## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

## **FORM 10-Q**

(Mark One)

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

FOR THE QUARTERLY PERIOD ENDED June 30, 2014

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

FOR THE TRANSITION PERIOD FROM

Commission file number: 001-33185

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# **MEDICINOVA, INC.**

(Exact name of registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)

4275 Executive Drive, Suite 650 La Jolla, CA (Address of Principal Executive Offices) 33-0927979 (I.R.S. Employer Identification No.)

> 92037 (Zip Code)

> > Accelerated filer

Smaller reporting company

X

(858) 373-1500

(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  $\boxtimes$  No  $\square$ 

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 (232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  $\boxtimes$  No  $\square$ 

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

Large accelerated filer  $\Box$ 

Non-accelerated filer

 $\Box$  (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 August 8, 2014, the registrant had 24,146,419 shares of Common Stock (\$0.001 par value) outstanding.

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## PART I. FINANCIAL INFORMATION

## ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS.

## MEDICINOVA, INC.

## CONSOLIDATED BALANCE SHEETS

(unaudited)

	June 30, 2014 (Unaudited)	December 31, 2013
Assets	(******,	
Current assets:		
Cash and cash equivalents	\$ 13,496,587	\$ 6,700,493
Receivable	—	6,008,553
Prepaid expenses and other current assets	907,921	1,673,560
Total current assets	14,404,508	14,382,606
Goodwill	9,600,241	9,600,241
In-process research and development	4,800,000	4,800,000
Investment in joint venture	682,942	680,982
Property and equipment, net	65,686	82,414
Long-term deposits	10,699	
Total assets	\$ 29,564,076	\$ 29,546,243
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 38,029	\$ 33,894
Accrued expenses	633,569	240,148
Accrued compensation and related expenses	424,805	186,393
Total current liabilities	1,096,403	460,435
Long-term deferred rent and lease liability	16,637	9,889
Deferred tax liability	1,956,000	1,956,000
Long-term deferred revenue	1,694,163	1,694,163
Total liabilities	4,763,203	4,120,487
Stockholders' equity:		
Preferred stock, \$0.01 par value; 3,000,000 shares authorized at June 30, 2014 and December 31, 2013;		
220,000 shares issued and outstanding at June 30, 2014 and December 31, 2013	2,200	2,200
Common stock, \$0.001 par value; 100,000,000 shares authorized at June 30, 2014 and December 31, 2013;		
24,146,419 and 22,495,443 shares issued and outstanding at June 30, 2014 and December 31, 2013,		
respectively	24,147	22,495
Additional paid-in capital	330,712,810	326,868,578
Accumulated other comprehensive loss	(77,337)	(80,803)
Accumulated deficit	(305,860,947)	(301,386,714)
Total stockholders' equity	24,800,873	25,425,756
Total liabilities and stockholders' equity	\$ 29,564,076	\$ 29,546,243

See accompanying notes.

## CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS (Unaudited)

	Three mor June		Six mont June	
	2014	2013	2014	2013
Revenues	\$ —	\$ _	\$ —	\$ 3,257
Operating expenses:				
Research, development and patents	835,614	946,105	1,583,531	1,642,077
General and administrative	1,295,427	1,842,092	2,911,243	3,566,671
Total operating expenses	2,131,041	2,788,197	4,494,774	5,208,748
Operating loss	(2,131,041)	(2,788,197)	(4,494,774)	(5,205,491)
Other expense	—	(1,092)		(5,525)
Interest expense	(181)	—	(304)	
Other income	11,001	5,049	23,935	6,517
Loss before income taxes	(2,120,221)	(2,784,240)	(4,471,143)	(5,204,499)
Income taxes	(1,547)	(1,789)	(3,090)	(544)
Net loss applicable to common stockholders	\$ (2,121,768)	\$ (2,786,029)	\$ (4,474,233)	\$(5,205,043)
Basic and diluted net loss per common share	\$ (0.09)	\$ (0.14)	\$ (0.19)	\$ (0.27)
Shares used to compute basic and diluted net loss per common share	24,141,485	20,299,164	23,920,782	19,002,419
Net loss applicable to common stockholders	\$ (2,121,768)	\$ (2,786,029)	\$ (4,474,233)	\$ (5,205,043)
Other comprehensive loss, net of tax:				
Foreign currency translation adjustments	797	(3,724)	3,466	(10,637)
Comprehensive loss	\$(2,120,971)	\$ (2,789,753)	\$(4,470,767)	\$(5,215,680)

