, (b) related to the Licensed Product, and (c) is necessary or useful in connection with Development, Manufacture, use or Commercialization of any Licensed Product.

1.48. “**OnCore Patent Rights**” means any Patent Rights claiming any composition or method of making or method of use of a Licensed Product or otherwise necessary in connection with the Development, Manufacture, use or Commercialization of any Licensed Product, which is (a) Controlled by OnCore or any its Affiliates as of the Effective Date, or (b) owned by OnCore or any of its Affiliates during the Term.

1.49. **“Patent Rights”** means all patents (including all reissues, extensions, substitutions, confirmations, re-registrations, re-examinations, revivals or revalidations, supplementary protection certificates and patents of addition) and patent applications (including all provisional applications, continuations, continuations-in-part and divisions).

1.50. **“Person”** means any natural person, corporation, firm, business trust, joint venture, association, organization, company, partnership or other business entity, or any government, or any agency or political subdivisions thereof.

1.51. **“Phase Ib Clinical Trial”** means a human clinical trial of a Licensed Product, the principal purpose of which is a “proof of concept” in patients infected with hepatitis B conducted in accordance with 21 C.F.R. § 312.21(a) or other corresponding and similar regulatory requirements prescribed by Regulatory Authorities outside of the US.

1.52. **“Phase II Clinical Trial”** means a human clinical trial of a Licensed Product, the principal purpose of which is an additional determination of safety and efficacy in the target patient population over a range of doses or patients conducted in accordance with 21 C.F.R. § 312.21(b) or other corresponding and similar regulatory requirements prescribed by Regulatory Authorities outside of the US and which enables the initiation of a Phase III Clinical Trial.

1.53. **“Phase III Clinical Trial”** means a human clinical trial of a Licensed Product that is designed to establish that the Licensed Product is safe and efficacious for its intended use, and to define warnings, precautions, and adverse reactions that are associated with the Licensed Product in the dosage range to be prescribed, and to support Regulatory Approval of the Licensed Product or label expansion of the Licensed Product conducted in accordance with 21 C.F.R. § 312.21(c) or other corresponding and similar regulatory requirements prescribed by Regulatory Authorities outside of the US.

1.54. **“Product Labels and Inserts”** means (a) all labels and other written, printed or graphic matter affixed to any container, packaging or wrapper utilized with the Licensed Product, or (b) any written material physically accompanying the Licensed Product, including, without limitation, product package inserts.

1.55. **“Product Trademarks”** means the trademark(s), service mark(s), accompanying logos, trade dress and/or indicia of origin used in connection with the Commercialization of each Licensed Product in the Territory. For purposes of clarity, the term Product Trademark(s) shall not include, without limitation, the corporate names and logos of either Party.

1.56. **“Promotional Materials”** means all written, printed or graphic material, other than Product Labels and Inserts, and all premium items and other materials provided by OnCore for use during details relating to a Licensed Product.

1.57. **“Regulatory Approval”** means the approval by the applicable Regulatory Authority for the testing, commercial manufacture, distribution, marketing, promotion, offer for sale, use, import, export and sale of a Licensed Product in a regulatory jurisdiction in the Territory, including, where required, separate pricing and/or reimbursement approvals.

1.58. **“Regulatory Approval Application”** means an application submitted to the appropriate Regulatory Authority seeking Regulatory Approval of a Licensed Product in the Territory including, without limitation, any type or form of New Drug Application (“**NDA**”) in the United States, any type or form of marketing authorization application in the European Union, and any similar application to a competent drug regulatory authority in a relevant country or region in the Territory.

1.59. **“Regulatory Authority”** means any applicable supranational, national, regional, state or local regulatory agency, department, bureau, commission, council or other government entity involved in granting of Regulatory Approval for a Licensed Product in a jurisdiction within the Territory.

1.60. **“Regulatory Materials”** means regulatory applications, submissions, notifications, communications, correspondence, registrations, Regulatory Approvals and/or other filings made to, received from or otherwise conducted with a Regulatory Authority that are necessary or useful in order to Develop, Manufacture, or Commercialize any Licensed Product in a particular country or regulatory jurisdiction in the Territory.

1.61. **“Related Party”** means OnCore’s Affiliates and permitted sublicensees.

1.62. **“Reserved Rights”** shall mean rights to Develop, have Developed, Manufactured or have Manufactured, Commercialize or have Commercialized any Licensed Product anywhere in the world for indications involving the treatment of viral diseases other than hepatitis B virus.

1.63. **“Royalty Term”** means, with respect to each Licensed Product, for each country in the Territory, the period of time commencing on the date of First Commercial Sale of such Licensed Product in such country and extending until the earlier of (a) the termination of this Agreement pursuant to and to the extent set forth in ARTICLE 10, or (b) the date on which the Manufacture, use or Commercialization of any Licensed Product is no longer covered by a Valid Claim of NeuroVive Patent Rights in such country.

1.64. **“Territory”** means the world.

1.65. **“Third Party”** means any Person other than a Party or any of its Affiliates.

1.66. **“Third Party Technology”** means any Patent Rights, Know-How, inventions, or other intellectual property owned or controlled by a Third Party but not Controlled by a Party or its Affiliates.

1.67. “US” means the United States of America, including its territories and possessions.

1.68. “US GAAP” means the US generally accepted accounting principles, as consistently applied.

1.69. “Valid Claim” means a claim of (a) an issued and unexpired Patent Right, which claim has not been revoked or held unenforceable, unpatentable or invalid by a decision of a court or other governmental agency of competent jurisdiction which is not appealable or has not been appealed within the time allowed for appeal, and which has not been abandoned, disclaimed, denied or admitted to be invalid or unenforceable through reissue, re-examination or disclaimer or otherwise, or (b) a patent application for a patent included within the Patent Rights and which claim has not been cancelled, withdrawn or abandoned or finally rejected by an administrative agency action from which no appeal can be taken or pending for longer than seven (7) years in a patent application or its parent patent applications.

1.70. **Additional Definitions.** The following terms have the meanings set forth in the corresponding Sections of this Agreement:

	<b>Defined Term</b>	<b>Section Reference</b>
“Action”		12.2.1
“Agreement”		Preamble
“Anti-Bribery Laws”		11.1.5
“Audited Party”		7.6.2
“Blocking Patent Claims”		8.3.3(b)
“Breaching Party”		10.2.1
“Co-Chairperson”		4.1.1(b)
“Commercialization Plan”		6.3
“Date of Notice”		10.2.1(a)
“Disclosing Party”		9.1
“Early Termination”		10.3.1(a)
“Effective Date”		Preamble
“Efficacy Failure”		10.4.1

<b>“Generic Entry”</b>	10.3.1
<b>“Holdback Extension”</b>	7.2
<b>“Holdback Period”</b>	7.2
<b>“Indemnitee”</b>	11.5.3
<b>“Infringement Claim”</b>	8.3.1
<b>“Infringement Defense Costs”</b>	8.3.2
<b>“IP”</b>	10.5
<b>“JSC”</b>	4.1.1
<b>“Joint Steering Committee”</b>	4.1.1
<b>“Losses”</b>	11.5.1
<b>“Milestone Event”</b>	7.3
<b>“Milestone Payment”</b>	7.3
<b>“NeuroVive”</b>	Preamble
<b>“NeuroVive Indemnitees”</b>	11.5.1
<b>“OnCore”</b>	Preamble
<b>“OnCore Indemnitees”</b>	11.5.2
<b>“OnCore Securities”</b>	7.2
<b>“Option Notice”</b>	2.5
<b>“Party”</b>	Preamble
<b>“Prosecuting Party”</b>	8.1.1(b)
<b>“Receiving Party”</b>	9.1
<b>“Safety Failure”</b>	10.4.1
<b>“Sale Transaction”</b>	7.2
<b>“Securities Act”</b>	11.2.8
<b>“SPC”</b>	8.5
<b>“Taxes”</b>	7.5.1
<b>“Term”</b>	10.1
<b>“Transition Assistance”</b>	3.1.2
<b>“Transition Term”</b>	3.1.1

**ARTICLE 2**  
**LICENSE AND INTELLECTUAL PROPERTY OWNERSHIP**

2.1 License Grant to OnCore.

Subject to the terms and conditions of this Agreement, NeuroVive hereby grants OnCore: (a) an exclusive license (even as to NeuroVive), with the right to sublicense as provided in Section 2.2, under the NeuroVive Intellectual Property to Develop, have Developed, Manufacture, have Manufactured, Commercialize and have Commercialized the Licensed Products in the Field in the Territory; provided that NeuroVive reserves for itself the right to Develop, have Developed, Manufacture, have Manufactured, Commercialize and have Commercialized the Licensed Products outside the Field; and (b) a non-exclusive, royalty-free right and license and right of reference, with the right to sublicense, under NeuroVive's or its Affiliates rights, titles and interests in and to any Regulatory Materials solely for OnCore to Develop, have Developed, Manufacture, have Manufactured and Commercialize and have Commercialized the Licensed Products in the Field.

2.2 Sublicenses.

2.2.1 Right to Sublicense. OnCore may sublicense the rights granted to it under Section 2.1 to one or more of its Affiliates or Third Parties at any time. OnCore shall use Commercially Reasonable Efforts to ensure that any such Third Party to which it grants a sublicense is financially sound and able to meet the obligations of any sublicense agreement. OnCore shall remain responsible for the performance of its obligations under this Agreement, including the performance of its sublicensees, particularly with respect to all payments due hereunder, whether or not such payments are made by the sublicensing Party, its Affiliates or its sublicensees. OnCore shall provide reasonable advance notice of any such sublicense to NeuroVive and shall, upon request, provide NeuroVive the opportunity to review the sublicense agreement. All such notices of sublicenses shall be deemed to be Confidential Information of the OnCore subject to the provisions of ARTICLE 9 whether or not so marked, and NeuroVive shall not disclose such Confidential Information to any Third Party or use such Confidential Information for any purpose other than for the purposes of Section 2.2.3, except (a) to the extent required under applicable securities and other laws, and (b) to attorneys, accountants and other advisors, and to existing and prospective investors, lenders, licensees or collaborators, subject to commercially reasonable precautions to protect the confidentiality of the information. Notwithstanding the foregoing, in the event that any such sublicense would convey substantially all rights granted to OnCore under this Agreement, such sublicense shall not be effective without the prior written consent of NeuroVive, such consent not to be unreasonably withheld or delayed.

2.2.2 Terms. Each sublicense granted by OnCore under this Agreement shall be subject and subordinate to the terms and conditions of this Agreement and shall contain terms and conditions consistent with those in this Agreement. Agreements with any Commercializing sublicensee shall contain the following provisions: (a) a requirement that such sublicensee submit applicable sales or other reports consistent with those required hereunder; (b) an audit requirement similar to the requirement set forth in Section 7.6; and (c) a requirement that such sublicensee comply with the confidentiality and non-use provisions of ARTICLE 9 with respect to both Parties' Confidential Information.

2.2.3 Effect of Termination on Sublicenses. If this Agreement terminates for any reason, OnCore shall use its Commercially Reasonable Efforts to assign to NeuroVive or its designee OnCore's rights, obligations, and interest under and in any agreement it has with a sublicensee from the effective date of such termination; provided, however, that such sublicensee is not in breach of its sublicense agreement and such sublicensee agrees to comply with all of the terms of this Agreement to the extent applicable from the rights originally sublicensed to it by OnCore; and provided, further, that NeuroVive shall not be liable for, and shall be indemnified and held harmless by OnCore against, any and all liability arising under the sublicense agreement prior to the effective date of such termination, and that the terms of the sublicense shall not apply to NeuroVive and shall terminate to the extent that they are inconsistent with the terms of this Agreement or impose obligations on NeuroVive beyond the obligations set forth in this Agreement.

### 2.3 Exclusivity.

During the Term, NeuroVive shall not, and shall cause its Affiliates to not, whether directly or indirectly (including via licensing), Develop, have Developed, Manufacture, have Manufactured, Commercialize or have Commercialized any Licensed Compound Series compound (a) in any dosage form for use involving the treatment of hepatitis B virus in humans or (b) for use in the Field (as may be expanded in accordance with Section 2.5 below).

### 2.4 Ownership of and Rights to Intellectual Property.

2.4.1 OnCore Intellectual Property. OnCore is and shall remain the sole owner of the OnCore Intellectual Property. OnCore shall solely control the prosecution of OnCore Patent Rights.

2.4.2 NeuroVive Intellectual Property. NeuroVive is and shall remain the sole owner of the NeuroVive Intellectual Property. NeuroVive shall solely control the prosecution of NeuroVive Patent Rights.

2.4.3 Joint Intellectual Property. OnCore and NeuroVive shall jointly own all Joint Intellectual Property and neither OnCore nor NeuroVive shall endeavor to make any use of the Joint Intellectual Property to the detriment of the other party during the Term. The Parties shall jointly control the prosecution of any Patent Rights within the Joint Intellectual Property during the Term through the Patent Steering Committee (as defined below).

2.4.4 Each Party shall require its employees, consultants and relevant independent contractors to enter into a written agreement that assigns to such Party all right, title and interest in and to all Intellectual Property created, conceived or reduced to practice on behalf of such Party by such employees, consultants and independent contractors.

## 2.5 Option to Reserved Rights.

NeuroVive shall not, and shall cause its Affiliates not to, grant to any Third Party any Reserved Rights, except in accordance with this Section 2.5. NeuroVive hereby grants to OnCore a right of first option to obtain any Reserved Rights under this Agreement in accordance with this Section 2.5. OnCore may, at any time during the Term, give written notice to NeuroVive that it wishes to exercise its option to include under this Agreement any Reserved Rights solely with respect to oral routes of administration. Such notice shall set forth the virus or viruses to which such option shall apply. As of the date of any such notice, the definition of Field shall be deemed to include the Reserved Rights that are the subject of such notice. In the event NeuroVive elects to (a) grant to any Affiliate or Third Party or (b) itself develop any Reserved Rights with respect to non-oral routes of administration, NeuroVive shall promptly notify OnCore (each, an “**Option Notice**”) and upon receipt of any such Option Notice, OnCore shall have ninety (90) days in which to notify NeuroVive whether it wishes to exercise its option to include such Reserved Rights under this Agreement. Upon receipt of timely notice given to NeuroVive that OnCore wishes to exercise such option, then the definition of Field shall be deemed to include the Reserved Rights subject to the applicable Option Notice as of the date of OnCore’s notice of exercise. If OnCore does not respond to the Option Notice within the ninety (90) day period, then NeuroVive shall be free to grant a license to any Third Party only with respect to the Reserved Rights that were the subject of the Option Notice.

## 2.6 No Other Rights.

Except as otherwise expressly provided in this Agreement, under no circumstances shall a Party, as a result of this Agreement, obtain any ownership interest or other right in any Know-How or Patent Rights of the other Party, including items Controlled or developed by the other Party, or provided by the other Party to the receiving Party at any time pursuant to this Agreement.

### ARTICLE 3 TRANSITION ASSISTANCE; COORDINATION OF API SUPPLY

#### 3.1 Transition Assistance.

3.1.1 Transition Term. During the [\*\*\*] period following the Effective Date (the “**Transition Term**”), NeuroVive will provide Transition Assistance to OnCore. The Transition Term may be extended by the mutual, written consent of both Parties upon terms including compensation to be negotiated in good faith.

3.1.2 Transition Assistance. During the Transition Term, NeuroVive shall use its Commercially Reasonable Efforts to provide assistance to OnCore, at no out-of-pocket cost to OnCore (except as set forth below), to effect the orderly transfer of the Licensed Product and related documentation to OnCore (the “**Transition Assistance**”). Such Transition Assistance shall include, without limitation, within [\*\*\*] after the Effective Date complete transfer of the following: (A) in whatever medium is most efficient for the Parties (i) all compound structures, (ii) all NeuroVive Know-How; and (B) reasonable quantities of all available physical samples of Licensed Compound Series that exist on the Effective Date. For the avoidance of doubt, the scope of the information to be transferred pursuant to this Section 3.1.2 shall be of sufficient detail to enable a technician of ordinary skill in the art to use the information after a reasonable period of adaptation.

3.2 Coordination of Supply and Clinical Supplies.

3.2.1 Subject to the availability of API, OnCore may purchase from NeuroVive, and on request of OnCore NeuroVive shall supply, such quantities of the API used in NVP018 as OnCore may require at NeuroVive's actual acquisition cost without markup. NeuroVive will supply receipts and/or invoices evidencing such acquisition cost. Alternatively, OnCore may purchase such API or cGMP clinical supplies of Licensed Product directly from NeuroVive's then-current supplier at the same price as NeuroVive obtains from such supplier, and NeuroVive shall be responsible to ensure that such supplier extends the same price to OnCore as it does to NeuroVive for manufacture at that scale or batch size. On a Calendar Quarterly basis, the Parties will communicate to each other their estimated requirement for such API requirements.

3.2.2 Notwithstanding anything to the contrary in this Agreement, OnCore may source API, all other components of a Licensed Product, all clinical supplies of Licensed Product and all Development activities for Licensed Product (such as strain and process improvements) via [\*\*\*], or other vendors selected by OnCore. However, until [\*\*\*], NeuroVive shall not be required to supply a sample of the bacterial strain used in the Manufacture of API for NVP018. Following [\*\*\*], NeuroVive shall supply to OnCore, without cost, viable and specification-compliant samples of the bacterial strain used in the Manufacture of API for NVP018.

**ARTICLE 4**  
**JOINT STEERING COMMITTEE**

4.1 Joint Steering Committee.

4.1.1 Establishment of JSC. As soon as practicable and no later than sixty (60) days after the Effective Date, the Parties shall establish a committee to facilitate monitoring certain activities relating to Developing and Commercializing Licensed Products (the "**Joint Steering Committee**" or "**JSC**") as follows:

(a) Composition of the Joint Steering Committee. The JSC shall be comprised of three (3) representatives from each of the Parties. Each representative shall be an individual of suitable authority and seniority with significant experience or expertise in biopharmaceutical drug development. Each Party shall appoint its respective initial representatives to the JSC within sixty (60) days after the Effective Date, and may from time to time substitute its representatives, in its sole discretion, effective upon written notice to the other Party of such change. Additional representatives or consultants may from time to time, by mutual consent of the Parties, be invited to attend JSC meetings, subject to such representatives' and consultants' being bound by confidentiality obligations at least as strict as those contained in ARTICLE 9. Each Party shall bear its own expenses relating to attendance at such meetings by its representatives and consultants.

(b) Chairperson. Each Party shall designate one of its representatives to be a Co-Chairperson. Each Co-Chairperson shall conduct the following activities of the Joint Steering Committee cooperatively (the “**Co-Chairperson**”): (i) scheduling meetings of the JSC; (ii) setting agendas for meetings with solicited input from representatives of each Party; (iii) preparing and confirming minutes of the meetings, which shall provide a description in reasonable detail of the discussions held at the meeting and a list of any actions, decisions or determinations made by the JSC; and (iv) conducting effective meetings, including ensuring that objectives for each meeting are set and achieved.

(c) Meetings. The JSC shall meet in accordance with a schedule established by mutual written agreement of the Parties, but no less frequently than twice per Contract Year, at such locations as are determined by the JSC. Alternatively, the JSC may meet by means of teleconference, videoconference or other similar communications equipment.

(d) Responsibilities. The JSC shall have the following responsibilities: (i) reviewing Development Plans and amendments and updates thereto; (ii) reviewing regulatory strategy and clinical development strategy; (iii) monitoring Development activities for Licensed Products undertaken by either Party, including, without limitation, monitoring the progress in its conduct of the Development Plans; (iv) reviewing Commercialization Plans and amendments and updates thereto; (v) monitoring Commercialization activities for Licensed Products undertaken by either Party; and (vi) performing such other activities that the Parties mutually agree shall be the responsibility of the JSC.

4.1.2 Appointment of Subcommittees and Project Teams. The JSC shall be empowered to create such subcommittees of itself and other additional project teams as it may deem appropriate or necessary and may elect to delegate responsibilities to such subcommittees or additional project teams as it may from time to time deem appropriate. Each such subcommittee and project team shall report to the JSC, which shall have authority to approve or reject recommendations or actions proposed thereby, subject to the terms of this Agreement. Notwithstanding the foregoing, no subcommittee or project team shall have authority to make any decision binding upon the JSC or the Parties. Any such subcommittee or project team shall be governed by the terms of this Section 4.1 as the same apply to the JSC.

(a) The JSC shall establish, no later than its first meeting, a subcommittee to monitor and manage, in the mutual best interest of the Parties, the filing, prosecution and maintenance of all Patent Rights within the Joint Intellectual Property (the “**Patent Steering Committee**”). The Patent Steering Committee shall be composed of two (2) representatives of each of the Parties, who may or may not also be members of the JSC. The Patent Steering Committee shall have the following responsibilities solely with respect to Patent Rights within Joint Intellectual Property: (i) review, suggest revisions to and approve the filing of draft patent applications, including the claims therein; (ii) review and approve the non-PCT and PCT countries into which patent applications are filed; (iii) review office actions received from the various patent offices and approve responses thereto; (iv) approve filing strategy, including the filing of continuations, divisionals, continuations-in-part, reissues, reexaminations, etc.; (v) approve the payment of patent maintenance fees; and (vi) such other duties as the Parties may agree. The Patent Steering Committee shall meet by phone or in person at least once each Contract Quarter.

4.1.3 Decision-Making. With respect to any matter over which the JSC has responsibility pursuant to Section 4.1.1(d), the JSC should use reasonable efforts to reach agreement on a mutually acceptable resolution. If the JSC is unable to reach agreement, such matter shall be referred to the Executive Officers to be resolved by negotiation in good faith as soon as is practicable but in no event later than [\*\*\*] after referral. If the Executive Officers are unable to resolve such dispute within such [\*\*\*] period, OnCore shall have final decision-making authority in the Field in the Territory and NeuroVive shall have final decision-making authority outside the Field in the Territory. In no event will any disagreements within the JSC relating to the Development, Manufacture, or Commercialization of any Licensed Product be subject to the dispute resolution provisions of Section 12.15.

## **ARTICLE 5 DEVELOPMENT AND RELATED DILIGENCE**

### **5.1 Development of the Licensed Product**

Subject to the terms and conditions of this Agreement, OnCore shall for each Licensed Product use its Commercially Reasonable Efforts to Develop, obtain Regulatory Approval for, and Commercialize each such Licensed Product in the Field in the United States, the European Union and Asia pursuant to the Development Plan. Within [\*\*\*] after the Effective Date, OnCore shall submit to the JSC for review and discussion an initial Development Plan that covers all material Development activities and their timelines believed by OnCore, as of the date of submission, to be reasonably necessary to support the submission of a Regulatory Approval Application for the Licensed Product in the Field. The Development Plan, and any updates thereto, shall contain in reasonable detail the Development objectives to be achieved during the then-current Contract Year, the Development activities to be performed and a timeline for performing such Development activities.

### **5.2 Updates to Development Plan**

On an annual basis, OnCore shall use its Commercially Reasonable Efforts to update the Development Plan and submit such updated Development Plan, no later than [\*\*\*] of each Contract Year, to the JSC for review and discussion.

### **5.3 Regulatory Matters**

5.3.1 Regulatory Strategy. OnCore shall develop, and the JSC shall review, a regulatory strategy for the United States consistent with the Development Plan. Pursuant to and in accordance with such regulatory strategy, OnCore shall use its Commercially Reasonable Efforts to prepare and file Regulatory Approval Applications or other submissions to Regulatory Authorities as OnCore determines to be appropriate.

5.3.2 Communications with Regulatory Authorities. For all Licensed Products in the Field in the Territory, OnCore shall be solely responsible for: (1) all communications with any Regulatory Authority; (2) label development, including negotiations with any Regulatory Authority; (3) advisory committee meetings or their equivalent (if applicable); and (4) negotiation with any Regulatory Authority regarding post-approval requirements/commitments.

5.3.3 Regulatory Approvals. Regulatory Approval Applications for Licensed Product in the Field shall be made in OnCore's name, and OnCore shall be the only Party responsible for (1) interfacing, corresponding and meeting with the applicable Regulatory Authorities in the Territory with respect to any and all Licensed Products in the Field, and (2) for overseeing, monitoring, coordinating and filing Regulatory Approval Applications for such Licensed Products in the Field. OnCore shall hold in its name and maintain all Regulatory Approvals for Licensed Products in the Field.

#### 5.4 Third Parties.

OnCore and its Affiliates shall be entitled to utilize the services of Third Parties, including Third Party contract research organizations and service providers to perform their respective Development activities; provided, however, that OnCore shall remain at all times fully liable for its responsibilities under each Development Plan and this Agreement. Any agreement with a Third Party to perform OnCore's Development obligations under this Agreement shall include confidentiality and non-use provisions which are no less stringent than those set forth in ARTICLE 9.

### **ARTICLE 6 COMMERCIALIZATION AND RELATED DILIGENCE**

#### 6.1 Diligence in Commercialization.

OnCore shall use its Commercially Reasonable Efforts to Commercialize each Licensed Product in the Field in each country in which Regulatory Approval is obtained.

#### 6.2 Commercialization.

OnCore shall be solely responsible for, and shall record all revenues in connection with, Commercialization activities relating to the Licensed Products in the Field throughout the Territory.

#### 6.3 Commercialization Plan.

Commencing at least [\*\*\*] prior to the projected First Commercial Sale of a Licensed Product in the Field in the Territory, OnCore shall commence preparing a Commercialization Plan ("**Commercialization Plan**") for such Licensed Product. No later than [\*\*\*] prior to the projected First Commercial Sale of such Licensed Product in the Field in the Territory, OnCore shall submit such Commercialization Plan to the JSC for review. After the launch of such Licensed Product, on an annual basis, OnCore shall use its Commercially Reasonable Efforts to update the Commercialization Plan and submit such updated Commercialization Plan, no later than [\*\*\*] of each Contract Year, to the JSC for its review.

6.4 Commercial Manufacturing and Supply.

6.4.1 OnCore shall develop a manufacturing and supply strategy for Licensed Product (including API, drug substance and finished dosage form) consistent with the Commercialization Plan. Pursuant to this strategy, OnCore shall be solely responsible for Manufacturing and supplying the API, drug substance and finished dosage form of any Licensed Product for Commercialization in the Field throughout the Territory. In this role, OnCore shall identify and manage Third Party contract manufacturers, as well as lead all supply chain management and quality control activities.

6.4.2 Following OnCore's establishment of its commercial supply of API, NeuroVive may purchase API from OnCore's then-current contract manufacturer at the same price as OnCore obtains from such manufacturer, and OnCore shall be responsible to ensure that such manufacturer extends the same price to NeuroVive as it does to OnCore for manufacture at that scale or batch size. On a Calendar Quarterly basis, NeuroVive will communicate to OnCore its estimated requirement for API.

6.5 Medical and Scientific Affairs.

OnCore shall be solely responsible for medical and scientific affairs and programs, including professional symposia and other educational activities in the Field in the Territory. OnCore shall have the exclusive right to respond to all questions or requests for information about the Licensed Products in the Field made by any medical professionals or any other Person in the Territory.

**ARTICLE 7  
FINANCIAL PROVISIONS**

7.1 Initial License Fee.

Within thirty (30) days of the Effective Date, OnCore shall pay to NeuroVive an initial non-refundable license fee of one million dollars (\$1,000,000).

7.2 Initial Public Offering.

Promptly after OnCore or an Affiliate thereof consummates a firm-commitment underwritten initial public offering of stock, OnCore will issue to, or cause to be issued to, NeuroVive a number of shares of common stock of the publicly-traded entity that is equal to \$[\*\*\*] divided by the average of the opening and closing price of the publicly traded stock on the first day of trading (the "**OnCore Securities**"). Upon the request of OnCore or the managing underwriters of OnCore's initial public offering, NeuroVive shall not sell, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale (including sales pursuant to Rule 144) (a "**Sale Transaction**") of any OnCore Securities, or any securities convertible into or exchangeable or exercisable for any OnCore Securities, during the period beginning on the effective date of the registration statement relating to OnCore's initial public offering and through the date that is [\*\*\*] days after the effective date of OnCore's initial public offering (the "**Holdback Period**"). The Holdback Period may be extended as requested by OnCore or an underwriter to accommodate regulatory restrictions on (a) the publication or other distribution of research reports, and (b) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto (such period referred to herein as the "**Holdback Extension**"). OnCore may impose stop transfer instructions with respect to OnCore Securities subject to the foregoing restriction until the end of the Holdback Period and the Holdback Extension.

7.3 Milestones.

OnCore will pay to NeuroVive the amounts set forth below (each, a "**Milestone Payment**") no later than [\*\*\*] after the earliest date on which OnCore or any of its Related Parties receives written notification that the corresponding milestone event (each, a "**Milestone Event**") has first been achieved with respect to a Licensed Product in a country in the Territory:

**Clinical Development Milestones**

Initiation of the first Phase Ib Clinical Trial of a Licensed Product in the Field	\$[***]
Initiation of the first Phase II Clinical Trial of a Licensed Product in the Field	\$[***]
Initiation of the first Phase III Clinical Trial of a Licensed Product in the Field	\$[***]
FDA accepting for filing of an NDA for a Licensed Product in the Field	\$[***]
EMA accepting for filing of a Marketing Authorization Application for a Licensed Product in the Field	\$[***]
A Regulatory Authority in Asia accepting for filing of an NDA for a Licensed Product in the Field	\$[***]
FDA approving an NDA for a Licensed Product in the Field	\$[***]
EMA approving Marketing Authorization Application for a Licensed Product in the Field	\$[***]
A Regulatory Authority in Asia approving an Regulatory Approval Application for a Licensed Product in the Field	\$[***]

Milestone Event

Milestone Payment

**Milestones Applicable to Gross Sales of each Licensed Product**

Cumulative worldwide Gross Sales equals or exceeds \$[***]	\$[***] upon achievement
Cumulative worldwide Gross Sales equals or exceeds \$[***]	\$[***] upon achievement, but no sooner than 1 <sup>st</sup> day of a new fiscal year after payment of 1 <sup>st</sup> sales performance milestone
Cumulative worldwide Gross Sales equals or exceeds \$[***]	\$[***] upon achievement, but no sooner than 1 <sup>st</sup> day of a new fiscal year after payment of 2 <sup>nd</sup> sales performance milestone
Cumulative worldwide Gross Sales equals or exceeds \$[***]	\$[***] upon achievement, but no sooner than 1 <sup>st</sup> day of a new fiscal year after payment of 3 <sup>rd</sup> sales performance milestone

7.3.1 By way of example, [\*\*\*].

7.3.2 Once OnCore has made any particular Milestone Payment under this Section 7.3 for a particular indication, OnCore shall not be obligated to make any payment under this Section 7.3 with respect to the re-occurrence of the same Milestone Event for such indication, whether or not such re-occurrence is with respect to a different or the same Licensed Product. For the avoidance of doubt, OnCore shall be obligated to make the Milestone Payments under this Section 7.3 with respect to the recurrence of each Milestone Event for each distinct indication.

7.3.3 Once a particular Licensed Product in a particular indication enters clinical development, then in the event of a Change of Control transaction in which all of the equity interests of OnCore are acquired by a Third Party, either in an all cash transaction or in a transaction that includes both cash and non-cash consideration, for an aggregate amount of cash consideration that is at least [\*\*\*] the sum total of the then-unpaid Milestone Payments for such Licensed Product(s), the surviving entity immediately after such Change of Control transaction shall pay to NeuroVive [\*\*\*], within [\*\*\*] after the closing date of such Change of Control transaction. Upon such payment, all Milestone Payments shall be satisfied and no more Milestone Payments shall be made under this Agreement with respect to such Licensed Product(s). Subsequent to such a Change of Control transaction as described above, then with respect to additional Licensed Products or indications for which Milestone Payments have not been paid in accordance with this Section 7.3.3, Milestone Payments payable under this Agreement shall be unaffected by such a Change of Control transaction.

#### 7.4 Royalties.

7.4.1 Royalty Percentages. OnCore shall pay to NeuroVive royalties on Gross Sales at the following rates:

- (a) [\*\*\*] of annual Gross Sales in the Territory during a Contract Year for that portion of the cumulative Gross Sales up to [\*\*\*];
- (b) [\*\*\*] of annual Gross Sales in the Territory during a Contract Year for that portion of the cumulative Gross Sales that is greater than [\*\*\*] and up to [\*\*\*]; and
- (c) [\*\*\*] of annual Gross Sales in the Territory during a Contract Year for that portion of the cumulative Gross Sales that is greater than [\*\*\*].

7.4.2 Royalty Term. Notwithstanding anything to the contrary, royalties under Section 7.4 shall be payable in respect of a particular Licensed Product in a particular country during the Royalty Term as long as there is a Valid Claim on such Licensed Product in such country.

7.4.3 Reports and Royalty Payments. Within [\*\*\*] after the end of each Contract Quarter commencing in the Contract Quarter immediately following the Contract Quarter in which there was the First Commercial Sale, OnCore shall deliver to NeuroVive a report setting forth for the previous Contract Quarter the following information on a Licensed Product-by-Licensed Product and country-by-country basis: (a) the gross sales and Gross Sales of each Licensed Product, (b) the number of units sold by OnCore and all of its Affiliates and sublicensees, (c) the royalty due hereunder, and (d) the applicable exchange rate. The total royalty due to NeuroVive for the sale of Licensed Products during such Contract Quarter shall be remitted at the time such report is made.