See accompanying notes

# CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

	Six months ended June 30,	
	2014	2013
Operating activities:		# (= a a = a (a)
Net loss	\$ (4,474,233)	\$ (5,205,043)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:	10.0 10.0	
Non-cash stock-based compensation	486,420	521,286
Amortization of Kissei upfront payment		(3,257)
Depreciation and amortization	20,500	67,282
Change in value of equity method investment	(1,960)	
Gain on disposal of assets		(4,800)
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	760,424	(118,567)
Accounts payable, accrued expenses and deferred rent	402,178	(238,489)
Accrued compensation and related expenses	238,412	262,686
Receivable	6,008,553	
Net cash provided by (used in) operating activities	3,440,294	(4,718,902)
Investing activities:		
Acquisition of property and equipment	(3,523)	(44,322)
Proceeds from sales of property and equipment	—	4,800
Net cash used in investing activities	(3,523)	(39,522)
Financing activities:		
Proceeds from issuance of common stock and warrants, net of issuance costs	3,329,055	12,758,677
Proceeds from issuance of common stock for ESPP, net of issuance costs	30,409	6,697
Net cash provided by financing activities	3,359,464	12,765,374
Effect of exchange rate changes on cash	(141)	
Net increase in cash and cash equivalents	6,796,094	8,006,950
Cash and cash equivalents, beginning of period	6,700,493	4,010,530
Cash and cash equivalents, end of period	\$13,496,587	\$12,017,480
Supplemental disclosures of cash flow information:		
Income taxes paid	\$ 2,701	\$ 2,745

See accompanying notes.

#### Notes to Consolidated Financial Statements (Unaudited)

## **1. Interim Financial Information**

#### **Organization and Business**

The Company was incorporated in the state of Delaware in September 2000 and is a public company. The Company's common stock is listed in both the U.S. and Japan and trades on the NASDAQ Global Market and the JASDAQ Market of the Tokyo Stock Exchange. The Company is a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of serious diseases with unmet medical needs and a commercial focus on the U.S. market. The Company is currently focusing its development activities on MN-166 (Ibudilast) for the treatment of neurological disorders, MN-221(Bedoradrine), for the treatment of acute exacerbations of asthma, MN-001 (Tipelukast) for the treatment of NASH (nonalcoholic steatohepatitis), and MN-029 (Denibulin) for the treatment of solid tumors.

#### **Basis of Presentation**

The accompanying unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (GAAP) for interim financial information and with the instructions of the Securities and Exchange Commission (SEC) on Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, they do not include all of the information and disclosures required by GAAP for complete financial statements. In the opinion of management, the consolidated financial statements include all adjustments necessary, which are of a normal and recurring nature, for the fair presentation of the Company's financial position and of the results of operations and cash flows for the periods presented. The accompanying unaudited consolidated financial statements of the Company and its wholly owned subsidiaries.

These financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto for the year ended December 31, 2013 included in the Company's Annual Report on Form 10-K filed with the SEC. The results of operations for the interim period shown in this report are not necessarily indicative of the results that may be expected for any other interim period or for the full year. The balance sheet at December 31, 2013 has been derived from the audited financial statements at that date, but does not include all of the information and footnotes required by GAAP for complete financial statements.

#### **Research, Development and Patents**

Research and development costs are expensed in the period incurred. Research and development costs primarily consist of salaries and related expenses for personnel, facilities and depreciation, research and development supplies, licenses and outside services. Such research and development costs totaled \$0.7 million and \$0.8 million for the three-months ended June 30, 2014 and 2013, respectively. For the six months ended June 30, 2014 and 2013 research and development costs totaled \$1.4 million and \$1.3 million for the six months ended June 30, 2014 and 2013, respectively.