7.5 Payment Provisions.

7.5.1 Taxes and Withholding. If OnCore is required to make a payment to NeuroVive subject to a deduction of tax or withholding tax, the sum payable by OnCore (in respect of which such deduction or withholding is required to be made) shall be made to NeuroVive after deduction of the amount required to be so deducted or withheld, which deducted or withheld amount shall be remitted in accordance with Applicable Laws. Any such withholding taxes required under Applicable Laws to be paid or withheld shall be an expense of, and borne solely by NeuroVive. To the extent OnCore is required to deduct and withhold taxes on any payments to NeuroVive, OnCore shall pay the amounts of such taxes to the proper governmental authority in a timely manner and promptly transmit to NeuroVive an official tax certificate or other evidence of such withholding sufficient to enable NeuroVive to claim such payments of taxes. NeuroVive shall provide to OnCore any tax forms that may be reasonably necessary in order for OnCore not to withhold tax or to withhold tax at a reduced rate under an applicable bilateral income tax treaty. NeuroVive shall use reasonable efforts to provide any such tax forms to OnCore at least thirty (30) days prior to the due date for any payments for which NeuroVive desires that OnCore apply a reduced withholding rate. Each Party will reasonably assist the other Party in claiming tax refunds, deductions, or credits at the other Party's request and will reasonably cooperate to minimize the withholding tax, if available, under various treaties applicable to any payment made under this Agreement.

7.5.2 Payment and Currency Exchange. All amounts payable and calculations hereunder shall be in United States dollars and shall be paid by bank wire transfer in immediately available funds to such bank account as may be designated in writing by NeuroVive from time to time. Whenever for the purposes of calculating the royalties payable under Section 7.4, conversion from any foreign currency shall be required, all amounts shall first be calculated in the currency of sale and then converted into United States dollars by applying the rate of exchange quoted in the New York edition of *The Wall Street Journal* on the last Business Day of the applicable Calendar Quarter.

7.6 Maintenance of Records; Audits.

7.6.1 Record-Keeping. OnCore shall keep, and shall cause its Affiliates and sublicensees to keep, books and accounts of record in connection with the sale of Licensed Products and in sufficient detail to permit accurate determination of all figures necessary for verification of royalties to be paid hereunder. OnCore shall maintain, and shall cause its Affiliates and sublicensees to maintain, such records for a period of at least three (3) years after the end of the Contract Year in which they were generated.

7.6.2 Audits. Upon [\*\*\*]' prior written notice from NeuroVive, OnCore or any of its Affiliates or sublicensees receiving the written notice (the “**Audited Party**”) shall permit an independent certified public accounting firm of nationally recognized standing selected by NeuroVive and reasonably acceptable to the Audited Party, to examine, at NeuroVive’s sole expense, the relevant books and records of the Audited Party and its Affiliates as may be reasonably necessary to verify the amounts reported in accordance with Section 7.4.3 and the payment of royalties hereunder. An examination by NeuroVive under this Section 7.6.2 shall occur not more than once in any Contract Year and shall be limited to the pertinent books and records for any Contract Year ended not more than two (2) years before the date of the request. The accounting firm shall be provided access to such books and records at the Audited Party’s facility(ies) where such books and records are normally kept and such examination shall be conducted during the Audited Party’s normal business hours. The Audited Party may require the accounting firm to sign a standard non-disclosure agreement before providing the accounting firm access to the Audited Party’s facilities or records. Upon completion of the audit, the accounting firm shall provide OnCore, NeuroVive and the Audited Party a written report disclosing any discrepancies in the reports submitted by the Audited Party or, as applicable, the royalties paid, and in each case, the specific details concerning any discrepancies.

7.6.3 Underpayments/Overpayments. If such accounting firm correctly concludes that additional royalties were due to NeuroVive, OnCore shall, if applicable, pay to NeuroVive the additional royalties within [\*\*\*] of the date OnCore receives such accountant’s written report so correctly concluding. If such underpayment exceeds [\*\*\*] of the royalties that were to be paid, OnCore also shall reimburse NeuroVive for [\*\*\*] incurred in conducting the audit. If such accounting firm correctly concludes that OnCore overpaid royalties to NeuroVive, then NeuroVive shall refund such overpayments to OnCore, within [\*\*\*] of the date NeuroVive receives such accountant’s report so concluding.

7.6.4 Confidentiality. All financial information of an Audited Party that is subject to review under this Section 7.6 shall be deemed to be Confidential Information of such Audited Party subject to the provisions of ARTICLE 9, and NeuroVive shall not disclose such Confidential Information to any Third Party or use such Confidential Information for any purpose other than verifying payments to be made by OnCore to NeuroVive hereunder.

## **ARTICLE 8**

### **INTELLECTUAL PROPERTY PROTECTION AND RELATED MATTERS**

#### **8.1 Filing, Prosecution and Maintenance of Patent Rights.**

##### **8.1.1 NeuroVive Patent Rights**

(a) Primary Responsibility. OnCore, through counsel of its choosing and reasonably acceptable to NeuroVive, shall have primary responsibility for and control over obtaining, prosecuting (including any interferences, reissue proceedings and re-examinations), and maintaining throughout the Territory the NeuroVive Patent Rights that relate specifically to hepatitis B in NeuroVive's name, all at OnCore's sole cost and expense. NeuroVive, through counsel of its choosing and reasonably acceptable to OnCore, shall have primary responsibility for and control over obtaining, prosecuting (including any interferences, reissue proceedings and re-examinations), and maintaining throughout the Territory all other NeuroVive Patent Rights all at NeuroVive's sole cost and expense. If necessary, OnCore and NeuroVive will enter into a Client and Billing Agreement with counsel for each Party to allow such counsel to interact with both parties and take direction from the Party with the right to control prosecution and maintenance of the applicable NeuroVive Patent Rights.

(b) Notwithstanding the foregoing, the Party with responsibility for prosecuting a NeuroVive Patent Right (the "**Prosecuting Party**") shall keep the other Party fully informed of patent prosecution activities and shall provide the other Party with copies of material correspondence (including, but not limited to, applications, office actions, responses, etc.) relating to prosecution and maintenance of any NeuroVive Patent Rights under this Agreement. The other Party may provide comments and suggestions with respect to any material actions to be taken by the Prosecuting Party and the Prosecuting Party shall reasonably consider all comments, suggestions and prosecution actions recommended by the other Party.

(c) In order to facilitate a Party's right to comment, the Prosecuting Party shall provide copies of all such official correspondence and any proposed responses by the Prosecuting Party at least thirty (30) days prior to any filing or response deadlines, or within five (5) Business Days of the Prosecuting Party's receipt of any official correspondence if such correspondence only allows for thirty (30) days or less to respond, and the other Party shall provide any comments promptly and in sufficient time to allow the Prosecuting Party to meet applicable filing requirements. In no event shall the Prosecuting Party be required to delay any submission, filing or response past any deadline that is not extendable. The Prosecuting Party agrees to use its Commercially Reasonable Efforts to avoid extension fees, unless agreed to in advance by the Parties, and to take such action as deemed reasonably necessary to preserve pendency of the NeuroVive Patent Rights, including, but not limited to, the filing of any new or continuing patent application and/or payment of any fee necessary to preserve pendency of a pending application.

(d) Common Interest. All information exchanged between the Parties regarding preparation, filing, prosecution or maintenance of the NeuroVive Patent Rights shall be deemed Confidential Information. In addition, the Parties acknowledge and agree that, with regard to such preparation, filing, prosecution and maintenance of the NeuroVive Patent Rights, the interests of the Parties as licensor and licensee are to obtain the strongest patent protection possible, and as such, are aligned and are legal in nature. The Parties agree and acknowledge that they have not waived, and nothing in this Agreement constitutes a waiver of, any legal privilege concerning the NeuroVive Patent Rights, including, without limitation, privilege under the common interest doctrine and similar or related doctrines.

(e) Election Not to Continue Prosecution; Abandonment. If the Prosecuting Party elects (i) not to continue the prosecution (including any interferences and post-grant proceedings) or maintenance of a NeuroVive Patent Right in a particular country in the Territory, or (ii) not to file and prosecute patent applications for the NeuroVive Patent Rights in a particular country following a written request from the other Party to file and prosecute in such country, then the Prosecuting Party shall so notify the other Party promptly in writing of its intention in good time to enable the other Party to meet any deadlines by which an action must be taken to establish or preserve any such rights in such patent in such country and the other Party shall have the right to file for, or continue to prosecute, maintain or enforce, or otherwise pursue such NeuroVive Patent Rights in such country. If OnCore is the Prosecuting Party and NeuroVive so elects to continue to prosecute, maintain or enforce, or otherwise pursue such NeuroVive Patent Rights in such country, such Patent Rights will no longer be considered NeuroVive Patent Rights licensed to OnCore in such country as of the date of OnCore's notice to NeuroVive. If NeuroVive is the Prosecuting Party and OnCore so elects to continue to prosecute, maintain or enforce, or otherwise pursue such NeuroVive Patent Rights in such country, OnCore may setoff all its costs of prosecution and maintenance of the applicable NeuroVive Patent Rights in such country against any amounts payable by OnCore under this Agreement.

8.1.2 Cooperation. Each Party hereby agrees: (a) to make its and its Affiliates' employees, agents and consultants reasonably available to the other Party (or to the other Party's authorized attorneys, agents or representatives), to the extent reasonably necessary to enable such Party to undertake patent prosecution as contemplated by this Agreement; (b) to cooperate, if necessary and appropriate, with the other Party in gaining patent term extensions wherever applicable to Patent Rights that are subject to this Agreement; and (c) to endeavor in good faith to coordinate its efforts with the other Party to minimize or avoid interference with the prosecution and maintenance of the other Party's patent applications that are subject to this Agreement.

## 8.2 Enforcement of Patent Rights.

8.2.1 Notification. Each Party shall promptly report in writing to the other Party during the Term any (a) known or suspected infringement of any NeuroVive Patent Rights or (b) unauthorized use or misappropriation of any Confidential Information, including NeuroVive Intellectual Property, by a Third Party of which it becomes aware, and shall provide the other Party with all available evidence supporting such infringement or unauthorized use or misappropriation.

8.2.2 Rights to Enforce. In respect of Licensed Products in the Field in the Territory, OnCore shall have the first right, but not the obligation, to take any reasonable measures it deems appropriate to stop infringing activities in the Field in the Territory, including (a) initiating or prosecuting an infringement or other appropriate suit or action against or (b) granting adequate rights and licenses necessary for continuing such activities in the Territory to any Third Party who at any time has infringed, or is suspected of infringing, any NeuroVive Patent Rights, or of using without proper authorization any NeuroVive Know-How claiming or relating to Licensed Products in the Field. In the event that OnCore elects not to take action pursuant to this Section 8.2.2, OnCore shall so notify NeuroVive in writing of its intention within ninety (90) days of OnCore's notice of such infringement activities to enable NeuroVive to meet any deadlines by which an action must be taken to establish or preserve any enforcement rights, and NeuroVive shall have the right, but not the obligation, to take any such reasonable measures to stop such infringing activities by such alleged infringer.

8.2.3 Procedures; Expenses and Recoveries. The Party having the right to initiate any infringement suit under Section 8.2.2 shall have the sole and exclusive right to select counsel for any such suit and shall pay all expenses of the suit, including attorneys' fees and court costs and reimbursement of the other Party's reasonable out-of-pocket expenses in rendering assistance requested by the initiating Party. If required under Applicable Law in order for the initiating Party to initiate and/or maintain such suit, or if either Party is unable to initiate or prosecute such suit solely in its own name or it is otherwise advisable to obtain an effective legal remedy, in each case, the other Party shall join as a party to the suit and will execute and cause its Affiliates to execute all documents necessary for the initiating Party to initiate litigation to prosecute and maintain such action. Notwithstanding the foregoing, if OnCore is the initiating Party and so requests, then NeuroVive shall join as a party to the suit and will execute and cause its Affiliates to execute all documents necessary for OnCore to initiate litigation to prosecute and maintain such action. In addition, at the initiating Party's request, the other Party shall provide reasonable assistance to the initiating Party in connection with an infringement suit at no charge to the initiating Party except for reimbursement by the initiating Party for reasonable out-of-pocket expenses incurred in rendering such assistance. The non-initiating Party shall have the right to participate and be represented in any such suit by its own counsel at its own expense. If the Parties obtain from a Third Party, in connection with such suit, any damages, license fees, royalties or other compensation (including any amount received in settlement of such litigation), such amounts shall be allocated as follows:

(a) in all cases, to reimburse each Party for all expenses of the suit, including attorneys' fees and disbursements, court costs and other litigation expenses; and

(b) any of the remaining amount that relates to Licensed Product shall be [\*\*\*].

8.2.4 Other Infringement Resolutions. In the event of a dispute or potential dispute that has not ripened into a demand, claim or suit of the types described in this Section 8.2 (e.g., actions seeking declaratory judgments and revocation proceedings), the same principles governing control of the resolution of the dispute, consent to settlements of the dispute, and implementation of the settlement of the dispute (including sharing in and allocating the payment or receipt of damages, license fees, royalties and other compensation) set forth in this Section 8.2 shall apply. Each Party shall immediately notify the other Party of any certification of which it becomes aware filed pursuant to 21 U.S.C. § 355(b)(2)(A) or § 355(j)(2)(A)(vii) (or any amendment or successor statute thereto) claiming that a NeuroVive Patent Right or a OnCore Patent Right is invalid or that infringement of such Patent Right will not arise from the development, manufacture, use or sale of any product by a Third Party. The provisions of this Section 8.2 shall thereafter apply as if such Third Party were an infringer or suspected infringer; provided that in the event that OnCore elects not to take action, OnCore shall so notify NeuroVive in writing of its intention within fifteen (15) Business Days of OnCore's notice of such infringement activities to enable NeuroVive to meet any deadlines by which an action must be taken to establish or preserve any enforcement rights.

### 8.3 Claimed Infringement of Third Party Rights.

8.3.1 Notice. In the event that a Third Party at any time provides written notice of a claim to, or brings an action, suit or proceeding against, any Party, or any of such Party's respective Affiliates or sublicensees, claiming infringement of its Patent Rights (including with respect to a Blocking Patent) or unauthorized use or misappropriation of its Know-How, based upon an assertion or claim arising out of the Development, Manufacture or Commercialization of a Licensed Product in the Territory ("**Infringement Claim**"), such Party shall promptly notify the other Party of the Infringement Claim or the commencement of such action, suit or proceeding, enclosing a copy of the Infringement Claim and all papers served. Each Party agrees to make available to the other Party its advice and counsel regarding the technical merits of any such claim at no cost to the other Party and to offer reasonable assistance to the other Party at no cost to the other Party.

8.3.2 Obligation to Defend. OnCore shall have the obligation to defend all Infringement Claims brought against either Party or any of its Affiliates or sublicensees arising out of the Development, Manufacture or Commercialization of a Licensed Product in the Field in the Territory; provided that the foregoing shall not be construed to require OnCore to defend (i) NeuroVive against a breach of NeuroVive's representations and warranties set forth herein, or (ii) NeuroVive, its Affiliates or sublicensees with respect to Manufacturing activities by such parties in the Territory.

#### 8.3.3 Procedure.

(a) To the extent that the Infringement Claim, whether in the form of an assertion by a Third Party or a filed litigation (or other formal dispute resolution procedure), directly relates to a Blocking Patent (a "**Blocking Patent Claim**"), NeuroVive shall have the first right to control any negotiations and discussions with the Third Party to resolve the Blocking Patent Claim by acquiring a license under the Blocking Patent. If NeuroVive is unable to resolve the Blocking Patent Claim by acquiring a license under the Blocking Patent on terms that are commercially reasonable to NeuroVive, in NeuroVive's discretion at no expense to OnCore, then OnCore may negotiate a license with the Third Party under the Blocking Patent in the Territory in the Field and include any royalties or other payments payable thereunder as Infringement Defense Costs under Section 8.3.3(c).

(b) OnCore shall have the sole and exclusive right to select counsel to defend any Infringement Claim brought via litigation or other formal dispute resolution procedure; provided that it shall consult with NeuroVive with respect to selection of counsel for such defense. OnCore shall keep NeuroVive informed, and shall from time to time consult with NeuroVive regarding the status of any such claims and shall provide NeuroVive with copies of all material documents filed in, and all material written communications relating to, any suit brought in connection with such claims. NeuroVive shall also have the right to participate and be represented in any such claim or related suit, at its own expense. OnCore shall not settle any Infringement Claims that would adversely impact any of the NeuroVive Patent Rights (such as invalidation of or narrowing the scope of any claim of any of the NeuroVive Patent Rights) or purport to impose any obligations on NeuroVive, without obtaining the prior written consent of NeuroVive or its Affiliate, as applicable, which consent shall not be unreasonably withheld.

(c) All litigation costs and expenses incurred by OnCore in connection with such Infringement Claim, and all damages payable by OnCore to the Third Party in respect of such Infringement Claims (“**Infringement Defense Costs**”) shall be borne by OnCore; provided that, subject to Section 8.3.3(d):

(i) to the extent the Infringement Claim and related Infringement Defense Costs are directly related to a Blocking Patent, OnCore may deduct such Infringement Defense Costs as incurred against the royalties and milestones that become payable to NeuroVive under Sections 7.3 or 7.4; or

(ii) to the extent the Infringement Claim and related Infringement Defense Costs related to any other allegation, OnCore may deduct half of such Infringement Defense Costs as incurred against the royalties and milestones that become payable to NeuroVive under Sections 7.3 or 7.4.

(d) For any given Contract Quarter, the royalties payable to NeuroVive under Section 7.4 shall not be reduced by the application of Section 8.3.3(c) by more than [\*\*\*] of the royalties otherwise payable to NeuroVive under Section 7.4 (with the undeducted balance of Infringement Defense Costs applied against royalties and milestones payable to NeuroVive under Sections 7.3 or 7.4 in successive Contract Quarters until fully recovered by OnCore).

8.3.4 Limitations. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN SECTION 11.5, THE FOREGOING STATES THE ENTIRE RESPONSIBILITY OF NEUROVIVE AND ONCORE, AND THE SOLE AND EXCLUSIVE REMEDY OF NEUROVIVE OR ONCORE, AS THE CASE MAY BE, IN THE CASE OF ANY CLAIMED INFRINGEMENT OF ANY THIRD PARTY PATENT RIGHTS OR UNAUTHORIZED USE OR MISAPPROPRIATION OF ANY THIRD PARTY’S KNOW-HOW.

#### 8.4 Product Trademarks.

OnCore and/or its Affiliates or sublicensees, as applicable, shall select and own the Product Trademarks for each Licensed Product in the Field in the Territory and shall be solely responsible for filing and maintaining the Product Trademarks in the Field in the Territory (including payment of costs associated therewith). OnCore shall assume full responsibility, at its sole cost and expense, for any infringement of a Product Trademark for a Licensed Product in the Field in the Territory by a Third Party, and shall defend and indemnify NeuroVive for and against any claims of infringement of the rights of a Third Party by the use of a Product Trademark in connection with a Licensed Product in the Field in the Territory.

#### 8.5 Patent Term Extensions in the Territory.

The Parties shall use reasonable efforts to obtain all available supplementary protection certificates (“**SPC**”) and other extensions of Patent Rights (including those available under the Hatch-Waxman Act). Each Party shall execute such authorizations and other documents and take such other actions as may be reasonably requested by the other Party to obtain such extensions. The Parties shall cooperate with each other in gaining patent term restorations, extensions and/or SPCs wherever applicable to Patent Rights. The Party first eligible to seek patent term restoration or extension of any such Patent Rights or any SPC related thereto shall have the right to do so; provided that if in any country the first Party has an option to extend the patent term for only one of several patents, the first Party shall consult with the other Party before making the election. If more than one patent is eligible for extension or patent term restoration, the Parties shall select, in good faith, a strategy that shall maximize patent protection and commercial value for each Licensed Product.

### **ARTICLE 9 CONFIDENTIALITY**

#### 9.1 Confidential Information.

All Confidential Information disclosed by a Party (together with its Affiliates, the “**Disclosing Party**”) to the other Party (together with its Affiliates, the “**Receiving Party**”) before or during the Term shall be used by the Receiving Party solely in connection with the activities contemplated by this Agreement, shall be maintained in confidence by the Receiving Party and shall not otherwise be disclosed by the Receiving Party to any other Person, firm, or agency, governmental or private (other than a Party’s Affiliates), without the prior written consent of the Disclosing Party, except to the extent that the Confidential Information (as determined by competent documentation):

9.1.1 was known or used by the Receiving Party prior to its date of disclosure to the Receiving Party; or

9.1.2 either before or after the date of the disclosure to the Receiving Party, is lawfully disclosed to the Receiving Party by sources other than the Disclosing Party rightfully in possession of the Confidential Information; or

9.1.3 either before or after the date of the disclosure to the Receiving Party, becomes published or generally known to the public (including information known to the public through the sale of products in the ordinary course of business) through no fault or omission on the part of the Receiving Party or its sublicensees; or

9.1.4 is independently developed by or for the Receiving Party without reference to or reliance upon the Confidential Information.

9.1.5 If any of the forgoing 9.1.1 – 9.1.5 are relied upon by the Receiving Party, it is understood and agreed that only the individual elements of Confidential Information subject to any of the foregoing exceptions may be disclosed and not the combination or integration of such elements, unless and until such combination or integration of elements is also subject to any such exception.

9.1.6 In addition, the provisions of this Section 9.1 shall not preclude the Receiving Party from disclosing Confidential Information to the extent such Confidential Information is required to be disclosed by the Receiving Party to comply with Applicable Laws, to defend or prosecute litigation or to comply with governmental regulations, provided that the Receiving Party provides prior written notice of such disclosure to the Disclosing Party and takes reasonable and lawful actions to avoid and/or minimize the degree of such disclosure. NeuroVive and OnCore each agree that they shall provide Confidential Information received from the other Party only to their respective employees, consultants and advisors, and to the employees, consultants and advisors of such Party's Affiliates, who have a reasonable need to know and are bound by confidentiality obligations at least as strict as this ARTICLE 9. In addition, each Party may not disclose the terms of this Agreement (to the extent such terms are confidential) to any Third Party except as required by law and except to actual or prospective investors, acquirers, licensees or strategic partners or to a Party's accountants, attorneys and other professional advisors; provided that such disclosures shall be subject to continued confidentiality obligations at least as strict as this ARTICLE 9.

## 9.2 Public Announcements and Use of Names.

No public disclosure of the existence of, or the terms of, this Agreement may be made by either Party, and no Party shall use the name, trademark, trade name or logo of the other Party in any publicity, news release or public disclosure relating to this Agreement or its subject matter without the prior express written permission of the other Party, except as may be required by law or expressly permitted by the terms hereof. A press release, agreed upon by the Parties, is attached to this Agreement as Schedule 9.2. If a public disclosure is required by any Applicable Law, including in a filing with a governmental authority or stock exchange, the disclosing Party shall provide copies of the disclosure reasonably in advance of such filing or other disclosure, but not later than three (3) Business Days prior to the filing, for the non-disclosing Party's prior review and comment and to allow the other Party a reasonable time to object to any such disclosure or to request confidential treatment thereof.

## ARTICLE 10 TERM AND TERMINATION

### 10.1 Term.

This Agreement shall commence on the Effective Date and on a country-by-country and Licensed Product-by-Licensed Product basis, shall be in full force and effect until the expiration of the last-to-expire Royalty Term of such Licensed Product in such country in the Territory (the "**Term**"). After expiration of the Royalty Term in accordance with 1.63(b) for a Licensed Product in a given country, no further royalties shall be payable in respect of sales of such Licensed Product in such country, and the license granted to OnCore under Section 2.1 shall be a fully paid-up, perpetual, irrevocable, royalty-free license with respect to such Licensed Product in the Field in such country.

## 10.2 Termination for Cause.

### 10.2.1 Cause for Termination.

(a) This Agreement may be terminated in its entirety or on a Licensed Product -by-Licensed Product or country-by-country basis at any time during the Term upon [\*\*\*] prior written notice by a Party if the other Party (the “**Breaching Party**”) is in breach of its material obligations under this Agreement as a whole or on a Licensed Product-by-Licensed Product or country-by-country basis and has not cured such breach for [\*\*\*], measured from the date written notice of such material breach is given to the Breaching Party (“**Date of Notice**”); provided, however, that if such alleged material breach is not reasonably susceptible of cure within such [\*\*\*] period and the Breaching Party uses reasonable and diligent good faith efforts to cure such alleged material breach, such [\*\*\*] period shall be extended as long as is reasonably necessary (but no more than [\*\*\*] from the Date of Notice) and no such termination shall occur for so long as such efforts continue or if such breach is cured (but in each case for no longer than [\*\*\*] from the Date of Notice).

(b) This Agreement may be terminated at any time during the Term by a Party upon the filing or institution of bankruptcy, reorganization (other than a voluntary corporate reorganization), liquidation or receivership proceedings, or upon an assignment of a substantial portion of the assets for the benefit of creditors by the other Party; provided, however, that in the event of any involuntary bankruptcy or receivership proceeding, such right to terminate shall only become effective if the Party consents to the involuntary bankruptcy or receivership, or such proceeding is not dismissed within [\*\*\*] after the filing thereof.

(c) In the event that NeuroVive believes that OnCore has failed to use its Commercially Reasonable Efforts to Develop, Manufacture, and/or Commercialize any Licensed Product at any time in a given country or countries in the Territory, prior to providing a notice of breach under Section 10.2.1(a), NeuroVive shall raise such issue by written notice to OnCore, which shall not constitute a notice of breach. If within [\*\*\*] following OnCore’s receipt of such notice from NeuroVive, NeuroVive believes that OnCore has not remedied the issues identified by NeuroVive in such notice, then (i) OnCore shall provide NeuroVive with a written response specifying, in reasonable detail, how it is using or has begun to use such Commercially Reasonable Efforts, and (ii) the Parties shall discuss such response. Thereafter, if NeuroVive continues to believe that OnCore has not used its Commercially Reasonable Efforts, it may then pursue the remedies provided to it under this Agreement, including Section 10.2.1. Nothing in this Section 10.2.1(c) shall be construed to limit OnCore’s ability to dispute, cure or defend against any such issue, including under Section 10.2.1(a).

10.2.2 Effect of Termination by NeuroVive for Cause. Without limiting any other legal or equitable remedies that NeuroVive may have, if OnCore is the Breaching Party with respect to the applicable Licensed Product(s) in the applicable country(ies) and NeuroVive terminates this Agreement in accordance with Section 10.2.1(a):

(a) With respect to the applicable Licensed Product(s) in the applicable country(ies), NeuroVive may elect to terminate all related licenses granted under this Agreement;

(b) With respect to the applicable Licensed Product(s) in the applicable country(ies), OnCore shall grant an exclusive license in the Field in the applicable countries, with the right to sublicense, and promptly transfer to NeuroVive, or its Affiliates as requested by NeuroVive, and NeuroVive shall assume and thereafter be fully responsible and liable for all of OnCore's right, title and interest in and to:

(i) all Regulatory Materials, Regulatory Approvals, drug master files and clinical trial agreements (to the extent assignable and not cancelled) to the extent related solely to the applicable Licensed Product(s) in the applicable country(ies), including INDs, NDAs and their foreign equivalents;

(ii) OnCore Know How and all other data, including preclinical and clinical data, preclinical and clinical study protocols, all CMC data, standard operating procedures, materials and information of any kind or nature whatsoever, in OnCore's possession or in the possession of its Related Parties to the extent related solely to the applicable Licensed Product(s) in the applicable country(ies);

(iii) all trademarks and product logos related solely to applicable Licensed Product(s) in the applicable country(ies);

(iv) all Licensed Products in its inventory and all unused samples of the applicable Licensed Product and all API then in possession or control of OnCore, each at OnCore's actual cost;

(v) all material information related solely to Commercialization of the Licensed Product(s), provided, however, that NeuroVive shall not use any Promotional Materials containing OnCore's name in connection with the sale of any Licensed Product(s) at any time, including after the termination of this Agreement.

(c) To the extent OnCore or its Affiliates had, prior to such termination, been directly Manufacturing Licensed Product(s), OnCore and NeuroVive shall negotiate in good faith the terms of a supply arrangement pursuant to which OnCore will supply Licensed Product(s) to NeuroVive for [\*\*\*] following the effective date of such termination, and OnCore shall reasonably assist, at NeuroVive's expense, in the transfer of Manufacturing processes to NeuroVive or NeuroVive's designated new manufacturers. In the event that a Third Party Manufactures the Licensed Product(s) on OnCore's behalf, OnCore will use its Commercially Reasonable Efforts to facilitate the assignment of OnCore's contract manufacturing agreement with such Third Party to NeuroVive; provided that OnCore shall not be required to pay any amounts to facilitate such assignment.

(d) NeuroVive may elect to have any agreements to which OnCore is a party providing solely for Development, Commercialization or Manufacturing services for the applicable Licensed Product(s) in the applicable country(ies), such as contract research organization contracts and contract manufacturing organization contracts, assigned to NeuroVive to the extent permitted by such agreements and not cancelled, and thereafter NeuroVive shall indemnify and hold harmless OnCore from any liabilities arising under such agreements from and after the applicable date of assignment and assumption, except to the extent caused by OnCore's actions.

(e) OnCore shall provide to NeuroVive, at no expense to NeuroVive, such additional appropriate technology transfer, transition assistance and post-termination services not otherwise specified in this Section 10.2.2 and reasonably requested by NeuroVive, including, without limitation, such assistance with technology transfer as required to prevent disruptions in Development and Manufacture of Licensed Product.

10.2.3 Effect of Termination by OnCore for Cause. Without limiting any other legal or equitable remedies that OnCore may have, if NeuroVive is the Breaching Party with respect to the applicable Licensed Product(s) in the applicable country(ies) and OnCore terminates this Agreement in accordance with Section 10.2.1(a) solely in the event of a breach by NeuroVive of Article 2, 3 or 9 or Section 8.2 or 11.5, then OnCore may terminate any agreements to which OnCore is a party providing for Development, Commercialization or Manufacturing services for the applicable Licensed Product(s) in the applicable country(ies), such as contract research organization contracts and contract manufacturing organization contracts, and NeuroVive shall indemnify and hold harmless OnCore from any liabilities or obligations arising under such agreements as a result of such terminations.

### 10.3 Termination for Convenience.

#### 10.3.1 OnCore's Termination for Convenience.

(a) OnCore shall have the right to terminate this Agreement, in its entirety or on a Licensed Product-by-Licensed Product or country-by-country basis, upon [\*\*\*] advance written notice to NeuroVive (such termination, an "**Early Termination**"). In the event OnCore terminates this Agreement with respect to any Licensed Product on a country-by-country basis in any of (i) the United States; (ii) the European Union as a whole; or (iii) any country in Asia (as defined in Article 1), and provided that such Licensed Product is covered by a Valid Claim in such terminated country at the time of termination, then this Agreement will be deemed to have been terminated by OnCore in its entirety.

(b) OnCore shall have the right to terminate this Agreement upon a Generic Entry (as defined below) after providing [\*\*\*] written notice NeuroVive. A "**Generic Entry**" shall be deemed to have occurred if any Licensed Product is sold in a country of the Territory and OnCore's Gross Sales of such Licensed Product in such country during any Calendar Quarter following entry of a generic product is reduced by at least [\*\*\*] from the Gross Sales of the Licensed Product in such country in the Calendar Quarter immediately prior to the entry of such generic product into the market.

10.3.2 Effect of Termination for Convenience. If OnCore effects an Early Termination pursuant to Section 10.3.1(a), or (b), the effects of termination set forth in Section 10.2.2 shall apply with OnCore exerting at least the same level of efforts during the notice period as it was expending on Development and Commercialization of Licensed Product prior to a convenience termination consistent with the transition of items to NeuroVive. In addition, if OnCore terminates this Agreement in its entirety under Section 10.3.1(a) prior to the First Commercial Sale of any Licensed Product, OnCore shall pay NeuroVive two million dollars (\$2,000,000).

#### 10.4 Termination for Clinical Failure.

10.4.1 Clinical Failure. Notwithstanding Section 10.3, OnCore may terminate this Agreement in its entirety or on a Licensed Product-by-Licensed Product or country-by-country basis by providing written notice to NeuroVive if, (i) prior to Regulatory Approval of a Licensed Product in the Field in such country, OnCore determines in good faith, using reasonable clinical judgment with the input of the relevant drug safety monitoring board, that there are material concerns regarding the safety of any Licensed Product (a “**Safety Failure**”) or (ii) a Licensed Product fails to substantially achieve any of the primary or secondary efficacy endpoints of any clinical trial involving the Licensed Product (an “**Efficacy Failure**”), provided that OnCore acts in good faith in making such determination and reasonably consults with NeuroVive prior to terminating this Agreement due to an Efficacy Failure. NeuroVive shall have the right engage a neutral arbiter with the requisite expertise to provide an opinion regarding the reasonableness of any determination by OnCore of the existence of a Safety Failure, such opinion to be provided to and considered in good faith by OnCore. The costs and expenses of such arbiter shall be borne initially by NeuroVive; however, if the arbiter finally concludes that OnCore’s determination of the existence of an Efficacy Failure was not made in good faith, then OnCore shall reimburse NeuroVive for the reasonable costs and expenses of such arbiter.

10.4.2 Effect of Termination for Clinical Failure. In the event OnCore terminates this Agreement pursuant to this Section 10.4, the effects of termination set forth in Section 10.2.2(b), (c), (d), and (e) shall apply.

#### 10.5 Rights in Bankruptcy.

All rights and licenses granted under or pursuant to this Agreement, including without limitation ARTICLE 2, are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the Bankruptcy Code or analogous provisions of Applicable Law outside the United States, licenses of right to “intellectual property” as defined under Section 101 of the Bankruptcy Code or analogous provisions of Applicable Law outside the United States (hereinafter “**IP**”). The Parties agree that a Party, as licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code or any other provisions of Applicable Law outside the United States that provide similar protection for IP. Each Party hereby grants to the other Party and its Affiliates a right to obtain possession of and to benefit from a complete duplicate of (or complete access to, as appropriate) any such IP and all embodiments of intellectual property, which, if not already in the other Party’s possession, shall be promptly delivered to it upon the other Party’s written request therefor. The term “embodiments of intellectual property” includes all tangible, electronic or other embodiments of rights and licenses hereunder, including all Licensed Products, all Regulatory Approval Applications and Regulatory Approvals and rights of reference therein, and all Information related to Licensed Products, NeuroVive Patent Rights and NeuroVive Know-How, or OnCore Patent Rights and OnCore Know-How, as applicable. Neither Party shall interfere with the exercise by the other Party or its Affiliates of rights and licenses to IP and embodiments of intellectual property licensed hereunder in accordance with this Agreement, and each Party agrees to reasonably assist the other Party and its Affiliates to obtain the IP and embodiments of intellectual property in the possession or control of Third Parties as reasonably necessary or desirable for the other Party or its Affiliates to exercise such rights and licenses in accordance with this Agreement.

10.6 Return of Confidential Information.

Except to the extent otherwise required by Applicable Law, upon termination of this Agreement, each Party shall promptly return to the other Party, delete or destroy all relevant records and materials in such Party's possession or control containing Confidential Information of the other Party; provided that such Party may keep one copy of such materials for archival purposes only or to determine its continuing rights and/or obligations under this Agreement.

10.7 Effect of Expiration or Termination; Survival.

Expiration or termination of this Agreement shall not relieve the Parties of any obligation accruing prior to such expiration or termination. The provisions of ARTICLE 9 (Confidentiality), ARTICLE 11 (Representations and Warranties; Indemnification) and ARTICLE 12 (Miscellaneous Provisions) and Sections 2.2.3 (Effect of Termination on Sublicenses), Section 10.2.2 (Effect of Termination by NeuroVive for Cause), Section 10.2.3 (Effect of Termination by OnCore for Cause), Section 10.3.2 (Effect of Termination for Convenience) and Section 10.4.2 (Effect of Termination for Clinical Failure) shall survive any expiration or termination of this Agreement. Except as set forth in this ARTICLE 10, upon termination or expiration of this Agreement all other rights and obligations cease. Any expiration or early termination of this Agreement shall be without prejudice to the rights of either Party against the other accrued or accruing under this Agreement before termination.

**ARTICLE 11**  
**REPRESENTATIONS AND WARRANTIES; INDEMNIFICATION**

11.1 Mutual Representations and Warranties.

Each Party represents, warrants and covenants to the other Party that as of the Effective Date of this Agreement:

11.1.1 Corporate Existence and Authority. It is a corporation (in the case of OnCore) and a company (in the case of NeuroVive) duly organized, validly existing and in good standing (or its foreign equivalent) under the laws of its jurisdiction of organization, and has full power and authority to enter into this Agreement and to carry out the provisions hereof.

11.1.2 Authorized Execution; Binding Obligation.

(a) The execution, delivery, and performance of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized and approved by all necessary corporate or company action on its part; and

(b) This Agreement has been duly executed and delivered by it and constitutes a legal, valid, and binding obligation enforceable against it in accordance with this Agreement's terms, except as the same may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws relating to or affecting creditors' rights generally and by general equity principles, including judicial principles affecting the availability of injunction and specific performance.

11.1.3 No Conflicts. The execution, delivery and performance of this Agreement by it does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party and by which it or its assets may be bound.

11.1.4 All Consents and Approvals Obtained. Except as otherwise described in this Agreement, (a) all necessary consents, approvals and authorizations of, and (b) all notices to, and filings by such Party with, all governmental authorities and other Persons required to be obtained or provided by such Party in connection with the execution, delivery and performance of this Agreement have been obtained and provided, except for those government approvals, if any, not required at the time of execution of this Agreement.

11.1.5 Compliance with Law. It shall at all times comply with Applicable Laws in all material respects with respect to the Licensed Products. Neither it nor any of its Affiliates nor any director, officer, agent, employee, consultant of, or other person associated with, or acting on behalf of, it or its Affiliates has (a) made, authorized, offered or promised to make any payment or transfer of anything of value, directly, indirectly or through a third party, to any foreign government official, employee or other representative (including employees of a government owned or controlled entity or public international organization and including any political party or candidate for public office), in violation of any Anti-Bribery Laws, or any law of similar effect in any jurisdiction to which such Person is subject or (b) otherwise taken any action in violation of any Anti-Bribery Laws, or any law of similar effect in any jurisdiction to which such Person is subject. For the purposes of this Section 11.1.5, the acts specified include (x) the making or payment of any illegal contributions, commissions, fees, gifts, entertainment, travel or other unlawful expenses relating to political activity, (y) the direct or indirect payment, gift, offer, promise or authorization to make a payment, gift, offer or promise of, anything of material value to any foreign government representative and (z) the making of any bribe, illegal payoff, influence payment, kickback or other unlawful payment. "**Anti-Bribery Laws**" means the United States Foreign Corrupt Practices Act of 1977 or any other anti-bribery laws, statutes, rules or regulations of any country that may be applicable to a Party, including the United Kingdom Bribery Act 2010 and any anti-bribery and related prohibitions implemented under the Organization for Economic Cooperation and Development Convention on Combating Bribery of Foreign Public Officials in International Business Transactions.

11.1.6 Representations Regarding Debarment and Compliance. Each Party represents, warrants and covenants that neither it nor any of its Affiliates nor any of their respective directors, officers, employees, or consultants, and, to its knowledge based upon reasonable inquiry, any Third Party (and its directors, officers, employees and consultants), in each case who were responsible for the development or whose responsibilities involve the Development or Commercialization of the Product as authorized by this Agreement:

(a) are debarred under Section 306(a) or 306(b) of the FD&C Act;

(b) have been charged with, or convicted of, any felony or misdemeanor under Applicable Laws related to any of the following: (A) the development or approval of any drug product or the regulation of any drug product under the FD&C Act; (B) a conspiracy to commit, aid or abet the development or approval of any drug product or regulation of any drug product; (C) health care program-related crimes (involving Medicare or any state health care program); (D) patient abuse, controlled substances, bribery, payment of illegal gratuities, fraud, perjury, false statement, racketeering, blackmail, extortion, falsification or destruction of records; (E) interference with, obstruction of an investigation into, or prosecution of, any criminal offense; or (F) a conspiracy to commit, aid or abet any of these listed felonies or misdemeanors; and

(c) is excluded, suspended or debarred from participation, or otherwise ineligible to participate, in any United States federal or state health care programs (including convicted of a criminal offense that falls within the scope of 42 U.S.C. §1320a-7 but not yet excluded, debarred, suspended, or otherwise declared ineligible), or excluded, suspended or debarred from participation, or otherwise ineligible to participate, in any United States federal procurement or nonprocurement programs.

## 11.2 NeuroVive Representations and Warranties.

NeuroVive represents and warrants to OnCore that as of the Effective Date of this Agreement:

11.2.1 NeuroVive Intellectual Property. NeuroVive Controls the NeuroVive Intellectual Property existing as of the Effective Date and is entitled to grant the licenses specified herein. The NeuroVive Patent Rights existing as of the Effective Date constitute all of the Patent Rights Controlled by NeuroVive as of the Effective Date that are necessary or useful to practice the NeuroVive Intellectual Property. NeuroVive has not previously licensed, assigned, transferred, conveyed or otherwise encumbered its right, title and interest in the NeuroVive Intellectual Property in a manner that conflicts with any rights granted to OnCore hereunder.

11.2.2 Infringement. To the knowledge of NeuroVive, there is no actual or threatened infringement of the NeuroVive Patent Rights in the Field in the Territory by any Third Party or any other infringement or threatened infringement that would adversely affect OnCore's rights under this Agreement.

11.2.3 NeuroVive Patent Rights. To the knowledge of NeuroVive, the NeuroVive Patent Rights existing as of the Effective Date are subsisting and are not invalid or unenforceable, in whole or in part. There are no claims, judgments or settlements against or amounts with respect thereto owed by NeuroVive or any of its Affiliates relating to the NeuroVive Patent Rights. No claim or litigation has been brought or threatened by any Third Party alleging that (a) the NeuroVive Patent Rights are invalid or unenforceable or (b) the NeuroVive Patent Rights or the licensing or exploiting of the NeuroVive Patent Rights violates, infringes or otherwise conflicts or interferes with any intellectual property or proprietary right of any Third.

11.2.4 Claims; Judgments. To the knowledge of NeuroVive, there are no claims, judgments or settlements against or owed by NeuroVive or pending or threatened claims or litigation relating to the NeuroVive Intellectual Property.

11.2.5 Product Liability. NeuroVive represents and warrants that there is no actual, pending, alleged or, to the knowledge of NeuroVive, threatened product liability action with respect to any Licensed Product anywhere in the world and NeuroVive is not aware of any facts or circumstances that would cause NeuroVive to believe that there is a basis for such a product liability claim.

11.2.6 License Agreements.

(a) Attached to this Agreement as Schedule 11.2.6 are all of the agreements pursuant to which NeuroVive has acquired the NeuroVive Intellectual Property and pursuant to which NeuroVive has any ongoing or future obligations (the "License Agreements"). The License Agreements are valid, binding and in full force and effect and are enforceable by NeuroVive in accordance with their terms. NeuroVive has performed all obligations required to be performed by it to date under the License Agreements and is not in breach of or in default under the License Agreements, and no event has occurred which with the passage of time or giving of notice or both would constitute such a breach or default, and to NeuroVive's knowledge, there is no existing breach or default by any counterparty to a License Agreement and to NeuroVive's knowledge, no event has occurred which with the passage of time or giving notice of or both would constitute such a breach or default by such a counterparty. NeuroVive has not received any notice of breach under any License Agreement, whether or not cured or disputed.

(b) NeuroVive will not at any time during the Term take any action that it knows or should know will result in a breach of any License Agreement and will throughout the Term comply with the terms and provisions of License Agreements in all material respects. NeuroVive will not at any time during the Term terminate any License Agreement without the prior written consent of OnCore. NeuroVive will not agree to any amendment, waiver of rights, or modification of any License Agreement that has, or would reasonably be expected to have, a material negative effect on the rights granted to OnCore under this Agreement or the obligations imposed on OnCore under this Agreement without the prior written consent of OnCore.

11.2.7 Disclosure. NeuroVive has disclosed to OnCore all material information and data (including without limitation all communications with or from the FDA or any other Regulatory Authority) relating to the results of all preclinical studies of any Licensed Product. NeuroVive has provided to OnCore all reports and data collections containing information about adverse safety issues (including adverse drug experiences) related to any Licensed Product of which NeuroVive has knowledge. NeuroVive represents that it has not failed to furnish OnCore with any information requested by OnCore, or intentionally concealed from OnCore any information in NeuroVive's possession which would be reasonably likely to be material to OnCore's decision to enter into this Agreement and undertake the commitments and obligations set forth herein.

11.2.8 Securities.

(a) NeuroVive acknowledges and understands that an investment in OnCore Securities involves substantial risks and that NeuroVive could lose all or a portion of the investment in OnCore Securities.

(b) NeuroVive has such knowledge and experience in financial and business matters so as to be capable of evaluating the merits and risks of its investment in OnCore Securities and NeuroVive is able to bear the economic risk of its investment in OnCore Securities for an indefinite period of time because OnCore Securities are subject to the transfer restrictions contained in the Stockholders Agreement and have not been registered under the Securities Act of 1933 and the rules and regulations promulgated thereunder (as amended from time to time, the "**Securities Act**") or the securities laws of any state of the United States or other applicable jurisdiction.

(c) NeuroVive has had an opportunity to ask questions and receive answers concerning the terms and conditions of the offering of OnCore Securities and has had access to such other information concerning OnCore as NeuroVive has requested. NeuroVive has reviewed, or has had an opportunity to review, copies of (i) the Amended and Restated Certificate of Incorporation of OnCore (ii) the Amended and Restated By-laws of OnCore, (iii) the Amended and Restated Stockholders' Agreement, and (iv) such other documents and instruments as NeuroVive deems necessary in evaluating the purchase of OnCore Securities.

(d) NeuroVive is an "accredited investor" within the meaning of Rule 501(a) of Regulation D under the Securities Act and OnCore Securities to be acquired by it pursuant to this Agreement are being acquired for its own account and not with a view to any distribution thereof or with any present intention of offering or selling any of OnCore Securities in a transaction that would violate the Securities Act or the securities laws of any state of the United States of America or any other applicable jurisdiction.

11.3 Warranty Disclaimer.

EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, TO THE OTHER PARTY WITH RESPECT TO ANY TECHNOLOGY OR OTHER SUBJECT MATTER OF THIS AGREEMENT AND HEREBY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT WITH RESPECT TO ANY AND ALL OF THE FOREGOING. EACH PARTY HEREBY DISCLAIMS ANY REPRESENTATION OR WARRANTY THAT THE DEVELOPMENT, MANUFACTURE OR COMMERCIALIZATION OF ANY LICENSED PRODUCT UNDER THIS AGREEMENT WILL BE SUCCESSFUL.

11.4 No Consequential Damages.

NEITHER PARTY HERETO WILL BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THIS AGREEMENT OR THE EXERCISE OF ITS RIGHTS HEREUNDER, INCLUDING WITHOUT LIMITATION LOST PROFITS ARISING FROM OR RELATING TO ANY BREACH OF THIS AGREEMENT, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. NOTHING IN THIS SECTION 11.4 IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF EITHER PARTY OR TO LIMIT A PARTY'S LIABILITY FOR BREACHES OF ITS OBLIGATION REGARDING CONFIDENTIALITY UNDER ARTICLE 9.

11.5 Indemnification and Insurance.

11.5.1 Indemnification by OnCore. OnCore shall indemnify, hold harmless, and defend NeuroVive, its Affiliates, and their respective equity holders, partners (general and/or limited), managers, directors, officers, employees and agents ("**NeuroVive Indemnitees**") from and against any and all Third Party claims, suits, losses, liabilities, damages, costs, fees and expenses (including reasonable attorneys' fees) (collectively, "**Losses**") arising out of or resulting from, directly or indirectly, (a) any material breach of, or inaccuracy in, any representation or warranty made by OnCore in this Agreement, or any breach or violation of any covenant or agreement of OnCore or any of its Affiliates or sublicensees in or pursuant to this Agreement, (b) the negligence or willful misconduct by or of OnCore or its Affiliates, and their respective directors, officers, employees and agents, and (c) the Development, Manufacturing and/or Commercialization of the Licensed Product by OnCore or its Affiliates or sublicensees (including product liability) during the Term. Furthermore, OnCore shall have no obligation to indemnify the NeuroVive Indemnitees to the extent that the Losses arise out of or result from, directly or indirectly, any material breach of, or inaccuracy in, any representation or warranty made by NeuroVive in this Agreement, or any breach or violation of any covenant or agreement of NeuroVive in or pursuant to this Agreement, or the negligence or willful misconduct by or of any of the NeuroVive Indemnitees, or the Development, Manufacturing and/or Commercialization of any Licensed Product by NeuroVive at any time.

11.5.2 Indemnification by NeuroVive. NeuroVive shall indemnify, hold harmless, and defend OnCore, its Affiliates and their respective equity holders, partners (general and/or limited), directors, managers, officers, employees and agents ("**OnCore Indemnitees**") from and against any and all Losses arising out of or resulting from, directly or indirectly, (a) any material breach of, or inaccuracy in, any representation or warranty made by NeuroVive in this Agreement, or any breach or violation of any covenant or agreement of NeuroVive in or pursuant to this Agreement, (b) the negligence or willful misconduct by or of NeuroVive, its Affiliates, and their respective directors, officers, employees and agents, and (c) the Development, Manufacture, and/or Commercialization of any Licensed Product other than by or on behalf of OnCore or its Affiliates or sublicensees. Furthermore, NeuroVive shall have no obligation to indemnify the OnCore Indemnitees to the extent that the Losses arise out of or result from, directly or indirectly, any material breach of, or inaccuracy in, any representation or warranty made by OnCore in this Agreement, or any breach or violation of any covenant or agreement of OnCore in or pursuant to this Agreement, or the negligence or willful misconduct by or of any of the OnCore Indemnitees.

11.5.3 Indemnification Procedure. In the event of any such claim against any OnCore Indemnitee or NeuroVive Indemnitee (individually, an “**Indemnitee**”), the indemnified Party shall promptly notify the other Party in writing of the claim and the indemnifying Party shall manage and control, at its sole expense, the defense of the claim and its settlement; provided that the failure to so notify promptly shall not relieve the indemnifying Party of its obligations under this Section 11.5 except to the extent of the actual prejudice suffered by such Party as a result of such failure; and further provided that the indemnifying Party shall not have the right to assume the defense of such claim if such claim relates to an Infringement Claim. The Indemnitee shall cooperate with the indemnifying Party and may, at its option and expense, be represented in any such action or proceeding. The indemnifying Party shall not be liable for any settlements, litigation costs or expenses incurred by any Indemnitee without the indemnifying Party’s written authorization. Notwithstanding the foregoing, if the indemnifying Party believes that any of the exceptions to its obligation of indemnification of the Indemnitees set forth in Section 11.5.1 or Section 11.5.2 may apply, the indemnifying Party shall promptly notify the Indemnitees, which shall then have the right to be represented in any such action or proceeding by separate counsel at their expense; provided that the indemnifying Party shall be responsible for payment of such expenses if the Indemnitees are ultimately determined to be entitled to indemnification from the indemnifying Party. The indemnifying Party shall not effect any settlement of any such claims without the consent of the Indemnitee, which consent shall not be unreasonably withheld or delayed.

11.5.4 Insurance. OnCore shall use its Commercially Reasonable Efforts to maintain insurance, including product liability insurance, with respect to its activities hereunder, which may include self-insurance. Such insurance shall be in such amounts and subject to such deductibles as OnCore may reasonably determine based upon standards prevailing in the industry at the time.

## ARTICLE 12 MISCELLANEOUS PROVISIONS

### 12.1 Governing Law.

This Agreement shall be construed and the respective rights of the Parties determined according to the substantive laws of England and Wales notwithstanding the provisions governing conflict of laws of any jurisdiction.

### 12.2 Arbitration; Service of Process.

12.2.1 Jurisdiction. Each Party by its execution hereof, hereby irrevocably agrees to binding arbitration under the auspices of the International Chamber of Commerce to resolve all disputes under or in respect of this Agreement that are not resolved pursuant to Section 12.15 (“**Action**”). The arbitral panel shall be made of a panel of three (3) members, all of whom shall be independent of both of the Parties and shall be knowledgeable in licensing, Development and Commercialization of pharmaceutical products. Each of the Parties shall select one of the members of the arbitral panel (subject to the foregoing qualifications) and the two (2) members selected by the Parties shall select the third (3<sup>rd</sup>) member of the arbitral panel. The Action shall be held in London, England. Any award made by the arbitrators shall may be entered as a judgment in and enforced by any court of competent jurisdiction worldwide. Notwithstanding the previous sentence, a Party may commence any Action in court to obtain emergency or temporary injunctive relief.

12.2.2 Service of Process. Each Party hereby (a) consents to service of process in any Action between the parties arising in whole or in part under or in connection with this Agreement in any manner permitted by the laws of England and Wales, (b) agrees that service of process made in accordance with clause (a) or made by registered or certified mail, return receipt requested, at its address specified pursuant to Section 12.5 (Notices), shall constitute good and valid service of process in any such Action and (c) waives and agrees not to assert (by way of motion, as a defense, or otherwise) in any such Action any claim that service of process made in accordance with clause (a) or (b) does not constitute good and valid service of process.

### 12.3 Assignment.

This Agreement may not be assigned or otherwise transferred, nor may any right or obligation hereunder be assigned or transferred, by either Party without the prior, written consent of the other Party. Notwithstanding the foregoing, (a) NeuroVive may monetize the value of its royalty stream, Milestone Payments and other payments under this Agreement by assigning to a Third Party the right to receive royalties, Milestone Payments and other payments and the right to receive royalty reports from OnCore; provided that NeuroVive gives sixty (60) days' prior written notice to OnCore, and (b) either Party may, without the other Party's consent, assign this Agreement and its rights and obligations hereunder in whole or in part to an Affiliate or pursuant to a Change of Control. The assigning Party shall remain responsible for the performance by its assignee of this Agreement or any obligations hereunder so assigned to such assignee.

### 12.4 Amendments.

This Agreement and the Schedules and Exhibits referred to in this Agreement constitute the entire agreement between the Parties with respect to the subject matter hereof, and supersede all previous arrangements with respect to the subject matter hereof, whether written or oral, including the Confidentiality Agreement. Any amendment or modification to this Agreement shall be made in writing signed by both Parties.

### 12.5 Notices.

Any consent, notice or report required or permitted to be given or made under this Agreement by one of the Parties hereto to the other shall be in writing and (a) delivered by hand, (b) sent by internationally recognized delivery service, (c) sent by registered or certified mail, return receipt requested, postage prepaid, or (d) sent by facsimile transmission confirmed by prepaid, registered or certified mail letter, and shall be deemed to have been properly served to the addressee upon receipt of such written communication, in any event to the following addresses:

If to OnCore:

OnCore Biopharma, Inc.  
3805 Old Easton Road  
Doylestown, PA 18902  
Attention: Chief Legal Officer

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

[\*\*\*  
\*\*\*  
\*\*\*  
\*\*\*  
\*\*\*  
\*\*\*]

If to NeuroVive:

NeuroVive Pharmaceutical AB  
Medicon Village  
Scheelevägen 2  
223 81 Lund  
SWEDEN  
Attention: Chief Executive Officer

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

NeuroVive Pharmaceutical AB  
Karolinska Institutet Science Park  
Fogdevreten 2  
SE-171 65 Solna  
SWEDEN  
Attention: Chief Operating Officer

Either Party may change its address to which notices shall be sent by giving notice to the other Party in the manner herein provided.

#### 12.6 Force Majeure.

The failure of either Party to timely perform any obligation under this Agreement by reason of epidemic, earthquake, riot, civil commotion, fire, act of God, war, terrorist act, strike, flood, or governmental act or restriction, or other cause that is beyond the reasonable control of the respective Party, shall not be deemed to be a material breach of this Agreement, but shall be excused to the extent and for the duration of such cause, and the affected Party shall provide the other Party with full particulars thereof as soon as it becomes aware of the same (including its best estimate of the likely extent and duration of the interference with its activities) and shall use its Commercially Reasonable Efforts to avoid or remove such cause. If the performance of any such obligation under this Agreement is delayed owing to such a force majeure for any continuous period of more than one hundred eighty (180) days, the Parties hereto shall consult with respect to an equitable solution.

12.7 Compliance with Export Regulations.

Neither Party shall export any technology licensed to it by the other Party under this Agreement except in compliance with US export laws and regulations.

12.8 Independent Contractors.

It is understood and agreed that the relationship between the Parties is that of independent contractors and that nothing in this Agreement shall be construed as authorization for either NeuroVive or OnCore to act as agent for the other. Nothing herein contained shall be deemed to create an employment, agency, joint venture or partnership relationship between the Parties or any of their agents or employees for any purpose, including tax purposes, or to create any other legal arrangement that would impose liability upon one Party for the act or failure to act of the other Party. Neither Party shall have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, the other Party, or to bind the other Party in any respect whatsoever.

12.9 Further Assurances.

Each Party hereto agrees to execute, acknowledge and/or deliver such further instruments, and to do all other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

12.10 No Strict Construction.

This Agreement has been prepared jointly and shall not be strictly construed against either Party.

12.11 Headings.

The captions or headings of the sections or other subdivisions hereof are inserted only as a matter of convenience or for reference and shall have no effect on the meaning of the provisions hereof.

12.12 No Implied Waivers; Rights Cumulative.

No failure on the part of NeuroVive or OnCore to exercise, and no delay in exercising, any right, power, remedy or privilege under this Agreement, or provided by statute or at law or in equity or otherwise, shall impair, prejudice or constitute a waiver of any such right, power, remedy or privilege or be construed as a waiver of any breach of this Agreement or as an acquiescence therein, nor shall any single or partial exercise of any such right, power, remedy or privilege preclude any other or further exercise thereof or the exercise of any other right, power, remedy or privilege.

12.13 Severability.

If any provision hereof should be held invalid, illegal or unenforceable in any respect in any jurisdiction, the Parties hereto shall substitute, by mutual consent, valid provisions for such invalid, illegal or unenforceable provisions, which valid provisions in their economic effect are sufficiently similar to the invalid, illegal or unenforceable provisions that it can be reasonably assumed that the Parties would have entered into this Agreement with such valid provisions. In case such valid provisions cannot be agreed upon, the invalidity, illegality or unenforceability of one or several provisions of this Agreement shall not affect the validity of this Agreement as a whole, unless the invalid, illegal or unenforceable provisions are of such essential importance to this Agreement that it is to be reasonably assumed that the Parties would not have entered into this Agreement without the invalid, illegal or unenforceable provisions.

12.14 No Third Party Beneficiaries.

No Person, other than OnCore, NeuroVive and their respective Affiliates and the Indemnitees under ARTICLE 11 and any permitted assignees hereunder, shall be deemed an intended beneficiary hereunder or have any right to enforce any obligation of this Agreement.

12.15 Dispute Resolution.

With respect to any disputes between the Parties concerning this Agreement, the dispute shall be submitted to escalating levels of OnCore and NeuroVive senior management for review. If the dispute cannot be resolved despite such escalation, then the matter may be referred by either Party to the Executive Officers to be resolved by negotiation in good faith as soon as is practicable but in no event later than [\*\*\*] after referral. Such resolution, if any, by the Executive Officers shall be final and binding on the Parties. If the Executive Officers are unable to resolve such dispute within such [\*\*\*] period, each Party will be free to pursue all rights available to it under law or equity, provided that it has complied with this Section 12.15. Notwithstanding the foregoing, either Party may seek emergency or temporary injunctive relief in any court of competent jurisdiction.

12.16 Execution in Counterparts.

This Agreement may be executed in any number of counterparts and by facsimile signature, each of which counterparts, when so executed and delivered, shall be deemed to be an original, and all of which counterparts, taken together, shall constitute one and the same instrument.

12.17 Specific Performance.

In addition to any and all other remedies that may be available at law or in equity, in the event of any breach or threatened breach of Section 2.5 or ARTICLE 9 of this Agreement NeuroVive and OnCore shall be entitled to seek, without the requirement of a bond be posted, specific performance of the agreements and obligations of the parties hereunder and to such other injunctive or other equitable relief as may be granted by a court of competent jurisdiction.

**[Signature page follows]**

IN WITNESS WHEREOF, the Parties have duly executed this Agreement as of the date first set forth above.

NEUROVIVE PHARMACEUTICAL AB

By: /s/ Mikael Brönnegård  
Name: Mikael Brönnegård  
Title: Chief Executive Officer

By: /s/ Greg Batcheller  
Name: Greg Batcheller  
Title: Executive Chairman

ONCORE BIOPHARMA, INC.

By: /s/ Patrick T. Higgins  
Name: Patrick T. Higgins  
Title: Chief Executive Officer

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Schedule 1.43

**NeuroVive Patent Rights**

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]



**Schedule 1.44**

NV556 Structure

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**Schedule 9.2**

**Press Release**

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Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [\*\*\*]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

### RESEARCH COLLABORATION and FUNDING AGREEMENT

This Research Collaboration and Funding Agreement (this "Agreement"), is entered into by and between **OnCore Biopharma, Inc.**, a Delaware corporation ("Company"), and the **Baruch S. Blumberg Institute**, a Pennsylvania not-for-profit company ("Institution"), as of October 29, 2014 (the "Effective Date").

WHEREAS, Institution and its employees have expertise and experience in the research of hepatitis B virus ("HBV") and liver cancer (collectively, the "Field") including, but not limited to, drug discovery and assay development.

WHEREAS, Company founders and employees have expertise discovering, developing and commercializing therapies for liver and viral diseases.

WHEREAS, Company and Institution believe that the technologies researched and/or discovered by Institution may have the potential to be utilized or further developed toward the goal of achieving curative therapies for HBV and liver cancer.

WHEREAS, each of Institution and Company would like Institution to conduct certain research in the Field in collaboration with the Company (the "Collaboration") and with Company's funding and each of Institution and Company believe that a funding arrangement between them would serve their respective interests in a mutually beneficial way.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the receipt and sufficiency of which are hereby acknowledged, Company and Institution hereby agree to be legally bound as follows:

#### 1. **Performance of the Research.**

1.1 Research Plan. Institution and Company shall meet promptly after the Effective Date in order to jointly develop a comprehensive plan of the research to be conducted by the Institute, with funding provided by the Company, pursuant to this Agreement (the "Research Plan" and the research thereunder, the "Research"). The Research Plan shall be agreed upon and executed by each party prior to the commencement of any Research. Upon execution of each Research Plan, it shall become an integral part, and shall be governed by the terms, of this Agreement. The Research Plan may be revised or amended upon the written agreement of the parties hereto.

1.2 The Research Plan shall contemplate one or more research projects (each a "Project"). Each Project shall specify the personnel assigned, Research Milestones (as defined below) to be achieved, and a budget specific to the Project. Each Project shall be documented ("Project Plan") and shall be agreed upon and executed by the parties prior to the commencement of any Research under such Project. Upon execution of each Project Plan, it shall become an integral part, and shall be governed by the terms, of this Agreement. The Company shall have the on-going right to review each Project and Institution's progress against the Research Milestones of the relevant Project Plan. Company may, as a part of such review, propose modifications or alterations to such Project Plan no more often than once every [\*\*\*], which modification or alteration shall be consented to by the Institution in writing before becoming effective, such consent not to be unreasonably withheld or delayed. The parties acknowledge and agree that the data produced pursuant to the Research may be used in regulatory submissions to the FDA or other governmental or regulatory authorities.

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1.3 Research Milestones. Each Project Plan shall contain specific goals and objectives, which shall be reasonably designated by Company in consultation with Institution (“Research Milestones”). Ongoing funding of a research project or program shall be dependent upon achievement of such Research Milestones, as specified in the Project Plan, and Institution or the Principal Investigator shall provide to Company regular reports detailing the progress of the Research again such Research Milestones. Achievement of Research Milestones shall be determined in good faith by the Company.

1.4 Principal Investigator. A “Principal Investigator” shall be designated in each Research Plan and shall be responsible for the administration and supervision of the Research. Only members of the Principal Investigator’s lab, or other representatives of Institution or Company, may assist the Principal Investigator in conducting the Research (each, a “Lab Affiliate”). Each Principal Investigator and Lab Affiliate shall be bound by the terms set forth in this Agreement, shall be an employee of the Institution or Company and shall have an agreement with Institution or Company (as the case may be) to assign his/her intellectual property rights to Institution or Company (as the case may be). If the designated Principal Investigator becomes unable or unwilling to continue the Research for any reason, Institution shall propose a substitute Principal Investigator with comparable qualifications. If the proposed candidate is not available or is not acceptable to Company, Company may propose a substitute Principal Investigator or reallocate funds to an alternate Research Plan by giving written notice thereof to Institution.

1.5 Compliance with Law. Institution and Principal Investigators shall conduct the Research, or cause the same to be done, in accordance with all applicable laws, rules, regulations and guidelines (including good laboratory practices in accordance with 21 CFR Part 58) and the provisions of this Agreement (including the Research Plan), as well as Institution’s internal policies and procedures to the extent they do not conflict with the foregoing. In particular, any animals used in the Research shall be handled, housed and, if applicable, disposed of in accordance with all applicable national, regional and local laws, rules, regulations and guidelines.

1.6 Facilities. Institution shall cause Principal Investigators to perform the Research only at the facility(ies) identified in the Research Plan (the “Facility(ies)”). Institution may not utilize any facility, other than the Facility(ies), for performing any portion of the Research without obtaining Company’s prior written consent, such consent not to be unreasonably withheld or delayed. Institution shall maintain, or cause to be maintained, the Facility(ies), all personal property, equipment, machinery, excipients, materials, systems, intangibles, intellectual property and contract rights in use at the Facility(ies) free of defects, except for defects attributable to wear and tear consistent with the age and usage of such assets, and except for such defects as do not and will not, in the aggregate, materially impair the ability to use such assets in connection with the Research.

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## 2. Funding.

2.1 Budget. Institution shall use its best efforts to comply with the budget set forth in each Research Plan. In the event that the relevant Principal Investigator reasonably believes that additional funds will be required to reach the goals of a Research Plan, written notice shall be provided to the Company and the parties shall meet to discuss amending the Research Plan or its budget. Company shall have final decision-making authority for any such amendment, which shall not be unreasonably withheld.

2.2 Funding and Payment. Subject to the terms of this Agreement, Company shall provide funding under this Agreement in the amount of \$1,000,000 per year for three years and a total of \$3,000,000 over such period. Company shall make the first \$1,000,000 payment to Institute within ten (10) days of the Effective Date. Beginning on the first anniversary of the Effective Date, Company shall make payments to Institution of \$[\*\*\*] within [\*\*\*] after each [\*\*\*] anniversary of the Effective Date. As soon as practicable following an initial public offering of the Company's equity securities in which Company raises at least \$[\*\*\*], Company shall place in escrow the amount of funding under this Section 2.2 that has not at such time already been provided to Institution. Company and Institution shall enter into an escrow agreement prior to any such funds being placed in escrow.

### 2.3 Third Party Funding.

(a) Funding of Research. Institution represents, warrants and covenants to Company that no third party has funded or will fund any part of the Research other than the United States government or an agency thereof (the "US Government") or the Commonwealth of Pennsylvania. In the event that the US Government has funded any portion of any research program that Company also funds pursuant to this Agreement, Institution agrees to promptly notify Company of this fact and provide additional details as reasonably requested by the Company. Institution covenants and agrees, during the Term, not to seek US Government funding for any Research to be performed under this Agreement without the prior written consent of Company, such consent not to be unreasonably delayed or withheld.