Costs related to filing and pursuing patent applications are expensed as incurred, as recoverability of such expenditures is uncertain. The Company includes all external costs related to the filing of patents on developments in Research, Development and Patents expenses. Such patent-related expenses totaled \$0.1 million for the three-months ended June 30, 2014 and 2013. For the six months ended June 30, 2014 and 2013, patent-related expenses totaled \$0.2 million and \$0.3 million for the six months ended June 30, 2014 and 2013, respectively.

#### Use of Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and the accompanying notes. Actual results could differ from those estimates.

## **Recently Issued Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board ("FASB") and the International Accounting Standards Board "(IASB") jointly issued Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts from Customers, which supersedes the revenue recognition requirements in ASC 605, Revenue Recognition. ASU 2014-09 is a comprehensive new revenue recognition standard that will supersede nearly all existing revenue recognition guidance under US GAAP and IFRS. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies will need to use more judgment and make more estimates than under current authoritative guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to

include in the transaction price and allocating the transaction price to each separate performance obligation. The standard is effective for public entities for annual and interim periods beginning after December 15, 2016. Early adoption is not permitted under US GAAP. The adoption of this guidance is not expected to have a material impact on the Company.

In July 2013, the FASB issued ASU 2013-11, Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists, a new accounting standard update on the financial statement presentation of unrecognized tax benefits. The new guidance provides that a liability related to an unrecognized tax benefit would be presented as a reduction of a deferred tax asset for a net operating loss carryforward, a similar tax loss or a tax credit carryforward if such settlement is required or expected in the event the uncertain tax position is disallowed. The new guidance became effective for the Company on January 1, 2014 and it should be applied prospectively to unrecognized tax benefits that exist at the effective date with retrospective application permitted. The adoption of this guidance did not have a material impact on the Company.

#### 2. Revenue Recognition

#### **Revenue Recognition Policy**

Revenues consist of milestone payments and research and development services. Milestone payments are recognized as revenue upon achievement of pre-defined scientific events, which require substantive effort, and for which achievement of the milestone was not readily assured at the inception of the agreement. Milestones that do not meet the criteria for accounting under the milestone method because the payments are solely contingent upon the performance of a third party are accounted for as contingent revenue. Research and development services are recognized as research costs are incurred over the period the services are performed. For all other revenue the Company recognizes revenues when all four of the following criteria are met: (1) persuasive evidence that an arrangement exists; (2) delivery of the products and/or services has occurred; (3) the selling price is fixed or determinable; and (4) collectability is reasonably assured.

#### **Genzyme** Corporation

In December 2005, Avigen, Inc. and Genzyme Corporation entered into an Assignment Agreement (Genzyme Agreement) in which Genzyme acquired certain gene therapy intellectual property, programs and other related assets from Avigen in exchange for an initial \$12.0 million payment, and Avigen could receive additional development milestone payments, sublicensing fees and royalty payments based on the successful development of products by Genzyme utilizing technologies previously developed by Avigen. Avigen was subsequently acquired by the Company in December 2009 along with Avigen's rights and obligations under the Genzyme Agreement. If Genzyme fails to diligently pursue the commercialization or marketing of products using the assigned technology, as specified in the Genzyme Agreement, some of the rights assigned could revert back to the Company at a future date.

The development milestones outlined in the Genzyme Agreement do not meet the definition of a substantive milestone obligation under authoritative guidance on revenue recognition for milestone payments, as Genzyme is responsible for the development of the product and there is no further substantive service effort required by the Company. The Company determined that a non-substantive milestone in the Genzyme Agreement had been earned, and license revenue and a receivable of \$6.0 million was recorded during 2013, as no future Company performance obligations exist. The Company received payment of the amount receivable in January 2014.