(b) Exclusivity. Institution covenants and agrees, during the Term, not to accept funding from any third party, other than the US Government or the Commonwealth of Pennsylvania, to conduct research within the scope of that which is funded by the Company under the then-current Research Plan or any Project Plan. In the event Institution receives an offer from a third party, other than the US Government or the Commonwealth of Pennsylvania, to fund HBV research that is outside the scope of the then-current Research Plan or any Project Plan, Institution agrees to notify the Company of the research plan and funding amount of such offer and Company shall have the option of matching such offer and funding such research itself. Company shall have [\*\*\*] after receiving such notice to notify Institution of its election and, if Company declines to exercise its option or fails to notify Institution of its election, Institution shall be free to accept such offer from such third party. Notwithstanding the foregoing, Institution may continue to conduct "fee-for-service" activities [\*\*\*]. In addition, the Institution owns and operates a Natural Products Library ("NPL") and sells compounds to numerous third parties; neither the sale of any of the compounds comprising the NPL nor any follow-up chemistry or other research activities related to the NPL compounds are governed by this provision.

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### 3. Records, Conferences and Reports.

3.1 Records. Institution shall require the Principal Investigators and the Lab Affiliates to keep appropriate records of the Research, including laboratory notebooks, in accordance with Institution policies, sufficient to properly document the results of the Research and otherwise sufficient to determine identity and dates of inventorship of Inventions. Institution shall make such records available to Company upon no less than two week's notice during Institution's normal business hours.

3.2 Conferences. During the term of this Agreement, the Institution shall cause the Principal Investigators and the Lab Affiliates to meet with representatives of Company at the times and places outlined in the Research Plan (or at such other times and places as may be agreed among them) to discuss the progress and results of the Research, as well as the direction of the Research Plan and any suggested changes thereto.

3.3 Reports. In addition to such conferences, Institution or Principal Investigators shall provide to Company (a) interim written reports no less than [\*\*\*], (b) a draft final written report within [\*\*\*] after completion (or earlier termination) of the Research and (c) a final written report within [\*\*\*] after receipt of Company's comments to the draft final report, which shall be given by Company not later than [\*\*\*] after Company's receipt of the draft final report (collectively, the "Reports"); if this schedule of reports differs from the final version of the Research Plan, the schedule listed in the Research Plan shall be followed. During the performance of the Research, Institution shall also notify Company promptly if the Research reveals any unexpected result or any accident or harm occurs. Company shall own all Reports and data compilations resulting from the Research.

### 4. Confidentiality and Publications.

4.1 Company Confidential Information. Institution warrants that it shall not reveal, publish or otherwise disclose Confidential Information (as defined below) to any third party without the prior written consent of Company as described in Section 4.4 below, however, Institution is permitted to disclose Confidential Information obtained under the terms of this Agreement to Principal Investigators and Lab Affiliates on a need-to-know basis related to the performance of its obligations under this Agreement and only if Principal Investigators and Lab Affiliates are informed by Institution of the confidential nature of such information and of the confidentiality undertakings of Institution contained herein and are bound by confidentiality obligations consistent with those set forth in this Section 4.1. Institution shall require that Principal Investigators and any and all Lab Affiliates having a need-to-know observe these obligations of confidentiality. These obligations of confidentiality and nondisclosure shall remain in effect after the termination or expiration of this Agreement. "Confidential Information" means (a) the results of the Research and (b) any proprietary or confidential information, technical data, trade secrets or know-how, including research, product plans, products, services, customer lists and customers, markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, marketing, distribution and sales methods and systems, sales and profit figures, finances and other business information disclosed to Institution, the Principal Investigators or any Lab Affiliate by or on behalf of Company, either directly or indirectly, whether in writing, orally or by drawings or inspection of documents or other tangible property; provided, that Confidential Information shall not include any of the foregoing items to the extent (i) they are or have become publicly known and made generally available through no wrongful act of Institution, any Principal Investigator or Lab Affiliate, or any other employee or agent of Institution, (ii) was known to Institution prior to disclosure by Company, as evidenced by pre-existing written records promptly provided to Company by Institution or (iii) was disclosed to Institution without an obligation of confidentiality by a third party having a lawful right to make such disclosure.

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4.2 Third Party Information Held by Institution. Institution shall not improperly use or disclose to Company or any of its directors, officers, employees or agents, any confidential information of any current or former client or other person or entity with whom Institution has an agreement or duty to keep such information confidential, and Institution shall not bring onto the premises of Company any such information in any medium unless consented to in writing by such client, person or entity.

4.3 Required Disclosure of Confidential Information. If Institution is required by applicable law or court order to disclose Confidential Information, Institution shall, if permitted by law, give Company prompt written notice of such requirement such that Company shall have the opportunity to apply for a protective order, injunction or for confidential treatment of such Confidential Information. Notwithstanding the foregoing, any information disclosed by Institution pursuant to applicable law or a court order shall remain Confidential Information hereunder, and may not be disclosed under any other circumstances unless and until the Confidential Information so disclosed becomes publicly known and generally available through no wrongful act of Institution.

4.4 Publications. Before Institution, any Principal Investigator or Lab Affiliate shall be permitted to publish or present at symposia or professional meetings any information about the Research, Institution shall furnish to Company a copy of any proposed publication or presentation at least [\*\*\*] in advance of the submission of such proposed publication or presentation. At Company's request, Institution will arrange for an additional delay in publication or presentation, not to exceed [\*\*\*], to enable Company to arrange for filing of patent applications or other intellectual property protection. If the publication or presentation would reveal trade secrets or other Confidential Information that is not patentable, the parties will cooperate to modify the disclosure as appropriate, taking into account the Institution's interests in research collaboration and the Company's commercial interests in the information. Institution shall identify Company as a sponsor of the Research in any such publication. It is understood by Institution that nothing in this Section 4.4 shall grant to Institution the right to publish any Confidential Information of Company, even if such information was furnished to Institution for purposes of the Research.

4.5 Unauthorized Disclosure. Institution shall be responsible for any breach of this Article 4 by any Principal Investigator or Lab Affiliate. Institution shall take reasonable steps to ensure that unauthorized persons do not gain access to Confidential Information. Institution shall promptly notify Company of any unauthorized release of or access to Confidential Information. For clarity, such notice shall not remedy any breach of this Agreement resulting from such unauthorized release or access.

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5. **Inventions.**

5.1 **Inventions.** “Invention” means any idea, invention or discovery, whether or not patented or patentable, that is first conceived, discovered, developed or reduced to practice in the conduct of the activities conducted under this Agreement, including developments, discoveries, compositions, know-how, procedures, technical information, processes, methods, devices, formulae, protocols, techniques, designs, drawings, methodologies, and biological or chemical material. Institution represents, warrants and covenants that, with respect to Institution Inventions (as defined below) and Institution’s interest in Joint Inventions (as defined below) (a) it owns and controls any Invention made by any Principal Investigators and Lab Affiliates or that otherwise arises from the activities conducted under this Agreement or that any Invention will become the sole property of Institution and (b) Institution has the sole right and authority to assign and grant the rights described below.

5.2 **Ownership of Inventions.** Inventorship of Inventions will be determined in accordance with U.S. Patent Law.

- (a) All rights to Inventions made solely by employees of Institution shall belong solely to Institution (“Institution Inventions”).
- (b) All rights to Inventions made solely by employees of Company shall belong solely to Company (“Company Inventions”).
- (c) All rights to Inventions made jointly by employees of Institution and employees of Company shall belong jointly to Institution and Company (“Joint Inventions”).

5.3 **Handling of Inventions.** Institution will promptly and fully disclose to Company any Inventions in which Institution has rights. Company will hold such disclosure in confidence and will not disclose the information to any third party without the consent of Institution. Institution shall have the right to file and prosecute patent applications covering Institution Inventions. Company shall have the right to file and prosecute patent applications covering Company Inventions and Joint Inventions. In the event Company fails to file and prosecute patent applications covering any Joint Invention or advises Institution in writing that it has no interest in a Joint Invention, Institution shall have the right to file and prosecute patent applications covering such Joint Invention and Company shall thereafter forfeit its rights to file and prosecute such patent applications.

6. **Right to License.**

6.1 **Right to License Inventions.** Institution hereby grants Company the sole and exclusive right to obtain an exclusive, royalty-bearing, worldwide and all-fields license under (a) Institution’s rights in any Institution Invention, and (b) Institution’s undivided interest in any Joint Invention. Institution shall notify Company in writing promptly after the conception of any Institution Invention or Joint Invention.

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- 6.2 Invention Election Period. Company will advise the Institution in writing within [\*\*\*] after Institution notifies Company of the existence of any Invention described in Section 6.1 above, together with any supporting data Company may reasonably request [\*\*\*], whether or not it wishes to license such Invention (“Invention Election Period”); provided that, in Company’s reasonable determination, there is enough data and information concerning such Invention available to enable Company to make a decision whether or not it wishes to license such Invention and, if not, the Invention Election Period shall be reasonably extended to enable Company to make such decision.
- 6.3 Invention Negotiation Period. Company will have [\*\*\*] from the date of a decision to license any Invention described in Section 5.1 above to conclude a license agreement with Institution (“Invention Negotiation Period”); provided that, at all times during the Invention Negotiation Period, Institution responds in a timely fashion and, if not, the Invention Negotiation Period shall be reasonably extended to accommodate any delays.
- 6.4 License Terms. Any license agreement negotiated pursuant to this Article 6 will contain commercial terms (if appropriate as to stage of development and type of patent claims, the parties shall use those terms set forth in Exhibit A), will require diligent performance by Company for the timely commercial development and marketing of the licensed Invention, and include Company’s obligation to reimburse Institution’s reasonable patent costs for all Inventions subject to the license.
- 6.5 Exclusivity. Until the earlier of an Invention Election Period for a certain Invention ending without Company exercising its right to negotiate a license, or the completion of the Invention Negotiation Period for a certain Invention ending without an executed license, Institution shall not directly or indirectly, through any officer, employee, agent, representative, advisor, director or otherwise, take any action to solicit, initiate, seek, encourage or support any inquiry, proposal or offer from, or furnish any information to, or participate in any negotiations with, any person, corporation, or other entity or group (other than Company and its affiliates) regarding any transaction involving such Invention or any transaction that would directly or indirectly frustrate or prevent the occurrence of the above described transaction with Company.
- 6.6 Right of Refusal. If the Invention Negotiation Period for a certain Invention ends without an agreement being entered into between Institution and Company regarding such Invention, then, during the Term and for a period of twelve months thereafter, Institution hereby grants to Company a right of refusal that grants Company the right to match any definitive offer from a third party for a license under Institution’s rights in such Invention and, if Company agrees to match all financial and other material terms of such definitive offer within [\*\*\*] of Institution providing such definitive offer to Company, then Institution shall proceed with such definitive offer only with Company and not any third party.
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6.7 Institution's Right to License. In the event that Company fails to file and prosecute at least one patent application covering any Joint Invention or advises Institution in writing that it has no interest in a Joint Invention, then Institution shall have the same rights as the Company, as set forth in this Article 6 *mutatis mutandis*, with respect to such Joint Invention, except that Exhibit A shall not apply to such Joint Invention and Company shall share [\*\*\*] in any revenues, less expenses, received by Institution derived from the Joint Invention.

7. **Inspections; Remedy.**

7.1 Inspections by Governmental Authority. If any governmental or regulatory authority conducts or gives notice to Institution of its intent to conduct an inspection or audit at Institution's facility or to take any other regulatory action with respect to any of Institution's activities hereunder, Institution shall promptly notify Company of such a demand or request. Company shall have the right to consult with Institution regarding the inspection or audit by any such governmental or regulatory authority and, if permitted by law, to be present at any such inspections and to review in advance any responses to be given by Institution to such governmental or regulatory authority. Institution agrees to promptly inform Company of the issuance of any FDA Form 483 or any equivalent regulatory action by any other regulatory authority concerning any aspect of any the Research.

7.2 Inspection by Company. During the term of this Agreement, for the purpose of permitting a quality and compliance audit, including, without limitation, to ascertain compliance with this Agreement, Institution shall grant to authorized representatives of Company upon reasonable notice, access to facilities, personnel and records being used, or relating to, activities hereunder. During such examination or audit, Company representatives may examine documents, facilities, records and any other relevant items relating to the Research and the procedures and methodology followed in the performance of the Research. If any audit, inspection, or other regulatory action reveals a deficiency in Institution's performance of the Research that causes all or any part of the Research to be invalid, Institution shall immediately repeat such Research at Institution's sole cost.

8. **Term and Termination.**

8.1 Term. The term of this Agreement (the "Term") commences on the Effective Date and shall continue in effect until the third anniversary of the Effective Date, unless sooner terminated in accordance with the provisions of Section 8.2. Notwithstanding the foregoing, Company shall have the option to extend the Term for one (1) additional three (3) year term at a funding level of \$[\*\*\*] per year. Any further extensions of the Term shall be at the mutual option of Company and Institution.

8.2 Termination. Either party may terminate this Agreement for the material breach or default of any of the terms or conditions of this Agreement by the other party upon [\*\*\*] written notice and opportunity to cure; and such termination shall be in addition to any other remedies that either Party may have at law or in equity.

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8.3 **Obligations upon Termination.** Upon expiration or termination of this Agreement, in addition to its other obligations hereunder, Institution shall return to Company all Confidential Information that was provided or generated by Company during the Term or which Company may otherwise own or control by operation of this Agreement, or destroy or completely delete such Confidential Information, at Company's option. With respect to each item of Confidential Information destroyed or completely deleted, such destruction or complete deletion shall be certified in writing to Company.

8.4 **Effects of Termination.** Termination of this Agreement by either party shall not affect the rights and obligations of the parties accrued prior to the effective date of termination. No termination of this Agreement, however effectuated, shall release the parties, the Principal Investigators, or any Lab Affiliate having access to Confidential Information from their respective rights and obligations under Article 4.

9. **Miscellaneous.**

9.1 **Governance.** In furtherance of the Collaboration, during the Term the Company shall have the right to receive notice of and attend meetings of the Board of Directors of the Institution.

9.2 **Mutual Representations.** Each party hereto hereby represents, warrants and covenants to the other that: (a) it is a corporation duly incorporated, validly existing and in good standing; (b) it has taken all necessary actions on its part to authorize the execution, delivery and performance of the obligations undertaken in this Agreement, and no other corporate actions are necessary with respect thereto; (c) it is not a party to any agreement or understanding and knows of no law or regulation that would prohibit it from entering into and performing this Agreement, or that would conflict with this Agreement; (d) when executed and delivered by it, this Agreement will constitute a legal, valid and binding obligation of it, enforceable against it in accordance with this Agreement's terms; and (e) it is duly licensed, authorized or qualified to do business and is in good standing in every jurisdiction in which a license, authorization or qualification is required for it to perform its obligations under this Agreement.

9.3 **Indemnification.** Institution shall indemnify, defend and hold-harmless Company for, from and against all costs, fees (including reasonable attorney's fees), expenses, losses and other damages arising from (a) any injury to person or damage to property caused by acts or failure to act on the part of Institution, Principal Investigators or Lab Affiliates, (b) any breach of this Agreement by Institution, Principal Investigators or Lab Affiliates, or (c) Institution's, any Principal Investigators' or any Lab Affiliate's negligence or willful misconduct. Company shall indemnify, defend and hold-harmless Institution for, from and against all costs, fees (including reasonable attorney's fees), expenses, losses and other damages arising from (a) any injury to person or damage to property caused by Company, (b) any breach of this Agreement by Company, or (c) Company's negligence or willful misconduct.

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9.4 **Insurance.** During the term of this Agreement and for [\*\*\*] thereafter, Institution shall maintain insurance with a reputable insurance provider in the amount of [\*\*\*], to cover its indemnification obligations hereunder. Upon Company's request, Institution shall provide to Company a certificate of insurance showing that such insurance is in place. Institution shall not cancel or amend its insurance policies without Company's prior consent.

9.5 **Independent Status.** Institution shall not be considered a partner, co-venturer, agent, employee, or representative of Company by reason of this Agreement, but shall remain in all respects an independent contractor, and neither party shall have any right or authority to make or undertake any promise, warranty or representation, to execute any contract or otherwise to assume any obligation in the name of or on behalf of the other party. Institution's employees, including the Principal Investigators and the Lab Affiliates, are not and shall not be deemed to be employees of Company, and Institution shall indemnify and hold harmless Company from all liabilities arising from any allegation or determination to the contrary.

9.6 **Notices.** All notices and other communications required or permitted hereunder shall be in writing and deemed to have been given when hand delivered, sent by facsimile or mailed by registered or certified mail or overnight courier with tracking capabilities, as follows or as a party may otherwise notify to the other in accordance with this Section 9.6 (provided that such notice of change of address or recipient shall be deemed given only when received):

***If to Company, to:***

OnCore Biopharma, Inc.  
PA Biotechnology Center of Bucks County  
3805 Old Easton Road  
Doylestown, PA 18902  
Attention: Chief Legal Officer

***If to Institution:***

Baruch S. Blumberg Institute  
3805 Old Easton Road  
Doylestown, PA 18902  
Attention: Timothy Block, President

9.7 **Assignment; No Third Party Beneficiaries.** Company may assign this Agreement without the prior written consent of Institution in the event of an acquisition or other business combination or a sale of all or substantially all of Company's assets to which this Agreement relates. Institution hereby acknowledges and agrees that the duties and responsibilities hereunder are of a personal nature and, therefore, neither this Agreement nor any right or obligation hereunder shall be assignable or delegable in whole or in part by Institution. All of the terms and provisions of this Agreement shall be binding upon, and inure to the benefit of and be enforceable by, the respective successors and permitted assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer on any person or entity, other than the parties or their respective successors and permitted assigns, any benefits, rights or remedies.

9.8 **Construction.** This Agreement shall be construed, governed, interpreted, and applied in accordance with the laws of the Commonwealth of Pennsylvania exclusive of its conflicts of laws provisions. The failure to enforce any right or provision herein shall not constitute a waiver of that right or provision. If any provisions herein are found to be unenforceable on the grounds that they are overly broad or in conflict with applicable laws, it is the intent of the parties that such provisions be replaced, reformed or narrowed so that their original business purpose can be accomplished to the extent permitted by law, and that the remaining provisions shall not in any way be affected or impaired thereby.

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9.9 Dispute Resolution. If a dispute arises between the parties concerning any right or duty under this Agreement, then the parties will confer, as soon as practicable, in an attempt to resolve the dispute. If the parties are unable to resolve the dispute amicably, then the parties will submit to the exclusive jurisdiction of, and venue in, the state and Federal courts located in the Eastern District of Pennsylvania with respect to all disputes arising under this Agreement.

9.10 Equitable Relief. Institution agrees that it would be impossible or inadequate to measure and calculate Company's damages from any breach of the covenants set forth in Articles 4 and 5, and that a breach of such covenants could cause serious and irreparable injury to Company. Accordingly, Company shall have available, in addition to any other right or remedy available to it, the right to obtain an injunction from a court of competent jurisdiction restraining such a breach (or threatened breach) and to specific performance of any such Section.

9.11 Entire Agreement, Amendment and Waiver. This Agreement contains the entire understandings of the parties and supersedes all previous agreements (oral and written), negotiations and discussions with respect to the subject matter herein. The parties may modify any of the provisions hereof only by an instrument in writing duly executed by the parties. No waiver of any rights under this Agreement shall be effective unless in writing signed by the party to be charged.

9.12 Severability. In the event of the invalidity of any provisions of this Agreement containing any gaps, the parties agree that such invalidity or gap shall not affect the validity of the remaining provisions of this Agreement. The parties will replace an invalid provision or fill any gaps with valid provisions, which most closely approximate the purpose and economic effect of the invalid provision or, in the case of a gap, the parties' presumable intentions.

9.13 Further Assurances. Each party shall, as and when reasonably requested by the other party, do all acts and execute all documents as may be reasonably necessary to give effect to the provisions of this Agreement.

9.14 Interpretation. The headings in this Agreement are intended solely for convenience or reference and shall be given no effect in the construction or interpretation of this Agreement. This Agreement shall be construed as if both parties drafted it jointly, and shall not be construed against either party as principal drafter.

9.15 Counterparts. This Agreement may be executed in two or more counterparts, including by facsimile, each of which shall be deemed to be an original as against any party whose signature appears thereon, but all of which together shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound, have duly executed this Agreement as of the Effective Date.

---

/s/ Michael J. Sofia

Authorized Signature

Name: Michael J. Sofia, Ph.D.

Title: CSO and Head of R&D

Date: 10/29/2014

/s/ Timothy Block

Authorized Signature

Name: Timothy Block, Ph.D.

Title: President

Date: 10/29/2014

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**EXHIBIT A  
LICENSE TERMS**

**Compound Series with Composition of Matter Claims:**

- Upfront Payment: \$100,000 upon execution of a License Agreement.
- Development Milestone Payments:

MILESTONE	PAYMENT
Nomination of pre-clinical candidate	\${***}
File IND in the US (or equivalent in a major market)	\${***}
Positive data from a phase 1b POC clinical trial in infected patients	\${***}
Enrollment of the first patient in the first Phase 2 trial that enables Phase 3	\${***}
Enrollment of the first patient in the first Phase 3 clinical trial	\${***}
File NDA or equivalent in a major market	\${***}
Approval of NDA or equivalent in a major market	\${***}

- Sales Performance Milestone Payments:

Sales Performance Milestones	Payment	Payable
Cumulative Worldwide Net Sales ≥ \${***}	\${***}	Upon achievement
Cumulative Worldwide Net Sales ≥ \${***}	\${***}	Upon achievement, but no sooner than 1 <sup>st</sup> day of a new fiscal year after payment of 1 <sup>st</sup> sales performance milestone
Cumulative Worldwide Net Sales ≥ \${***}	\${***}	Upon achievement, but no sooner than 1 <sup>st</sup> day of a new fiscal year after payment of 2 <sup>nd</sup> sales performance milestone
Cumulative Worldwide Net Sales ≥ \${***}	\${***}	Upon achievement, but no sooner than 1 <sup>st</sup> day of a new fiscal year after payment of 3 <sup>rd</sup> sales performance milestone

- Royalty Payment: [\*\*\*]% on Net Sales

**Method of Use Patent Only:**

- Development Milestone Payments:

MILESTONE	PAYMENT
File NDA or equivalent in a major market	\${***}
Approval of NDA or equivalent in a major market	\${***}

- Royalty Payment: [\*\*\*]% on Net Sales

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [\*\*\*]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

**STOCK PURCHASE AGREEMENT**

**BY AND AMONG**

**ONCORE BIOPHARMA, INC.**

**AND**

**EACH OF THE STOCKHOLDERS OF  
ENANTIGEN THERAPEUTICS, INC.**

**DATED AS OF OCTOBER 1, 2014**

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## STOCK PURCHASE AGREEMENT

This Stock Purchase Agreement (this "Agreement") is made and entered into as of October 1, 2014, by and among OnCore Biopharma, Inc., a Delaware corporation ("Buyer"), and Pharmabridge, Inc., a Pennsylvania corporation, and Hepatitis B Foundation, a Pennsylvania non-profit foundation (each, a "Stockholder" and together, the "Stockholders").

### RECITALS

A. Enantigen Therapeutics, Inc., a Delaware corporation (the "Company") has issued and outstanding 1,197 shares of common stock, \$0.001 par value (the "Common Stock"), and no other equity securities. All of the Common Stock is owned by the Stockholders in the amounts set forth opposite each Person's name on Exhibit 2.1 attached hereto (the "Stockholder Percentages").

B. Buyer desires to purchase and the Stockholders desire to sell all of the Common Stock, which constitutes one hundred percent (100%) of the outstanding capital stock of the Company, on the terms and subject to the conditions set forth in this Agreement.

### AGREEMENT

NOW, THEREFORE, in consideration of the mutual representations, warranties, covenants, and agreements contained herein and for other good and valuable consideration, the receipt, adequacy and sufficiency of which is hereby acknowledged, and upon the terms and subject to the conditions hereinafter set forth, the parties hereto, intending to be legally bound hereby, agree as follows:

### ARTICLE I

#### CERTAIN DEFINITIONS

As used in this Agreement, the following initially capitalized terms, whether used in the singular or plural form, shall have the meanings set forth in this ARTICLE I or throughout this Agreement:

1.1. "Action" means any litigation, suit, claim, charge, action, proceeding or investigation, whether in contract or tort or otherwise.

1.2. "Affiliate" of a Person means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person.

1.3. "Ancillary Agreement" means any agreement, exhibit or certificate executed and delivered in accordance with or required by this Agreement, and any other agreement or certificate specifically identified as an Ancillary Agreement for purposes of this Agreement.

1.4. "business day" means any day other than a day on which banks in the State of Delaware are required or authorized to be closed.

1.5. “Capsid Compound” means a compound that inhibits HBV capsid assembly.

1.6. “Capsid Product” means a pharmaceutical composition containing, consisting of or comprising a Capsid Compound as an active pharmaceutical ingredient, as monotherapy or in combination therapy, for which either (a) the manufacture, use or sale of which is covered by a Valid Claim of an Earn-Out Patent or (b) contains one or more of the Capsid Compounds set forth on Exhibit 1.6.

1.7. “cGMP” means the Good Laboratory Practice requirements under applicable Laws for nonclinical laboratory studies that support or are intended to support applications for research or marketing permits for products regulated by the U.S. Food and Drug Administration or comparable Governmental Authorities, including as set forth in 21 C.F.R. Part 58, applicable FDA guidance and EC Directives 87/18/EEC, 88/320/EEC and 1999/11/EC, and as otherwise required for similar activities by the applicable Governmental Authority in any jurisdiction in the world.

1.8. “Code” means the Internal Revenue Code of 1986, as amended.

1.9. “Company Intellectual Property Rights” means all Intellectual Property Rights owned, in whole or part, by the Company.

1.10. “Company Products” means all “drugs” and “biologics” as those terms are defined in the Food Drug and Cosmetic Act and Public Health Services Act, including all biological, pharmaceutical and drug candidates, compounds, reagents, assays or products and any antibody or other prophylactic agent directed at a specific antigen or other target or in any disease indication area that is being researched, tested, manufactured, distributed or developed by the Company, including any HBsAg Product and/or Capsid Product.

1.11. “Contracts” means all written or oral agreements, contracts or commitments of the following types to which the Company is a party or by which the Company or any of its properties or assets is bound as of the date hereof and between the date hereof and the Closing Date: (a) real property leases; (b) labor or employment-related agreements; (c) joint venture and limited partnership agreements; (d) mortgages, indentures, loan or credit agreements, security agreements and other agreements and instruments relating to the borrowing of money or extension of credit in excess of \$[\*\*\*]; (e) agreements for the sale of materials, goods or products or performance of services by or with any vendor (or any group of related vendors) that had annual aggregate payments exceeding \$[\*\*\*] in any of the last [\*\*\*] calendar years; (f) lease agreements for machinery and equipment, motor vehicles, or furniture and office equipment or other personal property by or with any vendor (or any group of related vendors) that had annual aggregate payments exceeding \$[\*\*\*] in any of the last [\*\*\*] calendar years; (g) agreements or other instruments (excluding purchase orders entered into in the ordinary course of business consistent with past practice) providing for, or reasonably likely to lead to, payments (whether fixed, contingent or otherwise) by or to the Company in an aggregate amount of \$[\*\*\*] or more during the [\*\*\*] month period after the date hereof; (h) agreements restricting in any manner the right of the Company to compete with any other person, restricting the right of the Company to sell to or purchase from any other person, restricting in any manner the right of any other person to compete with the Company, or restricting the right of any other person to sell or purchase

from the Company; (i) agreements with any Affiliate of the Company; (j) agreements with any governmental entity or authority; (k) guaranties, performance, bid or completion bonds, surety and appeal bonds, return of money bonds, and surety or indemnification agreements; (l) custom bonds and standby letters of credit; (m) license agreements or other agreements regarding any Intellectual Property Rights (including agreements pursuant to which the Company is granted licenses Intellectual Property Rights from any third party (other than off-the shelf software licensed under shrink wrap agreements) and agreements pursuant to which the Company grants licenses of Intellectual Property Rights to any third party); (n) agreements, contracts or commitments which cannot be terminated by the Company on notice of [\*\*\*] calendar days or less and without payment by the Company of less than \$[\*\*\*] upon such termination; (o) sales agent agreements; (p) distribution agreements; (q) powers of attorney; and (r) agreements relating to the acquisition or disposition of any business or division of a business or its assets outside the ordinary course of business, including any securities purchase agreements, asset purchase agreements, merger agreements, business combination agreements and any earn-out or agreement for the deferred payment of purchase price entered into in connection therewith.

1.12. “control” (including the terms “controlled by” and “under common control with”) means the possession, directly or indirectly or as trustee or executor, of the power to direct or cause the direction of the management or policies of a Person, whether through equity ownership, as trustee or executor, by contract or credit arrangement or otherwise.

1.13. “Debt” means all principal, interest, premiums or other obligations of the Company related to: (a) all outstanding liabilities, including, but not limited to, the Unpaid Transaction Fees and Expenses, and any indebtedness for borrowed money; (b) all obligations for the deferred purchase price of property or services (other than trade accounts payable in the ordinary course of business and consistent with past practice); (c) all obligations evidenced by notes, bonds, debentures or other similar instruments, and the amount of all checks drawn in excess of balances; (d) all indebtedness created or arising under the conditional sale or other title retention agreement with respect to acquired property; (e) all obligations as lessee or lessees under leases that have been or should be, in accordance with GAAP, recorded as capital leases; (f) all obligations, contingent or otherwise, under acceptance, letter of credit or similar facilities; (g) all obligations pursuant to factoring agreements for accounts receivable; (h) all Debt of Persons other than the Company of the type referred to in clauses (a) through (g) above that is guaranteed directly or indirectly in any manner, or in effect guaranteed directly or indirectly through an agreement with the Company; (w) to pay or purchase such Debt or to advance or supply funds for the payment or purchase of such Debt, (x) to purchase, sell or lease (as lessee or lessor) property, or to purchase or sell services, primarily for the purpose of enabling the debtor to make payment of such Debt or to assure the holder of such Debt against loss, (y) to supply funds to or in any other manner invest in the debtor (including any agreement to pay for property or services irrespective of whether such property is received or such services are rendered) or (z) otherwise to assure a creditor against loss; (i) all Debt of the type referred to in clauses (a) through (g) above that is secured by (or for which the holder of such Debt has an existing right, contingent or otherwise, to be secured by) any lien on property (including accounts and contract rights) owned by the Company, even though such person has not assumed, become liable for or guaranteed the payment of such Debt, provided, that such Debt referred to in this clause (i) is of the type that would be reflected as debt on a balance sheet prepared in accordance with GAAP; and (j) all accrued but unpaid interest (or interest equivalent) to the date of determination, and all prepayment premiums, penalties, costs and expenses related to any items of Debt of the type referred to in clauses (a) through (i) above that would be required to be paid to extinguish the Debt at the Closing.

1.14. “Earn-Out Patent” means any Patent that is either (i) owned in whole or in part by Company at the Closing Date; or (ii) licensed to Company at the Closing Date under the Blumberg Institute and Drexel University Patent License Agreement, dated October 8, 2013, the Blumberg Institute and Drexel University Patent License Agreement, dated October 18, 2013 or the Blumberg Institute and Drexel University Patent License Agreement, dated September 24, 2014.

1.15. “Earn-Out Product” means a Capsid Product and/or a HBsAg Product.

1.16. “EMA” means the European Medicines Agency and any successor agency thereto.

1.17. “Environmental Laws” means all applicable foreign, federal, state, and local laws, rules, regulations, ordinances, the common law, judgments, orders, consent agreements, work practices, standards, and norms relating to: (i) the protection of the environment (including air, surface, and subsurface water, drinking water supplies, surface, and subsurface land, the interior of any building or building component, soil and natural resources) or human health; or (ii) the presence, Management, labeling, packaging, distribution, marketing, Release or threat of Release of or exposure to Hazardous Substances.

1.18. “FDA” means the United States Food and Drug Administration or any successor agency thereto.

1.19. “Final Closing Statement” means: (i) the Closing Statement if no Notice of Disagreement with respect thereto is duly and timely delivered pursuant to Section 2.4(a); or (ii) if such a Notice of Disagreement is so delivered, the Closing Statement as agreed to by the Stockholder Representative and Buyer pursuant to Section 2.4 or, in the absence of such agreement, the Final Closing Statement as prepared by the Arbitrator pursuant to Section 2.4.

1.20. “Final Debt” means the Closing Date Debt: (i) as shown in the Closing Statement if no Notice of Disagreement with respect thereto is duly and timely delivered pursuant to Section 2.4(b) or (y) if such a Notice of Disagreement is so delivered, as agreed to by the Stockholders and Buyer pursuant to Section 2.4; or (ii) if such Notice of Disagreement is so delivered and in the absence of such an agreement, as shown in the Arbitrator’s calculation delivered pursuant to Section 2.4.

1.21. “First HBV Product” means Buyer’s or its Affiliates’ first product indicated for the treatment of HBV which is the subject of a First Commercial Sale.

1.22. “First Commercial Sale” means the first sale to a third party of the First HBV Product in any regulatory jurisdiction after the Regulatory Approval has been obtained in such jurisdiction. For clarity, sales for clinical studies, compassionate use, named patient programs, sales under a treatment IND, test marketing, and any nonregulatory studies where such First HBV Product is supplied with or without charge shall not be a First Commercial Sale; provided, however, that if such First HBV Product which is the subject of such sale is later commercialized by the third party so as to constitute the “First Commercial Sale,” then all amounts received by the Company, Buyer or their respective Affiliates or any licensees or sublicensees from such sale shall be included in “Net Sales.”

1.23. “GAAP” means United States generally accepted accounting principles.

1.24. “GAAP Consistently Applied” means GAAP: (A) using the same accounting methods, policies, practices, and procedures, with consistent classification, judgments, and estimation methodology, as were used by the Company in preparing the Balance Sheet to the extent consistent with GAAP; (B) not taking into account any changes in circumstances or events occurring after the opening of business on the Closing Date, except to the extent such changes provide indications of conditions on the Closing Date; and (C) in no event reducing the respective amounts or reserves and accruals for the Company from the amounts included in the Balance Sheet except to reflect (i) cash payments made by the Company subsequent to the date of the Balance Sheet, and (ii) changes in circumstances or events occurring between the date of the Balance Sheet and the Closing Date, but only if such changes either definitively resolve or otherwise conclusively establish the amount of the liability exposure with respect to which the reserve in question has been established.

1.25. “Governmental Authority” means any international, multi-national, United States or non-United States national, state, regional, provincial, municipal or local government, governmental, regulatory or administrative authority, agency, instrumentality or commission or any court, tribunal, or judicial or arbitral body (or any department, bureau or division thereof).

1.26. “Hazardous Substances” means any and all hazardous or toxic substances, wastes or materials, pollutants or contaminants (including polychlorinated biphenyls, friable asbestos, volatile and semi-volatile organic compounds, oil, petroleum products and fractions, medical waste, and radioactive materials), or any other similar substances, wastes or materials regulated under Environmental Laws.

1.27. “HBsAg Compound” means a compound that inhibits hepatitis B virus surface antigen (HBsAg) secretion.

1.28. “HBsAg Product” means a pharmaceutical composition containing, consisting of or comprising a HBsAg Compound as an active pharmaceutical ingredient, as monotherapy or in combination therapy, for which either (a) the manufacture, use or sale of which is covered by a Valid Claim of an Earn-Out Patent or (b) contains one or more of the HBsAg Compounds set forth on Exhibit 1.28.

1.29. “HBV” means Hepatitis B virus.

1.30. “Intellectual Property Rights” means any and all intellectual and industrial property rights and other similar proprietary rights, in any jurisdiction, whether registered or unregistered, including all rights pertaining to or deriving from: (a) Patents; (b) Know-How; (c) inventions, invention disclosures, discoveries and improvements, whether or not patentable; (d) works of authorship (“Copyrights”); (e) computer software and firmware, including data files, source code, object code and software-related specifications and documentation (collectively “Software”); (f) trademarks, trade names, service marks, certification marks, service names, brands, trade dress, and logos, applications therefore, and the goodwill associated therewith (collectively, “Trademarks”); (g) trade secrets (including those trade secrets defined in the Uniform Trade Secrets Act and under corresponding foreign statutory Law and common law), non-public information, and confidential information, business, technical, and know-how information, and rights to limit the use or disclosure thereof by any Person (collectively “Trade Secrets”); (h) domain names; and (h) proprietary databases and data compilations and all documentation relating to the foregoing; and including in each case any and all (x) registrations of, applications to register, and renewals and extensions of, any of the foregoing with or by any Governmental Authority in any jurisdiction, and (y) past, present, and future claims, defenses, and causes of action arising under any of the foregoing.

1.31. “Interim Period” means the portion of any Straddle Period that ends on the Closing Date.

1.32. “Know-How” means all technical and scientific information, knowledge, technology, means, methods, processes, practices, formulae, sequences, structures, models, instructions, skills, techniques, procedures, compilations, experiences, ideas, technical assistance, designs, drawings, assembly procedures, protocols, computer programs, apparatuses, specifications, data and results, including: biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, pre-clinical, clinical, safety, manufacturing and quality control data and information, including study designs and protocols; assays; and biological methodology; in each case (whether or not confidential, proprietary, patented or patentable) in written, electronic or any other form now known or hereafter developed.

1.33. “knowledge,” “to the knowledge” or “known” and words of similar import mean, with respect to Pharmabridge, Inc., the actual knowledge of Xiaodong Xu and Tong Xiao or the knowledge Xiaodong Xu and Tong Xiao would have had after due inquiry, and with respect to Hepatitis B Foundation, the actual knowledge of Joel Rosen and Timothy Block or the knowledge Joel Rosen and Timothy Block would have had after due inquiry, and with respect to Buyer, the actual knowledge of Patrick Higgins or the knowledge Patrick Higgins would have had after due inquiry.

1.34. “Laws” means any statute, law, constitution, executive order, ordinance, regulation, rule, notice, court decision, order, writ, injunction, judgment, decree, resolution, corporate integrity agreement, stipulation, determination, requirement or rule of law (including common law), code or edict issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Authority.

1.35. “Losses” means any and all losses, liabilities, damages (including punitive damages), penalties, obligations, loss of profits, awards, fines, deficiencies, diminution in value, demands, interest, claims (including third party claims whether or not meritorious), costs, and expenses whatsoever (including reasonable attorneys’, consultants’ and other professional fees and disbursements of every kind, nature and description) resulting from, arising out of or incident to any matter for which indemnification is provided under this Agreement; provided, that Losses shall not include lost profits, punitive or consequential damages unless paid to third parties.

1.36. “Major EU Country” means any of the United Kingdom, France, Germany, Italy, or Spain.

1.37. “Marketing Authorization Application” or “MAA” means an application to the appropriate Regulatory Authority for approval to sell Earn-Out Products (but excluding Pricing Approval) in any particular jurisdiction

1.38. “Material Adverse Effect” means any circumstance or event which, individually or in the aggregate with any other circumstance or event, is or could be reasonably expected to be material and adverse to the business, properties, operations, earnings, prospects, condition (financial or otherwise), products, assets, results of operations or liabilities of the Company. For the purposes of this Agreement, the determination of whether a breach of a representation and warranty or covenant of this Agreement shall be deemed to give rise to a Material Adverse Effect shall be determined on a cumulative basis by adding the effect of the breach of any such representation and warranty or covenant (determined without regard to any materiality or Material Adverse Effect qualifiers) to the effect of all other breaches of representations, warranties and covenants of this Agreement (determined without regard to any materiality or Material Adverse Effect qualifiers) for each of the applicable period or periods to which such representations, warranties or covenants relate, in all cases before applying the materiality standard set forth in the preceding sentence, and then determining whether, for any of the applicable periods, such aggregate sum exceeds the materiality standard set forth in the preceding sentence. For purposes of this definition of Material Adverse Effect, the effect of any matter as to any past period shall be determined based on its actual effect, and its effect as to any future period shall be determined based on the effect that such matter is reasonably likely to have.

1.39. “NDA” means a new drug application or supplemental new drug application or any amendments thereto submitted to the FDA in the United States.

1.40. “Net Sales” means the total amount billed or invoiced on sales of the First HBV Product by the Company, Buyer or its Affiliates or their respective licensees or sublicensees to third parties (including wholesalers and distributors) in bona fide arm’s length transactions, less the following deductions that are not otherwise recoverable by or reimbursable to such selling party:

(a) customary trade, cash, and quantity discounts in the industry that are actually given;

(b) price reductions or rebates, retroactive or otherwise, imposed by, negotiated with and otherwise paid to Governmental Authorities or other payees;

(c) taxes on sales (such as sales, value added or use taxes) to the extent added to the sale price and set forth separately as such in the total amount invoiced;

(d) amounts that do not exceed the original invoice amount that are repaid or credited by reason of rejections, defects, [\*\*\*] of gross sales associated with return goods allowance during such period or recalls, or because of retroactive price reductions, including rebates or wholesaler charge backs;

(e) the portion of administrative fees recorded by the Company, Buyer or its Affiliates or their respective licensees or sublicensees (in accordance with its standard practices) as being paid during the relevant time period to group purchasing organizations, pharmaceutical benefit managers or Medicare prescription drug plans relating to such First HBV Product;

(f) any invoiced amounts from a prior period which are not collected and are written off by the Company, Buyer or its Affiliates or their respective licensees or sublicensees, including bad debts, but not to exceed [\*\*\*] of the gross sales during such prior period;

(g) that portion of the annual fee on prescription drug manufacturers imposed by the Patient Protection and Affordable Care Act, Pub. L. No. 111-148, as amended, and reasonably allocable to sales of the First HBV Products;

(h) pre-paid freight, insurance, and other transportation charges to the extent added to the sale price and set forth separately as such in the total amount invoiced, as well as any fees for services provided by wholesalers and warehousing chains related to the distribution of such First HBV Product; and

(i) any other similar and customary deductions that are required by GAAP.

Net Sales shall not include transfers or dispositions for charitable, promotional, pre-clinical, clinical, regulatory or governmental purposes. Net Sales shall include the amount or fair market value of all other consideration received by Company, Buyer or its Affiliates or their respective licensees or sublicensees in respect of the sale of a First HBV Product, whether such consideration is in cash, payment in kind, exchange or other form. Net Sales shall not include sales between or among Company, Buyer and its Affiliates and their respective licensees and sublicensees.

1.41. “Patents” means (i) pending patent applications, issued patents, utility models and designs and (ii) reissues, substitutions, confirmations, registrations, validations, reexaminations, continuations, continued prosecution applications, continuations-in-part, or divisions of or to any patents, patent applications, utility models or designs.

1.42. “Permit” means all permits, registrations, franchises, grants, authorizations (including marketing and investigational authorizations), licenses, concessions, easements, variances, exceptions, consents, certificates, approvals, and orders of any Governmental Authority.

1.43. “Person” or “person” means an individual, corporation, partnership, association, limited liability company, trust, unincorporated organization, other entity or group (as group is defined in Section 13(d)(3) of the Securities Exchange Act of 1934, as amended).

1.44. “Phase 1b Clinical Trial” means a clinical trial of a pharmaceutical product into infected patients with the primary purpose of determining safety, efficacy, metabolism, pharmacokinetic properties and clinical pharmacology of such product.

1.45. “Phase 2 Clinical Trial” means a clinical trial, as described in 21 C.F.R. §312.21(b), or an equivalent clinical trial in a country other than the U.S., of a pharmaceutical product on patients, including possibly pharmacokinetic studies, the principal purposes of which are to make a preliminary determination that such product is safe for its intended use and to obtain sufficient information about such product’s efficacy to permit the design of further clinical trials.

1.46. “Phase 3 Clinical Trial” means a clinical trial, as described in 21 C.F.R. §312.21(c), or an equivalent clinical trial in a country other than the U.S., undertaken to (i) establish that a drug is safe and efficacious for such Indication; (ii) define warnings, precautions and adverse reactions that are associated with the drug in the dosage range to be prescribed and (iii) support approval of an application to a Regulatory Authority for the commercial sale of such drug.

1.47. “Pre-Closing Tax Period” means any Tax period ending on or before the Closing Date.

1.48. “Pre-Closing Taxes” means all liabilities for Taxes of the Company for Pre-Closing Tax Periods and any Interim Period determined without regard to any carryback of a loss or credit arising after the Closing Date.

1.49. “Pricing Approval” means with respect to a particular country, an approval granted by, or the result of negotiations with, a Regulatory Authority or another competent public or private entity (e.g. health insurance) in relation to the pricing of an Earn-Out Product and/or the reimbursement or assumption of costs for such Earn-Out Product by the relevant government or by such competent public or private entity.

1.50. “Regulatory Approval” means, with respect to a country, any and all approvals, licenses, registrations, or authorizations of any Regulatory Authority required to commercially distribute, sell, or market an Earn-Out Product in such country, including, where applicable, (i) Pricing Approvals in such country, (ii) pre- and post-approval marketing authorizations (including any prerequisite manufacturing approval or authorization related thereto), and (iii) approval of labeling for the Earn-Out Product.

1.51. “Regulatory Authority” means, in a particular country or jurisdiction, any applicable Governmental Authority with the power to confer, limit, condition or revoke Regulatory Approval in such country or jurisdiction.

1.52. “Straddle Period” means any Tax period that includes but does not end on the Closing Date.

1.53. “Unpaid Transaction Fees and Expenses” means all costs, fees, and expenses payable by the Company and not paid prior to the Closing arising under, or in connection with negotiating and entering into this Agreement, except as explicitly set forth in Section 11.6 hereof.

1.54. “Valid Claim” means either (a) a claim of an issued and unexpired patent that (i) has not been canceled, withdrawn, or revoked, (ii) has not been rejected or held unenforceable or invalid by a decision of a court or agency of competent jurisdiction, from which no appeal can be or has been taken within the time allowed for appeal, or (iii) has not lapsed or become abandoned or been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise; or (b) a claim of a patent application wherein said patent application has been pending for less than seven (7) years (calculated from the earliest priority date to which such patent application claims priority).

ARTICLE II  
THE TRANSACTION

2.1. Purchase of Common Stock. At the Closing referred to in Section 3.1 below, each Stockholder will sell and assign to Buyer, and Buyer will purchase from each such Stockholder, the shares of Common Stock set forth opposite such Stockholder's name on Exhibit 2.1 attached hereto, free and clear of all Encumbrances.

2.2. Purchase Price Payment.

(a) Purchase Price. The aggregate purchase price for all of the shares of Common Stock shall be an amount equal to Five Million US Dollars (\$5,000,000), subject to the adjustments set forth in Sections 2.3, 2.4, and 2.5, hereof (the "Aggregate Purchase Price"), which shall be comprised of: (i) Two Million US Dollars (\$2,000,000) (the "Closing Date Cash Purchase Price"), subject to the adjustment set forth in Sections 2.3; (ii) Three Million US Dollars (\$3,000,000) (the "Deferred Payment"), subject to the adjustments set forth in Section 2.4; and (iii) the Earn-Out, subject to the adjustment set forth in Section 2.5.

(b) Payments. At the Closing and subject to Section 2.2(c) below, Buyer shall pay the Closing Date Cash Purchase Price to each Stockholder in the amounts and to the account set forth on Schedule I for distribution to the Stockholders by wire transfer of immediately available funds, subject to Section 2.3 (b) hereof.

(c) Payoff Letters. The Stockholders shall cause the Company to procure and deliver to Buyer prior to the Closing Date customary debt payoff letters and (if applicable) lien releases, in a form reasonably acceptable to Buyer, with respect to any Debt which by its terms is required to be repaid, or is otherwise being repaid, in connection with the Closing and the consummation of the transactions contemplated hereby. Unless otherwise agreed by Buyer, Buyer may deduct from the Closing Date Cash Purchase Price otherwise payable to the Stockholders pursuant to Section 2.2(a) above the amount of Debt payable on the Closing Date in accordance with the payoff letters if Buyer makes payments of such Debt amounts to the applicable counterparties in accordance with the instructions set forth in the debt payoff letters.

2.3. Debt Estimate.

(a) Prior to the Closing Date, Buyer shall have delivered to the Stockholders a good faith estimate of Debt ("Estimated Debt") as of the opening of business on the Closing Date, together with a statement of the calculation of Estimated Debt which shall be determined in good faith in accordance with GAAP Consistently Applied, which calculation shall be reasonably satisfactory to the Stockholders.

(b) The Closing Date Cash Purchase Price shall be decreased dollar for dollar by the amount of Estimated Debt in excess of cash on hand at Closing.

2.4. Closing Statement; Adjustment to Purchase Price.

(a) Within one hundred and twenty (120) calendar days (or such other period to which Buyer and the Stockholder Representative may agree in writing) after the Closing Date, Buyer shall cause to be prepared and shall deliver to the Stockholder Representative a statement (the "Closing Statement") setting forth in reasonable detail: (i) Debt as of the opening of business on the Closing Date ("Closing Date Debt"); and (ii) any proposed adjustment to the Deferred Payment in accordance with Section 2.4(c). The Closing Statement shall be accompanied by a certificate signed by Buyer to the effect that the Closing Statement has been prepared in good faith in accordance with the provisions of this Section 2.4.

Each of the Stockholders and Buyer agrees that it will, and it will use reasonable efforts to cause its respective agents and representatives to, cooperate and assist in the preparation of the Closing Statement and the calculation of the Closing Date Debt and in the conduct of the reviews and dispute resolution process referred to in this Section 2.4.

(b) During the thirty (30) calendar day period following the Stockholder Representative's receipt of the Closing Statement, the Stockholder Representative and its independent accountants shall, at the Stockholder Representative's expense, be permitted to review the working papers and supporting documentation of Buyer and Buyer's independent accountant (the "Independent Accountant") relating to the Closing Statement; provided, that in order to review the Independent Accountant's working papers, the Stockholder Representative and its independent auditors shall execute any releases, waivers or indemnities customarily required by the Independent Accountant in connection therewith. The Closing Statement shall become final and binding upon the parties on the thirtieth (30<sup>th</sup>) calendar day following delivery thereof, unless the Stockholder Representative gives written notice of its disagreement with the Closing Statement complying with this Section 2.4 ("Notice of Disagreement") to Buyer prior to such date. Any Notice of Disagreement shall (i) specify in reasonable detail the nature of any disagreement so asserted, and include all supporting schedules, analyses, working papers and other documentation as shall be prepared by the Stockholder Representative, and (ii) include the proposed adjustment to the Deferred Payment in accordance with Section 2.4(c) based solely on disagreements permitted in Section 2.4(c)(ii). The Stockholder Representative shall be deemed to have agreed with all items and amounts included in the Closing Statement except such items that are specifically disputed in the Notice of Disagreement.

During the thirty (30) calendar day period following the delivery of a Notice of Disagreement that complies with the preceding paragraph or such other period to which Buyer and the Stockholder Representative may agree in writing, the Stockholder Representative and Buyer shall seek in good faith to resolve in writing any differences that they may have with respect to the matters specified in the Notice of Disagreement. If, at the end of such thirty (30) calendar day period (or such other period to which Buyer and the Stockholder Representative may agree in writing), the Stockholder Representative and Buyer have not so resolved such differences, the Stockholder Representative and Buyer shall submit the dispute for resolution to an independent accounting firm (the "Arbiter") for review and resolution of any and all matters which remain in dispute and which were properly included in the Notice of Disagreement. The Arbiter shall be a mutually acceptable independent public accounting firm agreed upon by the Stockholder Representative and Buyer in writing; provided, that in the event the parties are not able to mutually agree on an accounting firm, the Arbiter shall be EisnerAmper LLP. The Stockholder Representative and Buyer shall use reasonable efforts to cause the Arbiter to render a decision resolving the matters in dispute within thirty (30) calendar days following the submission of such matters to the Arbiter, or such other period to which Buyer and the Stockholder Representative may agree in writing. The Stockholder Representative and Buyer agree that the determination of the Arbiter shall be final and binding upon the parties and that judgment may be entered upon the determination of the Arbiter in any court having jurisdiction over the party against which such determination is to be enforced; provided, that the scope of the disputes to be resolved by the Arbiter shall be limited to only such items validly included in the Closing Statement that the Stockholder Representative has disputed in the Notice of Disagreement. The Arbiter shall determine, based solely on presentations by Buyer and the Stockholder Representative and their respective representatives, and not by independent review, only those issues in dispute specifically set forth on the Notice of Disagreement and shall prepare the Final Closing Statement and render a written report as to the dispute and the resulting calculation of Closing Date Debt and Final Adjustment Amount which shall be conclusive and binding upon the parties. In resolving any disputed item, the Arbiter shall: (x) be bound by the principles set forth in this Section 2.4, (y) limit its review to matters specifically set forth in the Notice of Disagreement, and (z) not assign a value to any item greater than the greatest value for such item claimed by either party or less than the smallest value for such item claimed by either party. The fees, costs, and expenses of the Arbiter shall be borne: (i) by the Stockholders if less than 25% of the cumulative amount of disputed items so submitted are successfully disputed by the Stockholder Representative (as finally determined by the Arbiter); and (ii) by Buyer if 25% or more of the cumulative amount of disputed items so submitted are successfully disputed by the Stockholder Representative (as finally determined by the Arbiter). If the dispute is resolved by agreement among the parties or by the Arbiter, changes to the Closing Statement shall be made hereunder only for items as to which the Stockholder Representative has taken exception in the Notice of Disagreement. The fees and expenses of Buyer's independent accountants incurred in connection with the preparation of the Closing Statement and review of any Notice of Disagreement shall be borne by the Company or Buyer, and the fees and expenses of the Stockholder Representative's independent accountants incurred in connection with its review of the Closing Statement and preparation of any Notice of Disagreement shall be borne by the Stockholders in proportion to their respective Stockholder Percentages.

(c) Upon the determination of Final Debt and Unpaid Transaction Fees and Expenses, the Deferred Payment shall be further adjusted as follows:

- (i) in the event Estimated Debt exceeds Final Debt, the Deferred Payment shall be increased dollar for dollar by such excess amount; and
- (ii) in the event Final Debt exceeds Estimated Debt, the Deferred Payment shall be decreased dollar for dollar by such excess amount.

(d) The cumulative net adjustment to the Deferred Payment pursuant to (i) through (ii) of Section 2.4(c) hereof, whether positive or negative, is the “Final Adjustment Amount.” Within ten (10) business days after the Final Closing Statement becomes final and binding upon the parties: (i) if the net effect pursuant to this Section 2.4 is an increase in the Deferred Payment, the Company shall make a cash payment to the Stockholder Representative for distribution to the Stockholders, to an account or accounts designated in writing by the Stockholder Representative; and (ii) if the net effect pursuant to this Section 2.4 is a decrease in the Deferred Payment, the Stockholders shall make payment to the Company, to an account designated in writing by Buyer, in either case under clause (i) or (ii) of this Section 2.4(d), by wire transfer of immediately available funds of the amount of such Final Adjustment Amount.

## 2.5. Deferred Payment.

(a) Escrow of Stock Certificates Pending Payment of Deferred Payment. At the Closing, the Stockholders shall deliver the certificates representing the shares of Common Stock transferred by the Stockholders to Buyer together with appropriate undated stock powers duly executed in blank by Buyer free and clear of all Encumbrances (the “Stock Certificates”) to be held in escrow by Fox Rothschild LLP (the “Escrow Agent”). The Escrow Agent shall hold the Stock Certificates in safe keeping as agent on behalf of the parties, free from any lien or claim, and it shall deliver the Stock Certificates to the Buyer free of any Encumbrance, on the terms set forth in this Section 2.5. On December 31, 2014 (the “First Deferred Payment Date”), Buyer shall pay to each Stockholder the amount set forth on Schedule I, for distribution to such Stockholder, which amount shall total One Million Dollars (\$1,000,000) of the Deferred Payment by wire transfer of immediately available funds to the accounts that have been designated by the Stockholder Representative to Buyer at least three (3) calendar days prior to the First Deferred Payment Date. On March 31, 2015 (the “Second Deferred Payment Date”), Buyer shall pay to each Stockholder the amount set forth on Schedule I for distribution to such Stockholder, which amount shall total the remaining Two Million Dollars (\$2,000,000) of the Deferred Payment by wire transfer of immediately available funds to the accounts that have been designated by the Stockholder Representative to Buyer at least three (3) calendar days prior to the Second Deferred Payment Date. Following notice from Buyer that the full amount of the Deferred Payment has been remitted, the Escrow Agent shall deliver the Stock Certificates to Buyer within three (3) business days of the Second Deferred Payment Date. Notwithstanding the foregoing, in the event that Buyer fails to pay the full amount of the Deferred Payment on or before the Second Deferred Payment Date, the Common Stock shall be automatically transferred back to the Stockholders without the requirement of further notice, payment or demand. The right to the return of the Common Stock provided for in this Section 2.5 shall be the sole remedy of the Stockholders and their respective successors and assigns with respect of any claim related to a breach of Buyer’s obligations pursuant to this Agreement, except for any claims due to Buyer’s breach of Section 7.1. For clarity, as of the Closing Date, Buyer shall be entitled to all voting rights of the shares represented by the Stock Certificates. In addition, any improvements or developments to the Capsid Products or to the HBsAg Products made between the Closing Date and the Second Deferred Payment Date shall be deemed the property of the Company.

(b) Reliance by Escrow Agent; Non-Liability. Escrow Agent may and shall rely upon copies of signatures on any written document submitted to it under this Section 2.5 and shall act upon documents received by it by email or facsimile. Escrow Agent shall not be liable for any error of judgment or for any act done or omitted by it in good faith, or for anything it may in good faith do or refrain from doing in connection herewith; nor for any negligence other than its gross negligence; nor will any liability be incurred by Escrow Agent, if, in the event of any dispute or question as to its duties or obligations hereunder, it acts in accordance with advice of its legal counsel, including its own reasoned, written legal opinion relative to the matter.

(c) Acknowledgement and Waiver of Potential Conflicts. The Company is an existing client of Fox Rothschild and the interest of Fox Rothschild as Escrow Agent may vary and conflict with the interests of the Company, the Buyer and the Stockholders. As Escrow Agent, Fox Rothschild's duties are limited to those set forth in this Section 2.5 and it shall comply with the provisions of this Section 2.5 regardless of instructions from the Company to the contrary. The parties hereto waive any conflict of interest, lack of independence or appearance of impropriety with respect to Fox Rothschild's service as Escrow Agent hereunder.

2.6. Earn-Out. The Aggregate Purchase Price shall be increased by additional contingent cash consideration owed to the Stockholders, if any, as determined and paid in accordance with the terms and conditions set forth on Exhibit 2.6 attached hereto (the "Earn-Out").

2.7. Stockholder Representative.

(a) By the execution and delivery of this Agreement, each Stockholder shall be deemed to have appointed and authorized Pharmabridge, Inc. to act as such Stockholder's agent, representative, and attorney-in-fact hereunder (in such capacity (and not in his personal capacity), the "Stockholder Representative"). Each Stockholder shall be deemed to have authorized the Stockholder Representative to take such action on behalf of such Stockholder and to exercise all such powers as are expressly delegated to the Stockholder Representative hereunder, together with such other powers as are reasonably incidental thereto including the execution and delivery of certificates, statements, notices, approvals, extensions, waivers, undertakings, and amendments to this Agreement required or permitted to be made, given or determined hereunder or in connection with the transactions contemplated hereby, and including the right to: (i) receive notice from and give instructions to Buyer for payment of any Aggregate Purchase Price related to the Earn-Out on behalf of the Stockholders; (ii) negotiate the Closing Statement and any Earn-Out Statement and the settlement of any disputes relating to adjustments to the Aggregate Purchase Price pursuant to Section 2.4, 2.5 or 2.6 hereof; (iii) negotiate, compromise or settle any indemnification claims pursuant to Sections 9.2 and 10.3(a) of this Agreement; (iv) administer and cause the payment in full of the expenses incurred by the Stockholders and the Company incident to this Agreement and the transactions contemplated hereby out of the proceeds of the Closing Date Cash Purchase Price; and (v) prepare and timely file or cause to be prepared and timely filed Tax Returns.

(b) In connection with this Agreement and any instrument, agreement or document relating hereto or thereto, and in exercising or failing to exercise all or any of the powers conferred upon Stockholder Representative hereunder: (i) the Stockholder Representative shall incur no responsibility whatsoever to any Stockholder by reason of any error in judgment or other act or omission performed or omitted hereunder or in connection with any such other agreement, instrument or document, excepting only responsibility for any act or failure to act which represents bad faith or willful misconduct; and (ii) the Stockholder Representative shall be entitled to rely in good faith on the advice of counsel, public accountants or other experts experienced in the matter at issue, and any error in judgment or other act or omission of the Stockholder Representative pursuant to such advice shall in no event subject the Stockholder Representative to liability to any Stockholders. Each Stockholder shall indemnify the Stockholder Representative against all losses, damages, liabilities, claims, obligations, costs and expenses, including reasonable attorneys', accountants', and other experts' fees and the amount of any judgment against them, of any nature whatsoever (including any and all expense whatsoever reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened or any claims whatsoever), arising out of or in connection with any claim, investigation, challenge, action or proceeding, or in connection with any appeal thereof, relating to the acts or omissions of the Stockholder Representative hereunder or otherwise; provided, however, that the foregoing indemnification shall not apply in the event of any action or proceeding which finally adjudicates the liability of the Stockholder Representative hereunder for its bad faith or willful misconduct. In the event of any indemnification hereunder, upon written notice from the Stockholder Representative to the Stockholders as to the existence of a deficiency toward the payment of any such indemnification amount, each Stockholder shall promptly deliver to the Stockholder Representative full payment of his or her ratable share of the amount of such deficiency; provided, that no Stockholder shall be liable for that portion of any claim of indemnification, individually or in the aggregate, that is in excess of the portion of the Aggregate Purchase Price actually received by such Stockholder.

(c) All of the indemnities, immunities, and powers granted to the Stockholder Representative under this Agreement shall survive any termination of this Agreement.

(d) The grant of authority provided for herein is coupled with an interest and shall survive the death, incompetency, bankruptcy or liquidation of any Stockholder. If the Stockholder Representative is unable to serve in such capacity or if the Stockholders desire to designate a new Stockholder Representative, his successor shall be designated by the Stockholders in writing delivered to Buyer.

(e) Buyer shall be entitled to rely on any decision, action, consent or instruction of the Stockholder Representative as being the decision, action, consent or instruction of the Stockholders, and Buyer is hereby relieved from any liability to any Person for acts done by it or omissions made by it in accordance with such decision, act, consent or instruction. The Stockholders shall jointly and severally release, indemnify, and hold harmless Buyer and the Company from and against all Losses, including reasonable attorneys' fees and disbursements, arising out of or in connection with the Stockholder Representative's exercise of authority pursuant to this Section 2.7.

### ARTICLE III CLOSING

3.1. Closing Date. The closing of the transactions contemplated hereby (the "Closing") shall take place at the offices of Fox Rothschild LLP, 2700 Kelly Road, Suite 300, Warrington, PA at 9:00 A.M. ET on the date hereof, or at such other place, time or date as Buyer and the Stockholder Representative may agree in writing (such time and date being referred to herein as the "Closing Date"). For financial accounting and tax purposes, to the extent permitted by law, the Closing shall be deemed to have become effective as of the opening of business on the Closing Date.

3.2. Closing Deliveries.

- Stockholders:
- (a) Deliveries by Buyer to the Stockholders. At the Closing, Buyer shall deliver or cause to be delivered the following to the Stockholders:
- and
- (i) the Closing Date Cash Purchase Price in accordance with Section 2.2(a), subject to the terms and conditions hereof;
- (ii) the [\*\*\*]; and
- (iii) the other Ancillary Agreements to which Buyer is a party, duly executed by Buyer.
- (b) Deliveries by the Stockholders to Buyer. At the Closing, the Stockholders shall deliver or cause to be delivered the following to Buyer:
- (i) the Ancillary Agreements to which the Company or any Stockholder is a party, duly executed by the Company or such Stockholder, as the case may be;
- (ii) all consents, approvals, authorizations, exemptions, and waivers from governmental agencies or third parties, if any, that shall be required in order to consummate the transactions contemplated hereby;
- (iii) "FIRPTA" certificates prepared in accordance with Treasury Regulation Section 1.1445-2 and dated as of the Closing Date certifying that the Stockholders are not foreign persons;
- (iv) a legal opinion of the Stockholders' respective counsel addressed to Buyer and reasonably acceptable to Buyer and Stockholders;
- (v) an Officer's Certificate of the Company executed by the Company's Chief Executive Officer certifying: (A) true, complete, and correct copies of each of the Company's certificate of incorporation and bylaws; (B) true and correct copies of each resolution of its board of directors approving any Ancillary Agreements to which it is a party and the consummation of the transactions contemplated thereby; and (C) certificates of good standing from the State of Delaware and the Commonwealth of Pennsylvania with respect to the Company;
- (vi) written resignations of any director or officer of the Company as to which such resignation has been requested by Buyer, effective as of the Closing Date;
- (vii) evidence of termination, and any consents or releases required to terminate, as of Closing, the agreements listed on Schedule 3.2(b)(vii) of the Disclosure Schedules without any liability to Buyer or the Company from and after the Closing;

- (viii) The Stock Certificates, which shall be held in escrow by the Escrow Agent pursuant to Section 2.5; and
- (ix) such other agreements, certificates, and documents as may be reasonably requested by Buyer.

ARTICLE IV  
REPRESENTATIONS AND WARRANTIES OF THE STOCKHOLDERS

Each Stockholder severally and not jointly represents and warrants to Buyer as follows:

4.1. **Authority.** The execution, delivery, and performance by such Stockholder of this Agreement and the Ancillary Agreements to which such Stockholder is a party and the consummation by such Stockholder of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of such Stockholder, and such Stockholder has the legal capacity to execute, deliver and perform this Agreement and the Ancillary Agreements to which such Stockholder is a party. This Agreement has been, and each Ancillary Agreement to which such Stockholder is a party will be, duly and validly executed and delivered by such Stockholder, and constitutes, and will constitute, the valid and binding obligation of such Stockholder, enforceable against such Stockholder in accordance with its respective terms.

4.2. **No Conflict.** The execution, delivery and performance by such Stockholder of this Agreement and the Ancillary Agreements to which such Stockholder is a party, and the consummation by such Stockholder of the transactions contemplated hereby and thereby do not and will not, with or without the giving of notice or the lapse of time, or both, (w) violate any provision of law, rule or regulation to which such Stockholder is subject, (x) violate any order, judgment or decree applicable to such Stockholder or (y) violate or result in a breach of or constitute a default (or an event which might, with the passage of time or the giving of notice, or both, constitute a default) under, or require the consent of any third party under, or result in or permit the cancellation, termination or amendment of any provision of, or result in or permit the acceleration of the maturity or cancellation of performance of any obligation under, or result in the creation or imposition of any Encumbrance of any nature whatsoever upon any assets or property, whether tangible or intangible, or give to others any interests or rights therein under, any indenture, deed of trust, mortgage, loan or credit agreement, license, permit, contract, lease, or other agreement, instrument or commitment to which such Stockholder is a party or by which such Stockholder may be bound or affected, except for any such violations, breaches, defaults, required consents, terminations, accelerations, Encumbrances or rights that in the aggregate would not materially hinder or impair the ability of such Stockholder to perform its obligations hereunder or to consummate the transactions contemplated hereby.

4.3. **Ownership.** Such Stockholder is the beneficial and record owner of the shares of Common Stock set forth opposite such Stockholder's name on Exhibit 2.1 attached hereto, free and clear of all liens, security interests, security agreements, conditional sale or other title retention agreements, leases, pledges, equities, proxies, charges, adverse claims, mortgages, rights of first refusal, preemptive rights, restrictions, encumbrances, easements, covenants, assessments, attachments, licenses, options or title defects of any kind whatsoever, or any agreement to give any of the foregoing (the "Encumbrances"). Such Stockholder has all requisite legal right, power and authority to transfer such shares of Common Stock. Upon consummation of the transactions contemplated hereby, Buyer will acquire from such Stockholder good and marketable title to such shares of Common Stock, free and clear of any Encumbrances.

ARTICLE V  
REPRESENTATIONS AND WARRANTIES OF  
THE STOCKHOLDERS REGARDING THE COMPANY

The Stockholders jointly and severally represent and warrant to Buyer as follows:

5.1. Organization. The Company is a corporation duly organized, validly existing, and in good standing under the laws of the State of Delaware. The Company has all requisite corporate power and authority to carry on its business as it now is being conducted and to execute, deliver, and perform the Ancillary Agreements to which it is a party and to consummate the transactions contemplated thereby. The Company is duly qualified to do business and is in good standing as a foreign corporation in all jurisdictions listed on Schedule 5.1 of the disclosure schedules delivered by the Stockholders and the Company to Buyer in connection herewith (the "Disclosure Schedules"), which are the only jurisdictions where the nature of the property owned or leased by it or the nature of the business conducted by it makes such qualification necessary, except where the failure to be so qualified or in good standing would not have a Material Adverse Effect. True and complete copies of the certificate of incorporation, bylaws, and other governance documents of the Company, all as amended to date (if applicable), have been previously delivered to Buyer.

5.2. Authority. The execution, delivery, and performance by the Company of the Ancillary Agreements to which the Company is a party and the consummation by the Company of the transactions contemplated thereby have been duly authorized by all necessary action on the part of each Stockholder and the Company. Each Ancillary Agreement to which the Company is a party has been, and will be, duly and validly executed and delivered by the Company, to the extent a party thereto, and constitutes, and will constitute, the valid and binding obligation of the Company, enforceable against the Company in accordance with its respective terms.

5.3. No Conflict. The execution, delivery, and performance of this Agreement and the Ancillary Agreements to which the Company or any of the Stockholders is a party, and the consummation by the Stockholders and the Company of the transactions contemplated hereby and thereby do not and will not, with or without the giving of notice or the lapse of time, or both, (w) violate any provision of law, rule or regulation to which the Company is subject, (x) violate any order, judgment, or decree applicable to the Company, (y) violate any provision of the certificate of incorporation, bylaws or other governance documents of the Company or (z) except as disclosed on Schedule 5.3 of the Disclosure Schedules, violate or result in a breach of or constitute a default (or an event which might, with the passage of time or the giving of notice, or both, constitute a default) under, or require the consent of any third party under, or result in or permit the cancellation, termination or amendment of any provision of, or result in or permit the acceleration of the maturity or cancellation of performance of any obligation under, or result in the creation or imposition of any Encumbrance of any nature whatsoever upon any assets or property, whether tangible or intangible, or give to others any interests or rights therein under, any governmental or other permits, registrations, certificates, certifications, exemptions, licenses, approvals or authorizations or any indenture, deed of trust, mortgage, loan or credit agreement, contract, lease, or other agreement, instrument or commitment to which the Company is a party or by which the Company may be bound or affected, except for any such violations, breaches, defaults, required consents, terminations, accelerations, Encumbrances or rights that in the aggregate would not (i) materially hinder or impair the ability of the Company or the Stockholders to perform their obligations under this Agreement or the Ancillary Agreements or to consummate the transactions contemplated hereby or thereby or (ii) be material to the business of the Company.

5.4. Capitalization; Ownership. The authorized and outstanding equity securities of the Company are set forth on Schedule 5.4 of the Disclosure Schedules. The shares of Common Stock owned by the Stockholders represent all of the issued and outstanding equity securities of the Company, and all of the outstanding shares of Common Stock are duly authorized, validly issued, fully paid, and non-assessable, were not issued in violation of the terms of any agreement or other understanding binding upon any Stockholder or the Company, and were issued in compliance with all applicable federal and state securities or “blue-sky” laws and regulations. There are no outstanding securities convertible into, exchangeable for or carrying the right to acquire equity securities of the Company, or subscriptions, warrants, options, phantom equity interests, rights (including preemptive rights or equity appreciation rights), or other arrangements or commitments obligating the Company to issue or dispose of any of its equity securities or any ownership interest therein. The consummation of the transactions contemplated hereby will not cause any Encumbrances to be created or suffered on any shares of Common Stock, other than Encumbrances created by Buyer.

5.5. Subsidiaries. The Company does not: (i) directly or indirectly own any stock of, equity interest in, or other investment in any other corporation, joint venture, partnership, trust or other Person; or (ii) have any subsidiaries or any predecessors in interest by merger, liquidation, reorganization, acquisition or similar transaction.

5.6. Financial Statements; Undisclosed Liabilities.

(a) The books of account and related records of the Company fairly reflect in all material respects the Company’s assets, liabilities and transactions in accordance with GAAP. The (x) unaudited consolidated balance sheet of the Company for the years ended December 31, 2013, 2012 and 2011 and the related unaudited consolidated statements of income, changes in stockholders’ equity, and cash flows for the years then ended, and (y) the unaudited balance sheet of the Company as of August 31, 2014 (the “Recent Balance Sheet”), and the related unaudited statements of income operations, stockholders’ equity and retained earnings and cash flows for the eight (8) month period ended August 31, 2014 (the “Recent Financial Statements”), have been previously delivered to Buyer and: (i) are true and correct in all material respects; (ii) were prepared in accordance with GAAP (except as specifically otherwise noted therein or, in the case of the Recent Financial Statements, except for the absence of footnotes); and (iii) present fairly the financial position, results of operations and cash flows of the Company on a consolidated basis as of such dates and for the periods then ended in accordance with GAAP. The unaudited balance sheet of the Company on a consolidated basis as at December 31, 2013 is attached as Schedule 5.6.1 of the Disclosure Schedules (the “Balance Sheet”). The Recent Financial Statements are attached as Schedule 5.6.2 of the Disclosure Schedules.

(b) The Company has no material liability or obligation of any nature required to be reflected on a balance sheet prepared in accordance with GAAP, whether due or to become due, absolute, contingent or otherwise, except: (i) to the extent reflected as a liability on the Balance Sheet; (ii) current liabilities incurred in the ordinary course of business after December 31, 2013 consistent with past practice; and (iii) liabilities disclosed on Schedule 5.6.3 of the Disclosure Schedules.

5.7. Absence of Certain Changes or Events. Except as set forth on Schedule 5.7 of the Disclosure Schedules, since August 31, 2014, the Company has conducted its business only in the ordinary course consistent with past practice and there has been no Material Adverse Effect. Without limiting the foregoing, except as set forth on Schedule 5.7 of the Disclosure Schedules, since August 31, 2014, the Company has not: (a) purchased or redeemed any of its securities (including shares of Common Stock), or granted or issued any option, warrant or other right to purchase or acquire any such securities; (b) paid, cancelled, incurred, waived, settled, discharged or satisfied any Debt, claim, action, liability or other obligation (whether absolute, accrued, contingent or otherwise), except in the ordinary course of business consistent with past practice; (c) encumbered any of its properties or assets, tangible or intangible, except for Encumbrances incurred in the ordinary course of business consistent with past practice; (d) granted any increase in the salaries or other compensation payable or to become payable to, or any advance or loan to, the Stockholders or any officer, director or employee of the Company (other than normal increases for employees other than officers not in excess of five percent (5%) made in the ordinary course of business and consistent with past practice); (e) entered into (or amended) any employment, severance or similar agreement with any Stockholder, director, officer or employee or hired any new employee (other than to replace a terminated employee); (f) adopted or amended any Benefit Plan or any employment policy relating to vacation pay, sick pay, disability coverage, severance pay or otherwise relating to any employee of the Company or failed to make contributions to any Benefit Plan in accordance with past practice; (g) suffered any change or, to the knowledge of the Stockholders or the Company, received any threat of any change in any of its relations with, or any loss or, to the knowledge of the Stockholders or the Company, threat of loss of, any of the suppliers, clients, distributors, customers or employees that are material to the business of the Company, including any threat made on or prior to the Closing Date of any loss or change which may result from the transactions contemplated by this Agreement; (h) disposed of or failed to keep in effect any rights in, to or for the use of any franchise, license, permit or certificate material to the business of the Company; (i) changed any method of keeping of their respective books of account or accounting practices; (j) disposed of or failed to keep in effect any rights in, to or for the use of any of the Intellectual Property Rights material to the business of the Company; (k) sold, transferred or otherwise disposed of any assets, properties or rights of any of the business of the Company, except inventory sold in the ordinary course of business consistent with past practice; (l) entered into any transaction, agreement or arrangement with any Stockholder, director, officer, employee or other Affiliate of the Company or any “associates” (as defined in the rules and regulations of the Securities and Exchange Commission) of the Company other than the payment of salaries to employees in the ordinary course of business; (m)

changed or modified in any manner its existing capital expenditure policies, procedures and practices, including the deferral of any capital expenditures contemplated by the Company's 2014 budget or operating plans; (n) changed or modified in any manner its existing credit, collection, and payment policies, procedures, and practices with respect to accounts receivable and accounts payable, respectively, including acceleration of collections of receivables, failure to make or delay in making collections of receivables (whether or not past due), acceleration of payment of payables or failure to pay or delay in payment of payables; (o) incurred any material damage, destruction, theft, loss or business interruption; (p) made any declaration, payment or setting aside for payment of any dividend or other distribution (whether in cash, equity or property) with respect to any securities of the Company; (q) made any change in its Tax elections or accounting methods, received a ruling, entered into any closing agreement, settlement or compromise of any claim or assessment, in each case, in respect of Taxes; (r) waived or released any material right or claim of the Company or incurred any modifications, amendments or terminations of any Contracts which are in the aggregate materially adverse to the Company; or (s) agreed to do any of (a) through (r) above.

5.8. Condition of Assets.

(a) The Company has good and marketable title to all of the assets and properties which the Company purports to own (including those reflected on the Balance Sheet, but excluding any such assets and properties sold, consumed, or otherwise disposed of in the ordinary course of business since December 31, 2013) free and clear of all Encumbrances, except for: (i) as set forth on Schedule 5.8.1 of the Disclosure Schedules; (ii) liens for Taxes not yet due and payable or for Taxes being contested in good faith and for which there are adequate accruals or reserves on the Balance Sheet; and (iii) minor imperfections of title, none of which, individually or in the aggregate, materially detracts from the value of the affected properties, materially impairs the use of the affected properties in the manner such properties currently are being used or materially impairs the operations of the Company (Encumbrances described in subclauses (ii) and (iii) of this Section 5.8(a) and Encumbrances marked with an asterisk (\*) on Schedule 5.8.1 of the Disclosure Schedules being the "Permitted Encumbrances").

(b) Schedule 5.8.2 of the Disclosure Schedules lists all material properties and assets owned by the Company that are used in the operation of the business of the Company (the "Company-Owned Equipment"). The Company-Owned Equipment is, to the knowledge of the Stockholders, in good operating condition and repair (except for ordinary wear and tear and routine maintenance in the ordinary course of business), is adequate for the purposes for which it is presently used in the conduct of the Company's business, is useable in a manner consistent with its current use and, to the knowledge of the Stockholders, complies with applicable Laws. Except as set forth on Schedule 5.8.2 of the Disclosure Schedules, the properties, assets, and rights owned or leased by the Company, constitute all of the assets, properties and rights necessary for the operation of the Company's business as currently conducted in a manner consistent with their respective current use and, if owned or leased by the Company, will continue to be validly owned or leased by the Company following the consummation of the transaction contemplated by this Agreement.

5.9. Real Property. The Company owns no real property.

5.10. Leases; Leased Real Property.

(a) Schedule 5.10 of the Disclosure Schedules sets forth a true, correct, and complete list of all leases and subleases (the “Leases”) of real property to which the Company is a party (collectively, the “Leased Real Property”). The Company does not operate and has not operated its business at any location other than those listed as Leased Real Properties on Schedule 5.10 of the Disclosure Schedules. True, correct, and complete copies of all Leases and all amendments, modifications, and supplemental agreements thereto have previously been delivered by the Stockholders or the Company to Buyer. The Leases are in full force and effect and are binding and enforceable against the Company and each of the other parties thereto, in accordance with their respective terms and have not been modified or amended since the date of delivery to Buyer. No party to any Lease has notified the other in writing claiming that such party is in default thereunder and that such default remains uncured. There has not occurred any event by the Company which would constitute a breach of or default in the performance of any covenant, agreement or condition contained in any Lease, nor has there occurred any event which with the passage of time or the giving of notice or both would constitute such a breach or default, except for breaches or defaults that are not material. To the knowledge of the Stockholders, there is no current or pending event or circumstance that would permit the termination of any of the Leases or the increase of any obligations, liabilities or restrictions of the Company under the Leases. The Company is not obligated to pay any leasing or brokerage commission relating to any Lease that has not already been paid and has no obligation to pay any leasing or brokerage commission upon the renewal of any Lease. No construction, alteration or other leasehold improvement work with respect to any of the Leases remains to be paid for or to be performed by the Company. Except for the security deposit required by the terms of the Leases, the Company has no obligations to provide deposits, letters of credit or other credit enhancements to retain its rights under the Leases or otherwise operate its business at the Leased Real Properties.

(b) The Company presently enjoys peaceful and undisturbed possession of its Leased Real Property sufficient for current use and operations. Neither the Company nor the Stockholders nor, to the knowledge of the Stockholders or the Company, any landlord of Leased Real Property has received written notice of any material eminent domain, condemnation or other similar proceedings pending or threatened against the Company or with respect to, or otherwise affecting any portion of, the Leased Real Property. The current use of the Leased Real Property by the Company does not violate any Lease in any material respect. Except as set forth on Schedule 5.10 of the Disclosure Schedules, to the knowledge of the Stockholders, the Company is not in violation of any covenant, condition, restriction, easement or order of any Governmental Authority having jurisdiction over the Leased Real Property or the use or occupancy thereof, except for such violations as would not materially interfere with the continued use and operations of the property to which they relate or materially adversely affect the value thereof for its current use. Except as set forth on Schedule 5.10 of the Disclosure Schedules, to the knowledge of the Stockholders, the Leased Real Property is in compliance in all material respects with all applicable building, zoning, subdivision, health and safety, and other land use and similar applicable laws, rules, and regulations, permits, licenses, and certificates of occupancy affecting the Leased Real Property, and neither the Company nor the Stockholders nor, to the knowledge of the Stockholders or the Company, any landlord of Leased Real Property has received any written notice of any violation or claimed violation by any of them of any such laws, rules and regulations with respect to the Leased Real Property which have not been resolved or for which any obligation of the Company remains to be fulfilled, including payments of monetary damages, fines or penalties, or completion of any remedial or corrective measures. Except as set forth on Schedule 5.10 of the Disclosure Schedules, to the knowledge of the Stockholders, the Leased Real Property is adequately served by proper utilities, sufficient parking and other building services necessary for its current use and for compliance with all applicable laws, rules, regulations, permits, licenses, and certificates of occupancy.

5.11. Receivables. Other than existing governmental grants, the Company does not have any accounts or notes receivable as of the date hereof.

5.12. Intellectual Property.

(a) Schedule 5.12.1 of the Disclosure Schedules sets forth a complete and correct list of all: (i) Patents; (ii) Trademarks; (iii) registered Copyrights; (iv) domain names; and (v) material Software owned or co-owned by Company; specifying as to each such item, as applicable, the owner or record (and co-owner, where applicable), jurisdiction of application or registration, the application or registration number, the date of application or registration, and the status of application or registration, including any deadlines for renewals, maintenance fees or other required filings.

(b) Except as set forth on Schedule 5.12.2 of the Disclosure Schedules:

(i) The Company Intellectual Property Rights, together with the Intellectual Property Rights licensed to Company under the licenses listed under (m) of Schedule 5.13.1 of the Disclosure Schedules, constitute all of the material Intellectual Property Rights necessary to conduct and operate the business of the Company as currently conducted.

(ii) The Company is the owner of the Company Intellectual Property Rights, free and clear of all liens, adverse claims or other restrictions, or any requirement of any past, present or future royalty payments.

(iii) None of the Company Intellectual Property Rights are or have been involved in any opposition, cancellation, interference, reissue or reexamination proceeding; no Software owned or co-owned by the Company, or any other Company Intellectual Property Right, has been placed in escrow; and no Company Intellectual Property Right is the subject of any judicial, administrative or arbitral order, award, decree, injunction, or stipulation (excluding rejections, Orders or rulings issues in the context of the application for registration of Company Intellectual Property Rights) or any lawsuit, or other judicial, administrative or arbitral proceeding ("Proceeding"). Except for the license agreements listed under (m) of Schedule 5.13.1 of the Disclosure Schedules, the Company has not granted any options with respect to, or has otherwise encumbered or placed limitations on any Company Intellectual Property Right or the Company's use thereof.

(iv) The Company has not received in the past six (6) years any written notice alleging that any Company Intellectual Property Right is invalid or unenforceable, or challenging any the Company's ownership of or right to use any such rights and the Company is not aware of the any basis for any such claim. Each of the registrations and recordations of Company Intellectual Property Rights identified on Schedule 5.12.1 of the Disclosure Schedule is held or recorded in the name of Company, is in full force, enforceable, has been duly applied for and registered in accordance with applicable law, and all past or outstanding maintenance obligations have been satisfied.

(v) Except as set forth on Schedule 5.12.2(b) of the Disclosure Schedule, the Company has not received any written notice in the past six (6) years alleging that the Company is infringing, misappropriating or violating the Intellectual Property Rights of any third party and, to the knowledge of the Stockholders, the products and services and the business of Company as currently conducted do not infringe, misappropriate or violate, the Intellectual Property Rights of any third party. Company has not received any written notice in the past six (6) years alleging that the Company is infringing, misappropriating or violating the Intellectual Property Rights of any third party and Company is not subject to any Order barring or limiting the Company's use of any Intellectual Property Rights.

(vi) The Company has taken all commercially reasonable and appropriate steps to protect and maintain all Company Intellectual Property Rights, including to preserve the confidentiality of any Trade Secrets. All disclosures by the Company of Trade Secrets to any third party has been pursuant to the terms of a written agreement with such Person or is otherwise lawful. The Company's practices with regard to the collection, dissemination, and use of data are and have been in accordance in all material respects with applicable laws relating to data protection, contractual commitments of the Company, and any published privacy policies, and Company has a written agreement with each third party service providers having access to such data requiring compliance with such applicable laws and contractual commitments.

(vii) All rights of inventors, authors and other persons who participated in the development of the Company Intellectual Property Rights have been duly assigned to Company pursuant to a written agreement, and have been duly recorded in accordance with applicable law. The Company has a policy to secure and has secured from all employees, consultants, and contractors who contribute or have contributed to the creation or development of any of the Company Intellectual Property Rights, a written agreement assigning to the Company all rights to such contributions, which agreement includes a present tense assignment of future inventions, and Company has provided true and complete copies of such assignments to Buyer.

(viii) To the knowledge of the Stockholders, no third party has or is infringing on, misappropriating or otherwise violating any Company Intellectual Property Right. In the last six (6) years, Company has not sent any written notice to or asserted or threatened any action or claim against any Person involving or relating to any Company Intellectual Property Right.

(ix) No Company Intellectual Property Rights were developed, in whole or in part: (A) pursuant to or in connection with the development of any professional, technical or industry standard; (B) under contract with any Governmental Authority; or (C) using any software, software development toolkits, databases, libraries, scripts, or other, similar modules of software that are subject to "open source" or similar license terms.

(x) The material information technology system owned, licensed, leased, and operated on behalf of, or otherwise held for use in the business of the Company, including all material computer hardware, software, firmware, and telecommunications systems used in the business of the Company, has performed adequately in the past six (6) years (subject to temporary problems arising in the ordinary course of business that did not materially disrupt the operations of Company). The Company has taken commercially reasonable steps to provide for the archival, back-up, recovery and restoration of the critical business data of the Company.

5.13. Material Contracts. Schedule 5.13.1 of the Disclosure Schedules contains a complete and accurate list of all outstanding Contracts (classified (a) through (u), as applicable, based on the definition of Contracts set forth in Section 1.11 hereof). Each such Contract is valid, binding, and enforceable against the Company and, to the knowledge of the Stockholders, the other parties thereto in accordance with its terms and is in full force and effect. Except as set forth on Schedule 5.13.2 of the Disclosure Schedules, the Company has performed in all material respects all obligations required to be performed by it under, and is not in material default under, any of such Contracts and no event has occurred which, with notice or lapse of time, or both, would constitute such a default.

5.14. Litigation. Except as set forth on Schedule 5.14.1 of the Disclosure Schedules, there is no action, claim, suit, review, proceeding or, to the knowledge of the Stockholders, investigation in any court or before any governmental agency or authority or arbitrator ("Litigation") pending or brought by the Company or, to the knowledge of the Stockholders or the Company, threatened against the Company, any of its properties, assets or (to the extent the Company may have an obligation to provide indemnification or may otherwise become liable) any of its officers, directors or employees or any Stockholder. Except as set forth on Schedule 5.14.2 of the Disclosure Schedules, the Company is not party to or bound by any outstanding orders, rulings, judgments, settlements, arbitration awards or decrees (or agreement entered into or any administrative, judicial or arbitration award with any Governmental Authority) ("Orders") with respect to or affecting the properties, assets, personnel or business of the Company, the enforcement of which or compliance with which: (a) would have a Material Adverse Effect; or (b) could reasonably be expected to affect the (i) validity of this Agreement or its enforceability against any Stockholder or the Company, (ii) consummation by any Stockholder or the Company of the transactions contemplated by this Agreement or (iii) compliance by any Stockholder or the Company with the terms of this Agreement. Schedule 5.14.3 of the Disclosure Schedules contains a complete and accurate list setting forth a general description of settlements, judgments and other dispositions occurring since January 1, 2011 regarding actual or threatened lawsuits (excluding worker's compensation claims) involving the Company.

5.15. Compliance; Permits.

(a) Except as set forth on Schedule 5.15.1 of the Disclosure Schedules, the Company is, and has been, in material compliance with all Laws and orders of a Governmental Authority applicable to its assets, properties or business. Except as set forth on Schedule 5.15.2 of the Disclosure Schedules, the Company has not: (i) received any written notice or other communication from any Governmental Authority or any other Person with jurisdiction over the Company providing notice of an assertion, investigation or Action arising out of any actual or possible violation of, or failure to comply with any provision of, any Law; or (ii) filed or otherwise provided any written notice or other communication to any Governmental Authority or other Person regarding any actual or possible violation of, or failure to comply with any provision of, Law.

(b) Except as disclosed on Schedule 5.15.3 of the Disclosure Schedules, to the knowledge of the Stockholders, the Company is in possession of all Permits necessary for it to own, lease, and operate its properties or to carry on its business in all material respects as is now being conducted as of the Closing. All such Permits are listed on Schedule 5.15.4 of the Disclosure Schedules, are valid and in full force and effect, and accurate and complete copies of such Permits have been delivered to Buyer. The Company has, if required by applicable Laws, paid any fees or other payments due to any Governmental Authority, filed all renewals, and made all reports to the applicable Governmental Authorities to maintain such Permits or to carry on their business. To the knowledge of the Stockholders, no Permit has expired before the date of this Agreement or will expire on or before the Closing. To the knowledge of the Stockholders, the Company has not been in default or in material conflict, breach or violation of any Permit of the Company or by which any property or asset of the Company is bound. To the knowledge of the Stockholders, no suspension or cancellation of any Permit of the Company is pending or threatened. The Company has not received any written notice or other communication from any Governmental Authority, and to the knowledge of the Stockholders or the Company, no event has occurred, regarding: (i) a violation of or failure to comply with any term or requirement of any Permit; or (ii) a Governmental Authority's revocation, withdrawal, suspension, cancellation, termination or modification of any Permit. To the knowledge of the Stockholders, no Governmental Authority has taken any action to challenge or revoke the right of the Company to design, research, develop, pre-clinically or clinically test, manufacture, license, offer, market, promote or sell any Company Product.

(c) Except as set forth on Schedule 5.15.5 of the Disclosure Schedules: (i) with respect to each Company Product, the Company has obtained, unless otherwise exempt, all necessary and applicable Permits to permit the research, development, pre-clinical testing, and manufacturing of Company Products as conducted to-date; (ii) the Company has not engaged in any manufacturing of commercial supplies or commercial distribution, marketing, advertising, promotion or sales operations; and (iii) all pre-clinical studies conducted with any Company Product, performed or sponsored by the Company, have been and are being conducted in material compliance with the requirements of all applicable Laws, including where applicable, those relating to cGLPs, animal care and welfare, reporting, recordkeeping, and filing of reports.

(d) All preclinical studies performed, or which are being performed, by or on behalf of the Company with respect to the Company Products as the basis for any submission to the FDA or other comparable Government Authority have, as required by applicable Laws, been conducted in accordance, in all material respects, with all applicable Laws, including applicable cGLP requirements, including those contained in 21 C.F.R. Part 58, and animal care and welfare requirements. The Company has not received any written notice from a Governmental Authority requiring the termination or suspension or material modification of any preclinical study with respect to any Company Product. To the knowledge of the Stockholders, all material preclinical tests and other studies (collectively, "Studies") conducted by or on behalf of the Company of the Company Products were and, if still pending, are being conducted in all material respects in accordance with the protocols, procedures, and controls designed and approved for such Studies and with standard scientific research procedures. The Company has provided Buyer with the Study reports for all completed Studies, and the Study protocols and statistical analysis plans for all Studies, and such documents are accurate and complete in all material respects, and the Stockholders and the Company have no knowledge of any other studies conducted by or on behalf of the Company the results of which are inconsistent with, or otherwise call into question, the results of the Studies as described in writing to Buyer.

(e) To the knowledge of the Stockholders or the Company, the Company and its activities, including all Company Product manufacture, and all preclinical and other research, is in material compliance with all Laws of the FDA and the United States Department of Agriculture (“USDA”), all Laws administered by counterpart agencies outside the United States, and all other corresponding state and local Laws of any Governmental Authority, in each case, applicable to the Company Products (including the research, development, preclinical testing, and manufacture of the Company Products) or the maintenance, compilation and filing of reports, with regard to the Company Products including all requirements of the Federal Food, Drug and Cosmetic Act of 1938, as amended (including the rules and regulations promulgated thereunder, the “FDCA”), and the Animal Welfare Act, as amended (including the rules and regulations promulgated thereunder).

(f) Neither the Company nor, to the knowledge of the Stockholders or the Company, any laboratory or other third party providing research services for the Company, or third party manufacturer of the Company Products is in receipt of written notice or other written communication from the FDA, USDA, or other Governmental Authority of, deficiency, finding of non-compliance, compelled or voluntary recall, investigation, penalty for corrective or remedial action or other FDA, USDA, or other Governmental Authority compliance or enforcement action, including Warning Letters, Untitled Letters, FDA Form 483, USDA 7060, complaints, decisions, orders, or other FDA or USDA notices, Actions, or communications in each case, relating to the Company’s products, activities, or to the facilities in which such products are researched, developed, pre-clinically tested, or manufactured. There are no pending or, to the knowledge of the Stockholders or the Company, threatened actions, proceedings or complaints or, to the knowledge of the Stockholders or the Company, investigations by the FDA, USDA or any other Governmental Authority alleging any violation of any Laws by the Company.

(g) The Company is not party to any corporate integrity agreements, monitoring agreements, consent decrees, settlement orders or similar agreements with or imposed by any Governmental Authority. The Company has not been placed under or otherwise made subject to the FDA’s Application Integrity Policy pursuant to FDA’s Compliance Policy Guide (CPG) 7150.09, 56 FR 46191 (September 10, 1991).

(h) Neither the Company nor, to the knowledge of the Stockholders, any of its Affiliates, officers, directors, employees or agents, has ever been or are currently the subjects of proceedings to render them, as applicable, a Debarred Entity or Debarred Individual, an Excluded Entity or Excluded Individual, a Convicted Entity or Convicted Individual, or a Disqualified Individual. For purposes of this provision, the following definitions shall apply: (i) a “Debarred Individual” is an individual and a “Debarred Entity” is a corporation, partnership or association that has been debarred by the FDA pursuant to 21 U.S.C. § 335a or otherwise barred from providing services related to FDA regulated products; (ii) an “Excluded Individual” or “Excluded Entity” is (A) a Person who has been excluded, debarred, suspended or is otherwise ineligible to participate in federal health care programs such as Medicare or Medicaid by the Office of the Inspector General (OIG/HHS) of the U.S. Department of Health and Human Services, or (B) is a Person who has been excluded, debarred, suspended or is otherwise ineligible to participate in federal procurement and non-procurement programs, including those produced by the U.S. General Services Administration (GSA); (iii) a “Convicted Individual” or “Convicted Entity” is a Person who has been charged or convicted of a criminal offense or otherwise named in an Action that falls within the ambit of 21 U.S.C. § 331, 21 U.S.C. § 335a, 21 U.S.C. §335b, 42 U.S.C. § 1320a - 7, 31 U.S.C. §§ 3729 – 3733, 42 U.S.C. § 1320a-7a, or any other statute pertaining to the development, testing, manufacturing, distribution, marketing, promotion, or advertising of drugs, biologics, devices, or health related products but has not yet been excluded, debarred, suspended, convicted, or otherwise declared ineligible, and in each case any foreign equivalents thereof, as applicable; and (iv) a “Disqualified Individual” is an individual disqualified or deemed ineligible by FDA pursuant to 21 C.F.R. Parts 312, 511, or 812.

(i) Neither the Company nor any of its Stockholders nor any officer, director, employee or, to the knowledge of the Stockholders or the Company, any agent or any affiliate thereof, has made an untrue statement of a material fact or fraudulent statement to the FDA or any other Governmental Authority including statements concerning the safety, efficacy, reliability, manufacture, investigation, sale or marketing of pharmaceuticals or medical products, including the FDA and EMA, failed to disclose a material fact required to be disclosed to the FDA or any other such Governmental Authority, or otherwise committed any act, made any statement, or failed to make any statement, that would reasonably be expected to provide a basis for the FDA to invoke its policy respecting “Fraud, Untrue Statements of Material Fact, Bribery, and Illegal Gratuities”, set forth in 56 Fed. Reg. 46191 (September 10, 1991).

(j) No claims have been asserted or, to the knowledge of the Stockholders or the Company, have been threatened in writing against the Company or any of its Affiliates by any Person, regulator, law enforcement agency or entity alleging a violation of any privacy, personal or confidentiality rights under any applicable Laws. With respect to all personal or user information collected by the Company or its Affiliates in connection with the Company Products or the Company’s operations, the Company has taken commercially reasonable steps necessary (including implementing and monitoring compliance with reasonable measures with respect to administrative safeguards and technical and physical security) to: (i) protect such information against loss and against unauthorized access, use, modification, disclosure or other misuse; and (ii) comply with applicable Laws in its collection, processing, storage, use, disclosure, and transfer of such information. To the knowledge of the Stockholders, there has been no unauthorized access to, theft, breach or disclosure of or other misuse of that information. There has been no unlawful disclosure of electronic communications, patient data, clinical data or protected health information to any third party, including any Governmental Authority.

(k) Except as disclosed on Schedule 5.15.6 of the Disclosure Schedules, the Company has not violated the Arms Export Control Act (22 U.S.C. 2778), the ITAR, the Export Administration Regulations (15 C.F.R. 730 et seq.), regulations implemented by the Office of Foreign Assets Controls, United States Department of the Treasury (31 C.F.R. 500 et seq.), the Export and Imports Permit Act, the Special Economic Measures Act, the United Nations Act, the Freezing Assets of Corrupt Foreign Officials Act, the Defense Production Act, the Criminal Code or any regulations promulgated under the foregoing or any similar Law applicable in the United States, or elsewhere, relating to export controls and economic sanctions that are applicable to the Company (collectively, the “Export Control Laws”). The Company has not received any written notification or other communication alleging that it is not in compliance with the Export Control Laws, and the Company has not filed any voluntary disclosures of possible export violations relating to the Company or its operations. Neither the Company nor any of its officers or directors appears on the Specially Designated Nationals and Blocked Persons List of the Office of Foreign Assets Control of the United States Department of the Treasury, any listing of Designated Persons, terrorist or other entities under the Special Economic Measures Act, the United Nations Act, the Freezing Assets of Corrupt Foreign Officials Act, or the United States federal criminal code or on any other similar list maintained pursuant to any applicable Law.

(l) Except as disclosed on Schedule 5.15.7 of the Disclosure Schedules, the Company has not had any direct or indirect dealings with a person or country with whom United States persons are restricted from doing business with under regulations of the Office of Foreign Asset Control (the “OFAC”) of the United States Department of the Treasury (including those named on OFAC’s Specially Designated Nationals and Blocked Persons List), the Export Control Laws, or under any applicable Law or any other governmental action that is applicable to the Company.

(m) Neither the Company nor any of its Affiliates nor any officer, director, employee or, to the knowledge of the Stockholders or the Company, any agent or person performing services on the Company’s behalf, or any Affiliate thereof, has directly or indirectly, paid, offered, given promised to give or authorized to give any money, gift, payment or anything of value to any “Foreign Official” as defined in the United States Foreign Corrupt Practices Act of 1977 (the “FCPA”), public international organization as defined by the FCPA, political party, candidate for political office or other person (including any representative of any of the foregoing) for purposes of influencing or inducing any act or decision, or securing any improper advantage for Company in order to obtain or retain business for or with Company which: (A) is prohibited by the FCPA or any other anti-corruption, anti-bribery or similar applicable Law or are reasonably expected to subject the Company to any damage or penalty in any action; (B) if not given in the past, are reasonably expected to have had an adverse effect on the Company as reflected in any financial statements of the Company; (C) if not continued in the future, might adversely affect the Company; or (D) otherwise has the purpose or effect of public or commercial bribery, acceptance of or acquiescence in extortion, kickbacks or other unlawful or improper means of obtaining or retaining business or other unfair commercial advantage. Neither the Company nor any of its Affiliates nor any officer, director, employee or, to the knowledge of the Stockholders or the Company, any agent or Person performing services on the Company’s behalf, or any Affiliate thereof, has made any payment to any customer or supplier of the Company, or given any other consideration to any such customer or supplier in respect of the Company’s business that violates applicable Law.

(n) There has been no action, suit, inquiry, investigation (including any internal investigation) or any other proceeding, including, to the knowledge of the Stockholders or the Company, those threatened, involving the Company or any of its Affiliates, or any officer, director, employee or, to the knowledge of the Stockholders or the Company, any agent or other Person performing services on the Company's behalf, or any Affiliate thereof, concerning compliance with FCPA or any other applicable anti-corruption laws nor have any of the foregoing received any written communication alleging that they are not in compliance with, or that the Company is or has been the subject of any investigation by any governmental or regulatory agency concerning, the statutory and regulatory requirements under the FCPA.

5.16. Environmental Matters. Except as specifically disclosed on Schedule 5.16.1 of the Disclosure Schedules:

(a) To the knowledge of the Stockholders, the Company has conducted and is now conducting its operations, and the products of the Company have complied and are, in compliance in all material respects with all Environmental Laws. To the knowledge of the Stockholders, the Company holds and has been and is in compliance in all material respects with all Permits required under Environmental Laws for the conduct of the business of the Company ("Environmental Permits"), and all such Environmental Permits are in full force and effect. The Company has made or will make before the Closing timely application or notification for the renewal of all Environmental Permits for which Environmental Laws require that applications or notices must be filed on or before the Closing to maintain the Environmental Permits in full force and effect up to, through and after the Closing. Schedule 5.16.2 of the Disclosure Schedules lists all Environmental Permits.

(b) The Company has not in the past nor does the Company presently use, possess, generate, treat, manufacture, process, manage, handle, store, recycle, transport or dispose of ("Manages" or "Management," as the context requires) Hazardous Substances in quantities or in a manner which requires Environmental Permits, in products that require warnings or in a manner which has caused, causes or threatens to cause a Release.

(c) Neither the Company nor the Stockholders have received any written notice, citation, summons, order or complaint, no penalty has been assessed or is pending or, to the knowledge of the Stockholders or the Company, threatened by any third party (including any governmental agency) with respect to: (i) the Management, Release or threatened Release of Hazardous Substances by or on behalf of the Company or any of its predecessors, in relation to the past or present operations of the business of the Company, or with respect to exposure to Hazardous Substances; (ii) non-compliance with Environmental Laws; or (iii) failure to hold or comply with Environmental Permits. Neither the Company nor the Stockholders have received, and to their respective knowledge no one else has received on behalf of the Company, any request for information, notice of claims, demand or other notification that the Company or any Stockholder (or any of their respective predecessors) is or may be potentially responsible with respect to any investigation, cleanup, remedial action or other response action ("Remediation") of Hazardous Substances.

(d) To the knowledge of the Stockholders, none of the Leased Real Properties nor any property formerly owned, operated or leased by the Company or any of its respective predecessors is listed or proposed for listing on any list maintained by any governmental agency of sites requiring Remediation, and no Hazardous Substances generated or Managed by or on behalf of the Company or any of its predecessors has come to be located at any site identified on such list or otherwise requiring Remediation.

(e) All environmental inspections, investigations, studies, audits, tests, reviews or other analysis conducted by the Company with respect to the Leased Real Properties or any property formerly owned, operated or leased by the Company or any of the Company's predecessors or the operation of their respective businesses in the possession or control of any Stockholder or the Company have been provided or made available to Buyer, and all such environmental audits and analyses are listed on Schedule 5.16.3 of the Disclosure Schedules.

(f) To the knowledge of the Stockholders or the Company, there are no facts or circumstances related to environmental matters concerning the Company's operation of its business at the Leased Real Properties or any property formerly owned, operated or leased by the Company or any of its predecessors or the operation of the Company's business that could reasonably be expected to result in any future environmental claims, liabilities, expenses or responsibilities against Buyer or the Company, and neither the Stockholders nor the Company have retained or assumed, by contract, law or otherwise, any liability or responsibility for any environmental claims or conditions, including in connection with a Release or Remediation of Hazardous Substances. Stockholders make no representations as to environmental matters as to the Pennsylvania Biotechnology Center in general.

(g) This transaction will not require compliance with the Industrial Site Recovery Act, as amended.

5.17. Employee Benefit Matters.

(a) Except as set forth on Schedule 5.17 of the Disclosure Schedules, the Company has no "employee benefit plans" as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA") or other pension, retirement, supplemental retirement, deferred compensation, excess benefit, profit sharing, bonus, incentive, equity purchase, equity ownership, equity option, equity appreciation right, employment, severance, salary continuation, termination, change-of-control, health, life, disability, group insurance, vacation, holiday, and fringe benefit plan, program, contract or arrangement maintained, contributed to or required to be contributed to by the Company or any person, entity, trade or business (whether or not incorporated) that is treated with the Company as a single employer within the meaning of Section 414 of the Code (any such person, entity, trade or business an "ERISA Affiliate") for the benefit of any current or former employee, director, officer or independent contractor of the Company or under which the Company or any ERISA Affiliate has any liability (the "Benefit Plans"). To the knowledge of the Stockholders, each Benefit Plan complies with all applicable Laws (including ERISA and the Code and the regulations promulgated thereunder).

5.18. Taxes.

(a) (i) The Company has timely filed or caused to be filed with the appropriate federal, state, local, and foreign governmental entity or other authority (individually or collectively, "Taxing Authority") all Tax Returns required to be filed with respect to the Company and all Tax Returns are true, correct, and complete in all material respects; (ii) the Company has timely paid in full or caused to be paid in full all Taxes required to be paid by or with respect to the Company (whether or not shown on any Tax Return); (iii) there are no liens for Taxes upon the Company or its assets, except liens for current Taxes not yet due and payable; and (iv) the Company has not consented to extend the time in which any Tax may be assessed or collected by any Taxing Authority.

(b) As used in this Agreement: (i) "Taxes" means: (A) all income taxes (including any tax on or based upon net income, or gross income, or income as specially defined, or earnings, or profits, or selected items of income, earnings, or profits) and all gross receipts, estimated, sales, use, ad valorem, transfer, franchise, license, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, or windfall profit taxes, environment, alternative, or add-on minimum taxes, custom duties or other taxes, fees, assessments or charges of any kind whatsoever, together with any interest and any penalties, additions to tax or additional amounts imposed by any Taxing Authority; and (B) any liability for payment of amounts described in clause (i) whether as a result of transferee liability, joint and several liability for being a member of an affiliated, consolidated, combined, unitary or other group for any period, or otherwise by operation of law, and (iii) any liability for the payment of amounts described in clause (i) or (ii) as a result of any tax sharing, tax indemnity or tax allocation agreement or any other express or implied agreement to pay or indemnify any other person; and (ii) "Tax Return" means any return, report, information return or other document (including any related or supporting information or any amended return) filed or required to be filed with any Taxing Authority or other authority in connection with the determination, assessment, or collection of any Tax paid or payable or assets or the administration of any laws, regulations, or administrative requirements relating to any such Tax.

(c) Except as set forth on Schedule 5.18(c) of the Disclosure Schedules, there are no audits, examinations, investigations or other proceedings in respect of income or other Taxes of the Company that are in progress, nor has the Company received notice from any Taxing Authority of the commencement of any such audit, examination, investigation or other proceeding. No deficiency or proposed adjustment which has not been paid or resolved for any amount of Tax has been asserted or assessed by any Taxing Authority in writing against the Company. No Taxing Authority with which the Company does not file Tax Returns has claimed or threatened that the Company is or may be subject to taxation by that Taxing Authority.

(d) There is no agreement or arrangement with any Person pursuant to which the Company would have an obligation with respect to Taxes of another Person following the Closing.

(e) The Company: (i) has not been a member of an affiliated, combined, consolidated, or unitary Tax group for purposes of filing any Tax Return; and (ii) does not have any liability for the Taxes of any person under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local or foreign law), as a transferee, successor, by contract, or otherwise.

(f) The Company has withheld and paid all Taxes that it was required to withhold and pay, and has timely filed all information returns or reports, including Forms 1099 and W-2, that are required to be filed and has accurately reported all information required to be included on such returns or reports.

(g) The Company has properly and timely imposed, collected, and paid all sales or similar Taxes with respect to any product sold or service sold by the Company, as required under the applicable laws of any Taxing Authority.

(h) No closing agreements, private letter rulings, technical advice memoranda, or similar agreement or ruling have been entered into or issued by any Taxing Authority with respect to the Company. The Company is not subject to a power of attorney with respect to any Tax matters that would have continuing effect after the Closing.

(i) The Company will not be required to include any item of income in, or exclude any item of deduction from, taxable income for any taxable period (or portion thereof) ending after the Closing as a result of any: (i) adjustment under Section 481 of the Code resulting from a change in method of accounting for a Tax period beginning on or before the Closing Date; (ii) closing agreement as described in Section 7121 of the Code executed on or prior to the Closing Date; (iii) installment sale or open transaction disposition made on or prior to the Closing Date; (iv) prepaid amount received on or prior to the Closing Date; or (v) any election under Code Section 108(i) (or any similar provision of any state or local law).

(j) The Company is not a party to any agreement, contract, arrangement or plan that has resulted or could result, separately or in the aggregate, in the payment of any "excess parachute payment" within the meaning of Section 280G of the Code (or any similar provision of state, local or foreign Tax law).

(k) The Company has not distributed stock of another Person, or has had its stock distributed by another Person, in a transaction that was purported or intended to be governed in whole or in part by Code Section 355 or 361.

(l) The Company has not been a participant in or material advisor (within the meaning of Section 6112 of the Code) to any "reportable transaction" within the meaning of Treasury Regulations Section 1.6011-4.

5.19. Consents. Except as set forth on Schedule 5.19 of the Disclosure Schedules, no consent, approval, or authorization of, or exemption by, or filing with, any Governmental Authority or third party is required to be obtained or made by the Company or any Stockholder in connection with the execution, delivery, and performance by the Company or any Stockholder of this Agreement, or any Ancillary Agreement to which the Company or any Stockholder is a party or the taking by the Company of any other action contemplated hereby or thereby or the continuation after the Closing of the business of the Company as conducted prior to the Closing, except where failure to obtain such consent, approval, authorization would not have a Material Adverse Effect.

5.20. Employee Relations.

(a) The Company is not: (i) a party to or otherwise bound by any collective bargaining or other type of union agreement; (ii) a party to, involved in or, to the knowledge of the Stockholders or the Company, threatened by, any material labor dispute or material unfair labor practice charge; or (iii) currently negotiating any collective bargaining agreement, and the Company has not experienced any work stoppage during the last three (3) years.

(b) The Company has been and is in compliance in all material respects with all applicable laws respecting employment and employment practices, terms and conditions of employment and wages and hours, unemployment insurance, workers' compensation, equal employment opportunity, employment discrimination and immigration control, and the Company has not been nor is it engaged in any unfair labor practice. Except as disclosed on Schedule 5.20 of the Disclosure Schedules and except for any non-compliance or practices arising in the ordinary course which are immaterial, there are no outstanding claims against the Company (whether under regulation, contract, policy or otherwise) asserted by or on behalf of any present or former employee or job applicant of the Company on account of or for: (i) overtime pay, other than overtime pay for work done in the current payroll period; (ii) wages or salary for a period other than the current payroll period; (iii) any amount of vacation pay or pay in lieu of vacation time off, other than vacation time off or pay in lieu thereof earned in or in respect of the current fiscal year; (iv) any amount of severance pay or similar benefits; (v) unemployment insurance benefits; (vi) workers' compensation or disability benefits; (vii) any violation of any statute, ordinance, order, rule or regulation relating to employment terminations or layoffs; (viii) any violation of any statute, ordinance, order, rule or regulation relating to employee "whistleblower" or "right-to-know" rights and protections; (ix) any violation of any statute, ordinance, order, rule or regulations relating to the employment obligations of federal contractors or subcontractors; or (x) any violation of any regulation relating to minimum wages or maximum hours of work, and neither the Company nor the Stockholders are aware of any such claims which have not been asserted. No Person (including any governmental body) has asserted or threatened in writing any claims against the Company under or arising out of any regulation relating to discrimination or occupational safety in employment or employment practices.

5.21. Transactions with Related Parties. Except as described in Schedule 5.21.1 of the Disclosure Schedules, since January 1, 2011, no Stockholder or director, officer or employee of the Company, nor any Person under the control of an Affiliate or associate of any such Person, has or has had:

- (a) any contractual or other claims, express or implied, of any kind whatsoever against the Company;
- (b) other than a Stockholder's ownership of shares of Common Stock, any interest in any material property or assets used by the Company;
- (c) any direct or indirect ownership or other interest in any competitor of the Company; or
- (d) engaged in any other transaction with the Company (other than payment of salaries and commissions to employees in the ordinary course of business and cash dividends and distributions in respect of shares of Common Stock to the Stockholders).

Except as described in Schedule 5.21.2 of the Disclosure Schedules, no Stockholder or Person under the control of any Stockholder or other Affiliate of any Stockholder, has outstanding any loan, guarantee or other obligation of borrowed money made to or from the Company.

5.22. Insurance. Schedule 5.22.1 of the Disclosure Schedules contains a complete and correct list of all policies and contracts for insurance of which the Company is the owner, insured or beneficiary, or covering its properties or assets and true and correct copies of all such policies and contracts have been made available to Buyer. All such policies are outstanding and in full force and effect. There is no default with respect to any provision contained in any such policy, nor has there been any failure to give any notice with respect to or present any claim under any such policy in a timely fashion or in the manner or detail required by the policy, except as would not have a Material Adverse Effect. Except as set forth on Schedule 5.22.2 of the Disclosure Schedules: (i) all of such coverages are provided on an "occurrence" (as opposed to "claims made") basis; (ii) there are no outstanding claims under such policies; (iii) there are no premiums or claims due under such policies which remain unpaid; (iv) in the past three (3) years, no written notice of cancellation or non-renewal with respect to, or disallowance (other than reservation of rights by the insurer) of any material claim under, any such policy has been received; and (v) the Company has not been refused any insurance, nor have any of its coverages been limited by any insurance carrier to which it has applied for insurance or with which it has carried insurance during the last three (3) years.

5.23. Brokers. Neither the Stockholders nor the Company has retained any broker, finder or investment banking firm to act on their behalf in connection with the transactions contemplated by this Agreement or the Ancillary Agreements and no other Person is entitled to receive any brokerage commission, finder's fee or other similar compensation in connection with the transactions contemplated by this Agreement.

5.24. Compensation Arrangements; Officers and Directors. Schedule 5.24.1 of the Disclosure Schedules sets forth: (i) the names, titles, and current annual salary and any bonus, if applicable, of all present directors, officers and salaried employees of the Company, together with a statement of the full amount of all remuneration paid by the Company to each such person and to any director of the Company, during the year ended December 31, 2013 and the eight (8) month period ended August 31, 2014; and (ii) the names and titles of all directors and officers of the Company and of each trustee, fiduciary or plan administrators of each employee benefit plan of the Company. Except as set forth on Schedule 5.24.2 of the Disclosure Schedules, the Company has no presently effective powers of attorney or any obligations or liabilities, either actual, accrued, accruing or contingent, as guarantor, surety, cosigner, endorser, co-maker, indemnitor or otherwise, with respect to any obligation of any person.

5.25. Regulatory Disqualification. Neither the Company, nor any Stockholder nor any director, officer, employee, agent or Affiliate of the Company: (i) is excluded, suspended, debarred or otherwise ineligible to participate in any federal or state funded health care program; or (ii) has engaged in any conduct which could result in debarment or disqualification by any such federal or state funded health care program. To the knowledge of the Stockholders or the Company, no exclusion or suspension described in the previous sentence is pending or threatened.

5.26. HIPAA. Neither the Company nor any Stockholder has entered into any Business Associate Agreements (as such term is defined by the United States Department of Health and Human Services under HIPAA) as required by HIPAA with any of its customers, and neither Company nor any Stockholder receives any “protected health information,” as such term is defined under HIPAA.

5.27. Bank Accounts. The name of each bank in which the Company has an account or safe deposit box, the identifying numbers or symbols thereof and the names of all persons authorized to draw thereon or to have access thereto are set forth on Schedule 5.27 of the Disclosure Schedules.

5.28. Disclosure. No representation or warranty by the Stockholders or the Company in this Agreement, and no Ancillary Agreement, exhibit, certificate or schedule furnished or to be furnished to Buyer pursuant hereto, or in connection with the transactions contemplated hereby or thereby, contains or will contain any untrue statement of a material fact or fails to state a fact necessary to make the statements made therein correct in all material respects and not misleading.

ARTICLE VI  
REPRESENTATIONS AND WARRANTIES OF BUYER

Buyer hereby represents and warrants to the Stockholders as follows:

6.1. Organization. Buyer is a corporation duly organized, validly existing, and in good standing under the laws of the State of Delaware, and has all requisite corporate power and authority to carry on its business as it is now being conducted, and to execute, deliver, and perform this Agreement and each Ancillary Agreement to which it is a party, and to consummate the transactions contemplated hereby and thereby.

6.2. Corporate Power and Authority. The execution, delivery, and performance by Buyer of this Agreement, and each Ancillary Agreement to which Buyer is a party, and the consummation by Buyer of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate action on the part of Buyer. This Agreement has been, and each Ancillary Agreement to which Buyer is a party will be, duly and validly executed and delivered by Buyer and constitutes, or will constitute, the valid and binding obligation of Buyer, enforceable against Buyer in accordance with its terms.

6.3. No Conflict. The execution, delivery, and performance by Buyer of this Agreement and each Ancillary Agreement to which Buyer is a party, and the consummation by Buyer of the transactions contemplated hereby and thereby, does not and will not, with or without the giving of notice or the lapse of time, or both: (i) violate any provision of law, rule, or regulation to which Buyer is subject; (ii) violate any order, judgment, or decree applicable to Buyer; (iii) violate any provision of the articles of incorporation, bylaws or other corporate governance documents of Buyer; or (iv) violate or result in a breach of or constitute a default (or an event which might, with the passage of time or the giving of notice, or both, constitute a default) under, or require the consent of any third party under, or result in or permit the cancellation, termination or amendment of any provision of, or result in or permit the acceleration of the maturity or cancellation of performance of any obligation under, or result in the creation or imposition of any Encumbrance of any nature whatsoever upon any assets or property or give to others any interests or rights therein under any indenture, deed of trust, mortgage, loan or credit agreement, license, permit, contract, lease, or other agreement, instrument or commitment to which Buyer is a party or by which it may be bound or affected; except, in each case, for violations, breaches, defaults, required consents, terminations, accelerations, Encumbrances or rights that in the aggregate would not materially hinder or impair the ability of Buyer to perform its obligations hereunder or the consummation of the transactions contemplated hereby.

6.4. Consents. Other than the Buyer's board approval, no consent, approval, or authorization of, or exemption by, or filing with, any Governmental Authority is required to be obtained or made by Buyer in connection with the execution, delivery and performance by Buyer of this Agreement or any Ancillary Agreement to which Buyer is a party or the taking by Buyer of any other action contemplated hereby or thereby.

6.5. Brokers. Buyer has retained no broker, finder or investment banking firm to act on its behalf in connection with the transactions contemplated by this Agreement.

6.6. Purchase for Investment. Buyer is purchasing the securities being purchased by it pursuant to Section 2.1 hereof for investment and not with a view to any public resale or other distribution thereof, except in compliance with applicable securities laws. Buyer is financially able to bear the economic risk of its purchase of the Common Stock and its investment in the Company, including the total loss thereof.

6.7. Legal Proceedings. There are no actions, suits, claims, investigations or other legal proceedings pending or, to Buyer's knowledge, threatened against or by Buyer or any Affiliate of Buyer that challenge or seek to prevent, enjoin or otherwise delay the transactions contemplated by this Agreement.

6.8. Independent Investigation. Buyer has conducted its own independent investigation, review and analysis of the business, results of operations, prospects, condition (financial or otherwise) or assets of the Company, and acknowledges that it has been provided access to the personnel, properties, assets, premises, books and records, and other documents and data of Stockholders and the Company for such purpose. Buyer acknowledges and agrees that: (a) in making its decision to enter into this Agreement and to consummate the transactions contemplated hereby, Buyer has relied solely upon its own investigation and the express representations and warranties set forth in Article IV and Article V of this Agreement (including the related portions of the Disclosure Schedules) and materials uploaded to the dataroom; and (b) neither Stockholders nor any other Person has made any representation or warranty as to Stockholders, the Company or this Agreement, except as expressly set forth in Article IV and Article V of this Agreement (including the related portions of the Disclosure Schedules).

6.9. Sufficiency of Funds. Buyer has sufficient cash on hand or other sources of immediately available funds to enable it to make payment of the Closing Date Cash Purchase Price and the Deferred Payment and to consummate the transactions contemplated by this Agreement.

ARTICLE VII  
POST-CLOSING COVENANTS

7.1. Conduct of Business by the Company. During the period from the date of this Agreement until the Second Deferred Payment Date, except as set forth on Schedule 7.1 of the Disclosure Schedules, as consented to in writing in advance by the Stockholders or as otherwise permitted or required by this Section 7.1, the Buyer shall cause the Company to carry on its business in the ordinary course of business and as currently proposed by the Company to be conducted prior to the Closing (including in respect of research, development, and clinical trial activities and programs) and carry on such business in compliance with all applicable Laws and, to the extent consistent therewith, use all commercially reasonable efforts to preserve intact its current business organizations, keep available the services of its current officers, employees, and consultants, and preserve its relationships with customers, suppliers, licensors, licensees, distributors, and others having business dealings with it with the intention that its goodwill and ongoing business shall be unimpaired as of the Second Deferred Payment Date. For the avoidance of doubt, this Section 7.1 shall not limit the Buyer or any of its Affiliates from engaging in any of the activities set forth below, or entering into any of the agreements set forth below; provided, however, that Buyer shall not sell, transfer or encumber the Common Stock. In addition to, and without limiting the generality of, the foregoing, during the period from the date of this Agreement until the Second Deferred Payment Date, except as otherwise set forth on Schedule 7.1 of the Disclosure Schedules or as otherwise expressly required by this Agreement, without the consent of the Stockholders, the Company shall not:

(a) (i) declare, accrue, set aside or pay any dividends on, or make any other distributions (whether in cash, stock or property or any combination thereof); (ii) split, combine or reclassify any of its capital stock or issue or authorize the issuance of any other securities in respect of, in lieu of or in substitution for shares of its capital stock; (iii) enter into any contract with respect to the voting of its voting securities; or (iv) purchase, redeem or otherwise acquire any of its outstanding equity securities;

(b) issue, deliver, sell or grant any voting securities or pledge or otherwise encumber or subject to any lien any voting securities or any securities convertible into, or any rights, warrants or options to acquire, any such securities, including pursuant to contracts as in effect on the date hereof;

(c) amend its certificate of incorporation or bylaws, except as may be required by Law;

(d) directly or indirectly acquire: (i) by merging or consolidating with, or by purchasing assets of, or by any other manner, any Person or division, business or equity interest of any Person; or (ii) any asset or assets that, individually, has a purchase price in excess of \$[\*\*\*] or, in the aggregate, have a purchase price in excess of \$[\*\*\*], except for new capital expenditures, which shall be subject to the limitations of clause (h) below, and except for purchases of components, raw materials or supplies in the ordinary course of business;

(e) (i) sell, lease, license, sell and leaseback or otherwise subject to any lien or otherwise dispose of any of its properties or other assets (whether tangible or intangible) or any interests therein (including securitizations); or (ii) enter into, modify or amend any lease of real property or personal property;

(f) (i) incur any indebtedness, issue or sell any debt securities or calls, options, warrants or other rights to acquire any debt securities of the Company, guarantee any debt securities of another Person, enter into any “keep well” or other contract to maintain any financial statement condition of another Person or enter into any arrangement having the economic effect of any of the foregoing; or (ii) make any loans, advances or capital contributions to, or investments in, any other Person;

(g) make any new capital expenditure or expenditures, other than expenditures that individually are less than or equal to \$[\*\*\*] or, in the aggregate, are less than or equal to \$[\*\*\*];

(h) except as required by any Law or for those capital expenditures permitted under Section 7.04(h): (i) pay, discharge, settle or satisfy any liabilities or action, other than current liabilities reflected on the balance sheet included in the Recent Financial Statements and current liabilities incurred in the ordinary course of business since the date of the Recent Financial Statements; (ii) cancel any indebtedness; (iii) waive or assign any claims or rights; (iv) waive any benefits of, or agree to modify in any respect, or fail to enforce, or consent to any matter with respect to which consent is required under, any standstill or similar contract to which the Company is a party; or (v) waive any material benefits of, or agree to modify in any material respect, or, subject to the terms hereof, fail to enforce in any material respect, or consent to any matter with respect to which consent is required under, any material confidentiality or similar contract of the Company;

(i) initiate, launch or commence any sale, marketing, distribution, co-promotion or any similar activity with respect to any new product (including products under development) in or outside the United States;

(j) enter into any contract that would constitute a material contract or amend, modify or consent to the termination of any material contract or the Company’s rights thereunder, or waive, release or assign any rights or claims thereunder;

(k) enter into any contract which shall not terminate or be subject to termination for convenience, in each case, without cost, by the Company upon notice of thirty (30) calendar days or less;

(l) enter into, modify, amend or terminate any contract or waive, release, assign or fail to exercise or pursue any material rights or claims thereunder, which if so entered into, modified, amended, terminated, waived, released, assigned or not exercised or pursued would reasonably be expected to: (i) adversely affect in any material respect the operations or condition (financial or otherwise) of the Company; (ii) impair in any material respect the ability of the Company to perform its obligations under this Agreement; or (iii) prevent or materially delay the consummation of the transactions contemplated by this Agreement;

(m) enter into any contract to the extent consummation of the transactions contemplated by this Agreement or compliance by the Company with the provisions of this Agreement would reasonably be expected to conflict with, or result in a violation or breach of, or default (with or without notice or lapse of time, or both) under, or give rise to a right of, or result in, termination, cancellation or acceleration of any obligation or to the loss of a benefit under, or result in the creation of any lien in or upon any of the properties or other assets of the Company under, or require the Company to license or transfer any Company Intellectual Property Rights or other material assets under, or give rise to any increased, additional, accelerated or guaranteed right or entitlements of any third party under, or result in any material alteration of, any provision of such contract;

- (n) make any material changes to the Company's hepatitis B project plan in place as of the Closing;
- (o) use or disclose any Confidential Information (as hereinafter defined) except to carry out the business of the Company; or
- (p) authorize any of, or commit or agree to take any of the foregoing actions.

7.2. Director and Officer Indemnification and Insurance.

(a) Buyer agrees that all rights to indemnification, advancement of expenses and exculpation by the Company now existing in favor of each Person who is now, or has been at any time prior to the date hereof or who becomes prior to the Closing Date, an officer or director of the Company, as provided in the certificate of incorporation or by-laws of the Company, in each case as in effect on the date of this Agreement, shall survive the Closing Date and shall continue in full force and effect in accordance with their respective terms.

(b) The Company shall, and Buyer shall cause the Company to, maintain in effect for a period of [\*\*\*] after the Closing Date "tail" directors' and officers' liability insurance policies with at least the same coverage and amounts, and containing terms and conditions that are not less advantageous to the directors and officers of the Company as the Company's existing directors' and officers' liability insurance policies, in each case with respect to claims arising out of or relating to events which occurred on or prior to the date it obtains such tail policies (including in connection with the transactions contemplated by this Agreement).

(c) The obligations of Buyer and the Company under this Section 7.2 shall not be terminated or modified in such a manner as to adversely affect any director or officer to whom this Section 7.2 applies without the consent of such affected director or officer (it being expressly agreed that the directors and officers to whom this Section 7.2 applies shall be third-party beneficiaries of this Section 7.2, each of whom may enforce the provisions of this Section 7.2).

7.3. Drexel/Blumberg Patent License Agreement. Buyer shall cause the Company to continue to fulfill its obligations under the Patent License Agreement between the Company, Drexel University and the Baruch S. Blumberg Institute, dated October 8, 2013, the Patent License Agreement between the Company, Drexel University and the Baruch S. Blumberg Institute, dated October 18, 2013 and the Patent License Agreement between the Company, Drexel University and the Baruch S. Blumberg Institute, dated September 24, 2014.

ARTICLE VIII  
ADDITIONAL AGREEMENTS

8.1. Confidentiality.

(a) Each Stockholder shall, and shall cause its Affiliates and representatives to, keep confidential and not disclose to any other Person or use for its own benefit or the benefit of any other Person any confidential proprietary information, technology, know-how, trade secrets (including all results of research and development), product formulas, industrial designs, franchises, inventions or other intellectual property regarding the Company or its business and operations ("Confidential Information") in its possession or control. The obligations of the Stockholders under this Section 8.1 shall not apply to Confidential Information which: (i) is or becomes generally available to the public without breach of the commitment provided for in this Section; or (ii) is required to be disclosed by law, order or regulation of a court or tribunal or Governmental Authority; provided, however, that, in any such case, a Stockholder subject to such requirement shall notify Buyer, to the extent legally permitted, as early as reasonably practicable prior to disclosure to allow the Company or Buyer to take appropriate measures to preserve the confidentiality of such Confidential Information.

(b) From and after the Closing, except as permitted by Section 11.9 hereof, each party shall, and shall cause its Affiliates and its representatives to, keep confidential and not disclose to any other Person any of the terms of this Agreement or any Ancillary Agreement, except as required by applicable law or in connection with the enforcement by such party of its rights hereunder or the filing of applicable Tax Returns.

8.2. Further Assurances. At any time or from time to time after the Closing, Buyer shall, at the request of any Stockholder, execute and deliver any further instruments or documents and take all such further action as such Stockholder may reasonably request in order to evidence the consummation of the transactions contemplated hereby. At any time or from time to time after the Closing, each Stockholder shall, at the request of Buyer, execute and deliver any further instruments or documents and take all such further action as Buyer may reasonably request in order to evidence the consummation of the transactions contemplated hereby.

8.3. Buyer Confidentiality. Upon the effectiveness of the Closing hereunder, that certain Confidentiality Agreement, dated as of June 9, 2014, by and between Buyer and the Company, shall terminate. Notwithstanding the foregoing, in the event Buyer does not deliver the full Deferred Payment to the Stockholders by the Second Deferred Payment Date, then the Confidentiality Agreement shall be automatically reinstated without action by the parties and shall be deemed to have covered all disclosures during the period from the Closing to the Second Deferred Payment Date when it is reinstated.

8.4. Assistance with Books and Records. Immediately upon the Closing, the officers, directors and employees of the Company shall assist Buyer and its personnel, accountants, counsel and other representatives and provide unlimited access to the Company's properties, books and records and all other existing information concerning the business, properties and personnel of the Company as Buyer may request.

ARTICLE IX  
TAX MATTERS

9.1. Tax Returns.

(a) The Stockholders shall prepare and timely file or cause to be prepared and timely filed all Tax Returns of the Company required for all Pre-Closing Tax Periods (the "Pre-Closing Returns"), including any applications for Tax credits arising from any Pre-Closing Tax Period. The Pre-Closing Returns shall be prepared, where relevant, in a manner consistent with the Company's past practices except as otherwise required by applicable law. The Stockholders shall provide a copy of the Pre-Closing Returns to Buyer for review and comment at least thirty (30) calendar days prior to the application filing deadline for such returns and shall make all changes reasonably requested by Buyer. The Company shall timely pay or cause to be timely paid and shall be responsible for all Taxes due with respect to the Pre-Closing Returns.

(b) Buyer shall cause all other Tax Returns of the Company to be prepared and filed. With respect to any such Tax Return for a Straddle Period (the "Straddle Period Returns"), Buyer shall deliver such return (and a calculation of the portion of the Taxes shown on such return that are apportioned, as determined in Section 9.2, to the Interim Period) to the Stockholders for review and comment at least thirty (30) calendar days prior to the applicable filing deadline for such return. Buyer shall take into account in good faith any reasonable comments made by the Stockholders on such return.

(c) Notwithstanding the foregoing, in the event Buyer does not deliver the full Deferred Payment to the Stockholders by the Second Deferred Payment Date and the stock reverts back to the Stockholders, then the obligations of the Buyer under this Section 9.1 with respect to the filing of Tax Returns shall be assumed by the Stockholders on behalf of the Company, provided that Buyer agrees to cooperate and assist with any information as set forth in Section 9.4 below.

9.2. Tax Indemnification. After the Closing Date, the Stockholders shall indemnify and hold harmless the Company and Buyer from and against: (i) any Pre-Closing Taxes, including the Stockholders' liability for transfer Taxes under Section 9.5; and (ii) any increase in Tax liability resulting from the Company being liable for any Taxes of any Person as transferee or successor, by contract or otherwise for any Pre-Closing Tax Period or Interim Period; provided, however, that in the case of clauses (i) and (ii) above, the Stockholders shall be liable only to the extent that such a Tax exceeds the amount, if any, reserved for such Tax on the face of the Final Closing Statement and taken into account in determining the Final Adjustment Amount. The Stockholders shall reimburse Buyer for any Taxes of the Company that are the responsibility of the Stockholders pursuant to this Section 9.2 within thirty (30) business days after payment of such Taxes by Buyer or the Company. For purposes of calculating the liability of the Company for Taxes of any Interim Period, the portion of any Tax for a Straddle Period that is allocable to the Interim Period shall be deemed to equal: (i) in the case of Taxes based upon or related to income, gain or receipts, the amount that would be payable if the Straddle Period had ended on the Closing Date and the books of the Company were closed as of the close of such date; provided, however, that depreciation, amortization and cost recovery deductions will be taken into account in accordance with the principles of clause (iii) below; (ii) in the case of Taxes imposed on specific transactions or events, Taxes imposed on specific transactions or events occurring on or before the Closing Date; and (iii) in the case of Taxes imposed on a periodic basis, or in the case of any other Taxes not covered by clauses (i) or (ii) above, the amount of such Taxes for the entire Straddle Period multiplied by a fraction (a) the numerator of which is the number of calendar days in the period ending on the Closing Date and (b) the denominator of which is the number of calendar days in the entire Straddle Period.

9.3. Income Tax Refunds and Tax Credits. In the event that any income Tax refund or Tax credit is received by the Company in respect of any Pre-Closing Tax Period or Interim Period, the Company shall pay to the Stockholders an amount equal to (i) with respect to a refund, such refund plus any interest earned on such refund less any expenses incurred by the Company (including any income Tax reasonably expected to be imposed on such refund), except to the extent such refund is reflected as an asset on the Recent Balance Sheet or the Final Closing Statement and (ii) with respect to a Tax credit, the Stockholders shall receive the benefit of such Tax credit and may elect (a) to apply such Tax credit against Taxes owed for a Pre-Closing Tax Period or Interim Period, and/or (b) to receive the amount paid by a buyer of such Tax credit less any expenses incurred by the Company in the potential sale of such Tax credit after the Closing.

9.4. Assistance and Records. The parties shall provide each other with such assistance as each may reasonably request in connection with: (i) the preparation of Tax Returns required to be filed with respect to the Company; (ii) any audit or other examination by any Taxing Authority; (iii) any judicial or administrative proceedings relating to liability for Taxes; or (iv) any claim for refund in respect of such Taxes. Such assistance shall include making employees available to other parties and their counsel during regular business hours, providing additional information and explanation of any material to be provided, and furnishing to or permitting the copying during regular business hours by any party or its counsel of any records, returns, schedules, documents, work papers or other relevant materials which might reasonably be expected to be used in connection with any such return, audit, examination, proceeding or claim. Buyer will retain and upon the reasonable request of the Stockholders provide any records or information which may be relevant to any such return, audit, examination, proceeding or claim.

9.5. Transfer Taxes. All sales, use, documentary, transfer or similar Taxes imposed as a result of the transactions contemplated hereby shall be split equally by the Stockholders, on one hand, and Buyer, on the other hand, when due, and the Stockholders will, at their own expense, file all necessary Tax Returns and other documentation with respect to all such Taxes, and, if required by applicable law, Buyer will, and will cause the Company to, join in the execution of any such Tax Returns and other documentation.

9.6. Survival of Obligations. The obligations of the parties set forth in this Article IX shall be unconditional and absolute and shall remain in effect without limitation as to time.

#### ARTICLE X SURVIVAL AND INDEMNIFICATION

10.1. Survival. The representations and warranties under this Agreement or in any statement or certificate furnished or to be furnished pursuant hereto or in connection with the transactions contemplated hereby shall survive until [\*\*\*] after the Closing Date (the "Survival Period") and no action or claim for Losses resulting from any misrepresentation or breach of warranty shall be brought or made after the Survival Period, except that such time limitation shall not apply to:

(a) representations and warranties under Section 5.18 hereof (relating to Tax matters), which shall survive until [\*\*\*] after the expiration of the applicable statute of limitations (giving effect to any waiver or extension thereof);

(b) representations and warranties under Section 5.16 hereof (relating to environmental matters) or Section 5.17 hereof (relating to employee benefit matters), which shall survive until the third (3<sup>rd</sup>) anniversary of the Closing Date;

(c) representations and warranties under Sections 5.1 and 6.1 hereof (relating to organization), Sections 4.1, 5.2, and 6.2 hereof (relating to authority), Sections 4.3 and 5.4 hereof (relating to capitalization and ownership), Section 4.5 (relating to subsidiaries), Sections 5.23 and 6.5 (relating to brokers), all of which shall survive indefinitely;

(d) covenants contained herein, which shall survive indefinitely or for the period explicitly specified herein;

(e) any claims which have been specifically asserted and which are the subject of a written notice from the Stockholders to Buyer or from Buyer to the Stockholders, as may be applicable, prior to the expiration of the applicable Survival Period.

10.2. Several Indemnification. Each of the Stockholders shall severally and not jointly indemnify and defend Buyer, the Company, and each of their respective directors, officers, affiliates, employees, agents, and representatives, and shall hold each of them harmless from and against all Losses that are incurred or suffered by any of them in connection with or resulting from: (i) breaches of representations and warranties (the "Several Representations") made by such Stockholder in Sections 4.1, 4.2, and 4.3 hereof (relating to authority, no conflict, and title) and covenants (the "Several Covenants", and together with the Several Representations, the "Several Indemnity Items") made by such Stockholder in Section 8.1 hereof (relating to confidentiality); and (ii) the enforcement by Buyer or the Company of its indemnification rights related to breaches of Several Indemnity Items made by such Stockholder under this Agreement.

10.3. Joint and Several Indemnification.

(a) The Stockholders shall jointly and severally indemnify and defend Buyer, the Company, and each of their respective directors, officers, affiliates, employees, agents, and representatives, and shall hold each of them harmless from and against all Losses that are incurred or suffered by any of them in connection with or resulting from:

(i) any misrepresentation or breach of, or inaccuracy in, any representation or warranty that is not a Several Representation made by the Stockholders or the Company in this Agreement, any Ancillary Agreement or any schedule or Disclosure Schedule furnished or to be furnished to Buyer in connection with or as contemplated by this Agreement;

(ii) any breach of any covenant that is not a Several Covenant made by the Stockholders in this Agreement, any Ancillary Agreement or any schedule or Disclosure Schedule furnished or to be furnished to Buyer in connection with or as contemplated by this Agreement, whether such covenant requires performance prior to or after the Closing, or any breach of any covenant made by the Company in this Agreement, any Ancillary Agreement or any schedule or Disclosure Schedule furnished or to be furnished to Buyer in connection with or as contemplated by this Agreement, which covenant of the Company required performance prior to or at the Closing;

(iii) any certificate of incorporation, bylaws or other governance document provision, agreements or insurance policy provisions relating to the indemnification of any person who was a Stockholder or director or officer of the Company prior to the Closing (except if such Losses would be covered by the “tail” directors’ and officers’ liability insurance policies to be maintained by the Company pursuant to Section 7.2); and

(iv) the enforcement by Buyer or the Company of its indemnification rights related to breaches of items that are not Several Indemnity Items under this Agreement.

(b) Buyer and the Company shall jointly and severally indemnify the Stockholders and shall hold each of them harmless from and against all Losses that are incurred or suffered by any of them in connection with or resulting from:

(i) any misrepresentation or breach of any representation or warranty made by Buyer in this Agreement, any Ancillary Agreement or any schedule furnished or to be furnished to the Stockholders in connection with or as contemplated by this Agreement;

(ii) any breach of any covenant made by Buyer in this Agreement, any Ancillary Agreement or any schedule furnished or to be furnished to the Stockholders in connection with or as contemplated by this Agreement, whether such covenant requires performance prior to or after the Closing, or any breach of any covenant made by the Company in this Agreement, any Ancillary Agreement or any schedule furnished or to be furnished by the Company in connection with or as contemplated by this Agreement, which covenant of the Company requires performance after the Closing; and

(iii) the enforcement by the Stockholders of their indemnification rights under this Agreement.

(c) Notwithstanding the foregoing, the following limitations shall apply to indemnification:

(i) other than as specified in subparagraph (iii) below, the Stockholders shall not be obligated to provide any such indemnification for Losses pursuant to claims (other than Third Party Claims) under Section 10.3(a)(i) and Buyer and the Company shall not be obligated to provide any such indemnification for Losses pursuant to claims (other than Third Party Claims) under Section 10.3(b)(i), unless the aggregate amount that the Stockholders, Buyer or the Company, as applicable, are entitled to recover in respect of all such claims exceeds \$[\*\*\*] (the “Threshold”), in which case the Indemnitor will be liable for the entire amount of all Losses;

(ii) other than as specified in subparagraphs (iii) below, the maximum aggregate obligation of: (i) the Stockholders hereunder for Losses pursuant to claims under Section 10.3(a)(i); and (ii) Buyer and the Company hereunder for Losses pursuant to claims under Section 10.3(b)(i) shall not exceed \$[\*\*\*] (the “Maximum”); provided, however, that if the Deferred Payment has not been delivered by the Buyer pursuant to Section 2.5, then the Stockholders’ total liability under the foregoing Section shall be limited to \$[\*\*\*]; and

(iii) the Maximum shall not apply to Losses arising in respect of claims for misrepresentations and breach of warranties under Sections 5.1 and 6.1 hereof (relating to organization), Sections 4.1, 5.2, and 6.2 hereof (relating to authority), Sections 4.3 and 5.4 hereof (relating to capitalization and title), Section 5.5 hereof (relating to subsidiaries), Section 5.18 hereof (relating to Taxes) or Sections 5.23 and 6.5 hereof (relating to brokers), or claims under Sections 10.3(a)(ii)-(iv) or 10.3(b)(ii)-(iii) hereof, all of which may be asserted up to \$[\*\*\*]; provided, however, that if the Deferred Payment has not been delivered by the Buyer pursuant to Section 2.5, then the Stockholders’ total liability under the foregoing Sections shall be limited to \$[\*\*\*].

#### 10.4. Claims and Process.

(a) A party entitled to indemnification hereunder shall herein be referred to as an “Indemnitee.” A party obligated to indemnify an Indemnitee hereunder shall herein be referred to as an “Indemnitor.” As soon as is reasonable after an Indemnitee either: (i) receives notice of any claim or the commencement of any action by any third party which such Indemnitee reasonably believes may give rise to a claim for indemnification from an Indemnitor hereunder (a “Third Party Claim”); or (ii) gains any knowledge that it has sustained any Loss not involving a Third Party Claim or action which such Indemnitee reasonably believes may give rise to a claim for indemnification from an Indemnitor hereunder, such Indemnitee shall, if a claim in respect thereof is to be made against an Indemnitor under this Article X, notify such Indemnitor in writing of such claim, action or Loss, as the case may be; provided, however, that failure to notify the Indemnitor shall not relieve the Indemnitor of its indemnity obligation, except to the extent the Indemnitor is actually prejudiced in its defense of the action by such failure. Any such notification must be in writing and must state in reasonable detail the nature and basis of the claim, action or Loss, to the extent known. Except as provided in this Section 10.4, the Indemnitor shall have the right, using counsel reasonably acceptable to the Indemnitee, to contest, defend, litigate or settle any such Third Party Claim which involves (and continues to involve) solely monetary damages; provided, that the Indemnitor shall have notified the Indemnitee in writing of its intention to so contest within thirty (30) calendar days of the Indemnitee having given notice of the Third Party Claim to the Indemnitor and; provided, further, that (1) the Indemnitor expressly agrees in such notice to the Indemnitee that, as between the Indemnitor and the Indemnitee, the Indemnitor shall be solely obligated to fully satisfy and discharge the Third Party Claim; (2) the Third Party Claim is not, in the reasonable judgment of the Indemnitee, likely to result in Losses that will exceed the Maximum; (3) if reasonably requested to do so by the Indemnitee, the Indemnitor shall have made reasonably adequate provision to ensure the Indemnitee of the financial ability of the Indemnitor to satisfy the full amount of any adverse monetary judgment that may result from such Third Party Claim; (4) assumption by the Indemnitor of such Third Party Claim could not reasonably be expected to result in a Loss that would be materially detrimental to or would materially injure the Indemnitee’s reputation, future business prospects or position in any other Third Party Claim; and (5) the Indemnitor shall diligently contest the Third Party Claim (the conditions set forth in clauses (1), (2), (3), (4) and (5) being collectively referred to as the “Litigation Conditions”). The Indemnitee shall have the right to participate in, and to be represented by counsel (at its own expense) in any such contest, defense, litigation or settlement conducted by the Indemnitor; provided, that the Indemnitee shall be entitled to reimbursement therefor (X) if the Indemnitor shall lose its right to contest, defend, litigate, and settle the Third Party Claim or (Y) in the reasonable opinion of counsel to Indemnitee, a conflict or potential conflict exists between Indemnitee and Indemnitor that would make such separate representation advisable.

(b) The Indemnitor, if it shall have assumed the defense of any Third Party Claim as provided in this Agreement, shall not enter into any compromise or settlement of, or consent to the entry of any judgment arising from, any such Third Party Claim without the prior written consent of the Indemnitee (which consent shall not be unreasonably withheld or delayed). The Indemnitor shall not, without the prior written consent of the Indemnitee enter into any compromise or settlement which: (1) commits the Indemnitee to take, or to forbear to take, any action; (2) does not provide for a complete release by such third party of the Indemnitee; or (3) requires payment by the Indemnitee of any amount. The Indemnitee shall have the sole and exclusive right to settle any Third Party Claim, on such terms and conditions as it deems reasonably appropriate, to the extent such Third Party Claim involves injunctive or other non-monetary relief that binds the Indemnitee in any way, and shall have the right to settle any Third Party Claim involving monetary damages with the written consent of the Indemnitor, which consent shall not be unreasonably withheld or delayed. All expenses (including attorneys' fees) incurred by the Indemnitor in connection with the foregoing shall be paid by the Indemnitor. No failure by an Indemnitor to acknowledge in writing its indemnification obligations under this Article IX shall relieve it of such obligations to the extent such obligations exist.

(c) If an Indemnitee is entitled to indemnification against a Third Party Claim, and the Indemnitor fails to accept a tender of, or assume the defense of, a Third Party Claim pursuant to this Section 10.4, the Indemnitee shall have the right, without prejudice to its right of indemnification hereunder, in its discretion exercised in good faith, to contest, defend, and litigate such Third Party Claim, and may settle such Third Party Claim either before or after the initiation of litigation, at such time and upon such terms as the Indemnitee deems fair and reasonable so long as the settlement agreement (1) does not commit the Indemnitor to take, or to forbear to take, any action, (2) provides for a complete release by such third party of the Indemnitor, and (3) does not require any non-monetary payment by the Indemnitor; provided, that at least ten (10) calendar days prior to any such settlement, written notice of its intention to settle is given to the Indemnitor. If, pursuant to this Section 10.4, the Indemnitee so contests, defends, litigates or settles a Third Party Claim for which it is entitled to indemnification hereunder, the Indemnitee shall be reimbursed on a monthly basis by the Indemnitor for the reasonable attorneys' fees and other expenses of contesting, defending, litigating, and settling the Third Party Claim which are incurred from time to time.

(d) Notwithstanding anything herein to the contrary, Buyer shall retain the sole right to conduct and resolve any audit, administrative or judicial proceeding relating to Taxes some or all of which the Stockholders may not be obligated to indemnify Buyer and the Company pursuant to Article IX or Article X.

10.5. Materiality. For purposes of determining the existence of any misrepresentation, breach of warranty or nonfulfillment of any covenant or agreement, and calculating the amount of any Losses incurred in connection with any such misrepresentation, breach of warranty or nonfulfillment of any covenant or agreement, any and all references to material or Material Adverse Effect (or other correlative terms) shall be disregarded.

10.6. Right of Offset. Without limiting any other remedies available at law or in equity, Buyer and the Company shall have the right to set off against any payments due and owing from Buyer or the Company to the Stockholders to the extent Buyer or the Company has suffered a Loss and made a claim for indemnity against the Stockholders in this Agreement.

10.7. Sole Remedy. Subject to Section 10.6, the indemnification provided for in this Agreement shall be the sole remedy of the parties hereto and their respective successors or assigns in respect of any claim for monetary damages arising under or out of this Agreement or any Ancillary Agreement; provided, however, that this Section 10.7 shall not apply to Losses resulting from willful or intentional misrepresentations or fraud or for breaches of Section 2.5 or Article VIII.

10.8. No Circular Recovery. After the Closing, no Stockholder shall make any claim for indemnification against or contribution from Buyer or the Company by reason of the fact that such Stockholder was a controlling person, director, officer, employee, agent or other representative of the Company, or based on a similar theory that would result in circular recovery, in connection with any claim brought pursuant to this Agreement.

10.9. Effect of Investigation. The right to indemnification under this Article X shall not be affected by the knowledge of any party of any breach of a representation or warranty or covenant by any other party at any time. Each party shall have the right, irrespective of any knowledge or investigation, to rely fully on the representations and warranties and covenants of the other parties herein and the other Ancillary Agreements.

10.10. Tax Treatment. Any indemnification payments under this Article X or Article IX shall be treated for Tax purposes as adjustments to the Aggregate Purchase Price to the extent permitted by applicable law. To the extent any such indemnification payments are not permitted by applicable law to be treated as adjustments to the Aggregate Purchase Price for Tax purposes, the Indemnitor shall indemnify and hold harmless the Indemnitee for any Taxes imposed on any such payments (the "Additional Indemnity"), and for any Taxes imposed on any Additional Indemnity payments.

ARTICLE XI  
MISCELLANEOUS

11.1. Interpretive Provisions.

(a) Whenever used in this Agreement: (i) “including” (or any variation thereof) means including without limitation; (ii) reference to “Company” in the representations and warranties contained in this Agreement refers to Enantigen Therapeutics, Inc. and any of its subsidiaries and their respect predecessors; and (iii) any reference to gender includes all genders.

(b) For purposes of this Agreement, the Company shall be deemed to be an Affiliate of the Stockholders prior to the Closing and an Affiliate of Buyer after the Closing.

(c) The parties acknowledge and agree that: (i) each party and its counsel have reviewed the terms and provisions of this Agreement and have contributed to its drafting; (ii) the normal rule of construction, to the effect that any ambiguities are resolved against the drafting party, shall not be employed in the interpretation of it; and (iii) the terms and provisions of this Agreement shall be construed fairly as to all parties hereto and not in favor of or against any party, regardless of which party was generally responsible for the preparation of this Agreement.

11.2. Entire Agreement. This Agreement (including the Disclosure Schedules and the certificates and exhibits attached hereto) together with the Ancillary Agreements constitute the sole understanding and agreement of the parties with respect to the subject matter hereof.

11.3. Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties hereto; provided, however, that this Agreement may not be assigned by any Stockholder without the prior written consent of Buyer or be assigned by Buyer without the prior written consent of the Stockholder Representative, except that: (i) Buyer may, at its election and provided it remains liable for its obligations hereunder, assign this Agreement to any direct or indirect wholly owned subsidiary of Buyer; (ii) Buyer or the Company or any such assignee may make a collateral assignment of its rights (but not its obligations) under this Agreement to any lender providing financing to Buyer or the Company in connection with the Closing; (iii) Buyer may, at its election, assign this Agreement in connection with a sale of all or substantially all of the assets of Buyer or the Company (whether by merger, asset sell, equity sale or otherwise), (iv) each Stockholder may assign its rights (but not its obligations) under this Agreement to any Affiliate of such Stockholder, and (v) each Stockholder may assign this Agreement in connection with a sale of all or substantially all of the assets of such Stockholder (whether by merger, asset sell, equity sale or otherwise).

11.4. Headings. The headings of the Articles, Sections, and paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction hereof.

11.5. Modification and Waiver. No amendment, modification or alteration of the terms or provisions of this Agreement shall be binding unless the same shall be in writing and duly executed by the parties hereto, except that any of the terms or provisions of this Agreement may be waived in writing at any time by the party that is entitled to the benefits of such waived terms or provisions. No single waiver of any of the provisions of this Agreement shall be deemed to or shall constitute, absent an express statement otherwise, a continuous waiver of such provision or a waiver of any other provision hereof (whether or not similar). No delay on the part of any party in exercising any right, power, or privilege hereunder shall operate as a waiver thereof.

11.6. Expenses. Except as otherwise expressly provided herein, each of the parties hereto shall bear the expenses incurred by that party incident to this Agreement and the transactions contemplated hereby, including all fees and disbursements of counsel and accountants retained by such party, whether or not the transactions contemplated hereby shall be consummated.

11.7. Notices. Any notice, request, instruction or other document to be given hereunder by any party hereto to any other party shall be in writing and shall be given by delivery in person, by e-mail, by overnight courier or by registered or certified mail, postage prepaid (and shall be deemed given when delivered if delivered by hand, when sent by e-mail with an original copy thereof transmitted to the recipient by one of the other means described herein no later than three (3) business days thereafter, three (3) business days after mailing if mailed, and one (1) business day after deposited with an overnight courier service if delivered by overnight courier), as follows:

if to the Stockholder Representative to:

Pharmabridge, Inc.  
3805 Old Easton Road  
Doylestown, PA 18902  
Attn: [\*\*\*]  
E-Mail: [\*\*\*]

with a copy to:

[\*\*\*]

if to Buyer or the Company to:

OnCore Biopharma, Inc.  
3805 Old Easton Road  
Doylestown, PA 18902  
Attn: Chief Legal Officer  
E-Mail: [\*\*\*]

with a copy to:

[\*\*\*]

if to Escrow Agent to:

[\*\*\*]

or at such other address for a party as shall be specified by like notice.

11.8. Governing Law; Consent to Jurisdiction. This Agreement shall be construed in accordance with and governed by the laws of the State of Delaware applicable to agreements made and to be performed wholly within that jurisdiction. Each party hereto, for itself and its successors and assigns, irrevocably agrees that any suit, action or proceeding arising out of or relating to this Agreement may be instituted only in the courts of the State of Delaware located in Wilmington, Delaware or in the courts of the Commonwealth of Pennsylvania located in Bucks County, Pennsylvania, and generally and unconditionally accepts and irrevocably submits to the exclusive jurisdiction of the aforesaid courts and irrevocably agrees to be bound by any final judgment rendered thereby from which no appeal has been taken or is available in connection with this Agreement. Each party, for itself and its successors and assigns, irrevocably waives any objection it may have now or hereafter to the laying of the venue of any such suit, action or proceeding, including any objection based on the grounds of forum non conveniens, in the aforesaid courts. Each of the parties, for itself and its successors and assigns, irrevocably agrees that all process in any such proceedings in any such court may be effected by mailing a copy thereof by registered or certified mail (or any substantially similar form of mail), postage prepaid, to it at its address set forth in Section 11.7 hereof or at such other address of which the other parties shall have been notified in accordance with the provisions of Section 11.7 hereof, such service being hereby acknowledged by the parties to be effective and binding service in every respect. Nothing herein shall affect the right to serve process in any other manner permitted by law.

11.9. Public Announcements. Neither the Stockholders, the Company, nor Buyer shall make any public statements, including any press releases, with respect to this Agreement and the transactions contemplated hereby without the prior written consent of Buyer, in the case of the Stockholders, or the Stockholder Representative, in the case of Buyer (in either case, which consent shall not be unreasonably withheld, conditioned or delayed) except as may be required by law. If a public statement is required to be made by law, the parties shall consult with each other in advance as to the contents and timing thereof.

11.10. No Third Party Beneficiaries. This Agreement is intended and agreed to be solely for the benefit of the parties hereto and their permitted successors and assigns, and no other party shall be entitled to rely on this Agreement or accrue any benefit, claim, or right of any kind whatsoever pursuant to, under, by, or through this Agreement, except (i) for the provisions set forth in Section 7.2 and (ii) for Fox Rothschild LLP, which shall receive such benefit, claim and right and may rely on the provisions set forth in Section 2.5 hereto.

11.11. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original and all of which shall constitute the same instrument.

**[SIGNATURE PAGE FOLLOWS]**

**ONCORE BIOPHARMA, INC.**

By: /s/ Patrick Higgins \_\_\_\_\_

Name: Patrick T. Higgins

Title: Chief Executive Officer

**PHARMABRIDGE, INC., AS A  
STOCKHOLDER AND AS  
STOCKHOLDER REPRESENTATIVE**

By: /s/ Xiaodong Xu \_\_\_\_\_

Name: Xiaodong Xu

Title: President

**HEPATITIS B FOUNDATION**

By: /s/ Timothy Block \_\_\_\_\_

Name: Timothy Block

Title: President

**\*\*\***

By: \_\_\_\_\_

Name: \*\*\*

Title: \*\*\*

**[SIGNATURE PAGE TO STOCK PURCHASE AGREEMENT]**

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**SCHEDULE I**

**CLOSING DATE AND DEFERRED PAYMENT SCHEDULE AND PAYMENT INSTRUCTIONS**

Closing Date Payment:

Pharmabridge - \$947,291.16  
Hepatitis B Foundation - \$943,509.55

Deferred Payment

December 31, 2014:

Pharmabridge - \$501,000.00  
Hepatitis B Foundation - \$499,000.00

March 31, 2015:

Pharmabridge - \$1,002,000.00  
Hepatitis B Foundation - \$998,000.00

Payment Instructions

Pharmabridge:

[\*\*\*]

Hepatitis B Foundation:

[\*\*\*]

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**EXHIBIT 2.1**

**COMPANY STOCKHOLDER OWNERSHIP PERCENTAGE; COMMON STOCK TO BE SOLD TO BUYER**

<u>STOCKHOLDER</u>	<u>COMMON STOCK OWNED</u>	<u>OWNERSHIP PERCENTAGE</u>
Pharmabridge, Inc.	600 shares	50.1%
Hepatitis B Foundation	597 shares	49.9%

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**EXHIBIT 2.6**

**EARN-OUT**

**Development Milestones.** Subject to the terms and conditions set forth in this Agreement, upon the achievement of each of the triggering events listed in the table below (each, a “Development Milestone”), Buyer shall pay to each Stockholder as instructed in the Stockholder Notice (as defined below) for each such payment, for distribution to the Stockholders, a cumulative payment equal to the corresponding development milestone payment below (each, a “Development Milestone Payment”), within fifteen (15) business days of achievement of such Development Milestone:

DEVELOPMENT MILESTONES	DEVELOPMENT MILESTONE PAYMENT	
	First Earn-Out Product*	Second Earn-Out Product**
Enrollment of the first patient in a Phase 1b Clinical Trial in HBV infected patients	[***]	[***]
Positive data from the first Phase 1b Clinical Trial in HBV infected patients that enables another clinical study	[***]	[***]
Enrollment of first patient in the first Phase 2 Clinical Trial the design of which, if successful, would enable a Phase 3 Clinical Trial	[***]	[***]
Enrollment of the first patient in the first Phase 3 Clinical Trial	[***]	[***]
Filing and acceptance for filing of the first Regulatory Approval in the United States for an Earn-Out Product	[***]	[***]
Filing and acceptance for filing of the first Regulatory Approval for an Earn-Out Product in either (i) the EMA or (ii) one (1) of the Major EU Countries	[***]	[***]
Filing and acceptance for filing of the first Regulatory Approval for an Earn-Out Product in one (1) Asian country	[***]	[***]
Receipt of the first Regulatory Approval in the United States for an Earn-Out Product	[***]	[***]
Receipt of the first Regulatory Approval for an Earn-Out Product in either (i) the EMA or (ii) one (1) of the Major EU Countries	[***]	[***]
Receipt of the first Regulatory Approval for an Earn-Out Product in one (1) Asian country	[***]	[***]

\* First Earn-Out Product means the first Capsid Product or HBsAg Product to be developed.

\*\* Second Earn-Out Product means the second product to be developed that is either a Capsid Product or a HBsAg Product and that contains a different Capsid Compound or HBsAg Compound from the First Earn-Out Product.

Each of the foregoing Development Milestone Payments shall be payable only once regardless of the number of times a given Development Milestone is achieved. In the event a Development Milestone is "skipped," but a later Development Milestone is achieved, then the Development Milestone Payment with respect to the "skipped" Development Milestone shall be paid with the next Development Milestone Payment. In addition, in the event that an Earn-Out Product achieves a given Development Milestone and the development or commercialization of such Earn-Out Product is subsequently discontinued, then the Development Milestones that were paid with respect to such discontinued Earn-Out Product shall not be paid again for any subsequent Earn-Out Product, but any unpaid Development Milestones with respect to a discontinued Earn-Out Product shall be paid with respect to any subsequent Earn-Out Product upon achievement of the triggering events associated with such unpaid Development Milestones.

**Sales-Based Milestones.**

Subject to the terms and conditions set forth in this Agreement, the first time that cumulative, worldwide Net Sales of the First HBV Product exceeds a threshold set forth in the table below, Buyer shall pay to each Stockholder as instructed in the Stockholder Notice for each such payment, for distribution to the Stockholders, a cumulative milestone payment equal to the corresponding sales-based milestone payment below (each, a "Sales-Based Milestone Payment"), payable as noted below:

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SALES-BASED MILESTONE	SALES-BASED MILESTONE PAYMENT	PAYABLE
Cumulative worldwide Net Sales of the First HBV Product equal to or in excess of \$100,000,000	[***]	Within fifteen (15) business days of achievement
Cumulative worldwide Net Sales of the First HBV Product equal to or in excess of \$250,000,000	[***]	Payable within fifteen (15) business days of achievement, but no sooner than first day of a new fiscal year after payment of the first Sales-Based Milestone Payment
Cumulative worldwide Net Sales of the First HBV Product equal to or in excess of \$500,000,000	[***]	Payable within fifteen (15) business days of achievement, but no sooner than first day of a new fiscal year after payment of the second Sales-Based Milestone Payment
Cumulative worldwide Net Sales of the First HBV Product equal to or in excess of \$1,000,000,000	[***]	Payable within fifteen (15) business days of achievement, but no sooner than first day of a new fiscal year after payment of the third Sales-Based Milestone Payment

Notwithstanding anything contained in this Agreement to the contrary, each Sales-Based Milestone Payment shall be payable only upon the first achievement of such Sales-Based Milestone, and no amounts shall be due for subsequent or repeated achievements of such Sales-Based Milestone.

**Earn-Out Payments.**

(a) **Earn-Out Rates.** Subject to the terms and conditions set forth in this Agreement, commencing upon the First Commercial Sale by Buyer, any of its Affiliates (including Company) or any licensee or sublicensee, of the First HBV Product and ending when the cumulative worldwide Net Sales of such First HBV Product reach \$[\*\*\*] and the cumulative amount of Earn-Out Payments paid or due to be paid to the Stockholders total \$[\*\*\*], Buyer shall pay to each Stockholder as instructed in the Stockholder Notice for each such payment, for distribution to the Stockholders, an amount on quarterly, worldwide Net Sales of such First HBV Product (an "Earn-Out Payment") equal to [\*\*\*]% of Net Sales of such First HBV Product. For the avoidance of doubt, no further Earn-Out Payments shall be due after the cumulative worldwide Net Sales of the First HBV Product reach \$[\*\*\*].

(b) **Earn-Out Payments.** Buyer shall calculate all Earn-Out Payments payable to the Stockholders for each calendar quarter at the end of such calendar quarter, which amounts shall be converted to and paid in US Dollars. Buyer shall pay to the Stockholder Representative the Earn-Out Payments due with respect to a given calendar quarter within [\*\*\*] calendar days after the end of such calendar quarter.

### **Reports and Notices.**

The Buyer shall, within 5 business days of any payment under this Exhibit 2.6 becoming due and owing to the Stockholders on account of the Development Milestones, Sales-Based Milestones and Earn-Out Payments, send a notice to the Stockholder Representative, which shall include a statement setting forth in reasonable detail the calculation of such Earn-Out, including, if applicable, the amount billed or invoiced and Net Sales of the First HBV Product in each country during the applicable calendar quarter (including such amounts expressed in local currency and as converted to US Dollars) and, if applicable, the details of any Development Milestone. The Stockholder Representative shall thereafter send a notice to the Buyer (the "Stockholder Notice") setting forth the amounts to be paid to each Stockholder (which amounts may not exceed the total amount owed to the Stockholders and which payments may not be divided into more than two payments without the Buyer's consent) along with detailed payment instructions, in the form of Schedule I to this Agreement.

### **Audit Rights.**

The Company shall, and Buyer shall cause the Company to: (i) keep complete and accurate records in reasonable detail to enable the Development Milestone Payments, the Sales-Based Milestone Payments and Earn-Out Payments payable hereunder to be determined; and (ii) provide Stockholders and their accountants and advisors with reasonable access to all of the books and records of the Company necessary to conduct an audit of Net Sales and all of the fees and other payments payable under this Agreement (an "Audit"). Access will be made available: (a) during normal business hours; and (b) in a manner reasonably designed to facilitate Stockholders' Audit without unreasonable disruption to the Company's business. Each Audit shall begin upon the date specified by the Stockholders in a notice to the Company, and shall be completed as soon as reasonably practicable thereafter. Such notice shall be given to the Company a minimum of ten (10) business days prior to the commencement of the Audit. No more than one Audit may be performed in any fiscal year. The Company shall pay to the Stockholders the amount of any underpayment determined by the Audit, plus accrued interest, within thirty (30) days of the date of the auditor's determination. If the Audit determines that the Company has underpaid any payment by [\*\*\*] or more, then the Company will also promptly pay the costs and expenses of the Stockholders and their accountants in connection with the Audit.

### **Information Rights.**

The Company shall, and Buyer shall cause the Company to, deliver to the Stockholders quarterly reports (no later than 30 days after the end of each quarter) on the status of clinical trials, applications for regulatory approvals, and information relating to the development of Earn-Out Products. Notwithstanding the foregoing, Buyer may cease providing the foregoing information during the period starting with the date thirty (30) days before the Buyer's good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the Securities and Exchange Commission rules applicable to such registration statement and related offering; provided that Buyer's covenants under this Section shall be reinstated at such time as Buyer is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

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**Survival.**

The terms of this Exhibit 2.6 shall survive the Closing and shall remain in effect without limitation as to time, provided, however, that terms of this Exhibit 2.6 shall terminate immediately if the Common Stock is transferred back to the Stockholders pursuant to the terms of Section 2.5 hereof.

If any of the intellectual property subject to this Exhibit 2.6 is sold or otherwise transferred by Buyer or the Company following the Closing, it shall be sold or transferred subject to, and the buyer or transferee shall assume, the terms of this Exhibit 2.6.

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**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 Quarterly Report on 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 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 6, 2015

/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 Quarterly Report on 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 6, 2015

/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 on Form 10-Q of Tekmira Pharmaceuticals Corporation (the "Company") for the quarter ended March 31, 2015, 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 6, 2015

/s/ Mark Murray

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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 on Form 10-Q of Tekmira Pharmaceuticals Corporation (the "Company") for the quarter ended March 31, 2015, 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 6, 2015

/s/ Bruce Cousins

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