#### Kissei Pharmaceutical Co., Ltd

In October 2011, the Company entered into an agreement with Kissei Pharmaceutical Co., Ltd., or Kissei, to perform research and development services relating to MN-221 in exchange for a non-refundable upfront payment of \$2.5 million. Under the terms of the agreement, the Company is responsible for all costs to be incurred in the performance of these services. Certain of these research and development services were completed in 2013 and 2012, and the remaining services are expected to be delivered and completed at a future date. The Company assessed the deliverables in accordance with the authoritative guidance and concluded the existence of one deliverable, research and development services. As such, revenue is being recognized as the research and development services are performed. The amount received from Kissei, net of the amount recorded as revenue, is included on the balance sheet as long-term deferred revenue and will be recognized as revenue as the remaining services are performed. Revenue recorded in the six months ended June 30, 2014 and 2013 was zero and \$3,257, respectively. No revenue was recorded in the three months ended June 30, 2013 and 2014.

#### 3. Fair Value Measurements

Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, a three-tier fair value hierarchy has been established, which prioritizes the inputs used in measuring fair value as follows:

- Level 1: Observable inputs such as quoted prices in active markets;
- Level 2: Inputs are quoted prices for similar items in active markets or inputs are quoted prices for identical or similar items in markets that are not active near the measurement date; and
- Level 3: Unobservable inputs due to little or no market data, which require the reporting entity to develop its own assumptions

Cash and cash equivalents, including money market accounts, of \$13.5 million and \$6.7 million measured at fair value as of June 30, 2014 and December 31, 2013, respectively, are classified within Level 1.

#### 4. Joint Venture

The Company entered into an agreement to form a joint venture company with Zhejiang Medicine Co., Ltd. and Beijing Medfron Medical Technologies Co., Ltd. (formerly Beijing Make-Friend Medicine Technology Co., Ltd.) effective September 27, 2011. The joint venture agreement provides for the joint venture company, Zhejiang Sunmy Bio-Medical Co., Ltd. ("Zhejiang Sunmy" or "JV Company"), to develop and commercialize MN-221 in China and pursue additional compounds to develop. A sublicense agreement would be required under which Zhejiang Sunmy would license MN-221 from the Company and, as of the date of this filing, no such sublicense agreement has been entered into. In accordance with the joint venture agreement, in March 2012 the Company paid \$680,000 for a 30% interest in Zhejiang Sunmy. The other parties to the joint venture agreement to allow for the departure of Zhejiang Medicine Co., Ltd. subject to the approval of the government of the People's Republic of China. Through the date of this filing, the Chinese government has not approved any amendment to the JV Company. Upon approval by the Chinese government, Beijing Medfron Medical Technologies Co., Ltd. and MediciNova will each have a 50% interest in the JV Company.

Zhejiang Sunmy is a variable interest entity for which the Company is not the primary beneficiary as the Company does not have a majority of the board seats and does not have power to direct or significantly influence the actions of the entity. The activities of Zhejiang Sunmy are accounted for under the equity method whereby the Company absorbs any loss or income generated by Zhejiang Sunmy according to the Company's percentage ownership. At June 30, 2014, the investment is reflected as a long-term asset on the Company's consolidated balance sheet which represents the investment in Zhejiang Sunmy, net of the Company's portion of any generated loss or income.

#### 5. Stock-based Compensation

#### **Stock Incentive Plans**

In June 2013, the Company adopted the 2013 Equity Incentive Plan, or 2013 Plan, under which the Company may grant stock options, stock appreciation rights, restricted stock, restricted stock units and other awards to individuals who are then employees, officers, non-employee directors or consultants of the Company or its subsidiaries. The 2013 Plan is the successor to the Company's Amended and Restated 2004 Stock Incentive Plan, or 2004 Plan, which was in turn the successor to the Company's 2000 General Stock Incentive Plan, or 2000 Plan (together, the Prior Plans). A total of 2,500,000 shares of common stock were initially reserved for issuance under the 2013 Plan, plus "returning shares" that may become available from time to time. "Returning shares" are shares that are subject to outstanding awards granted under the 2004 Plan that expire or terminate prior to exercise or settlement, are forfeited because of the failure to vest, are repurchased, or are withheld to satisfy tax withholding or purchase price obligations in connection with such awards. Although the Company no longer grants equity awards under the Prior Plans, all outstanding stock awards granted under the Prior Plans, will continue to be subject to the terms and conditions as set forth in the agreements evidencing such stock awards and the terms of the Prior Plans, as applicable. As of June 30, 2014, 2,563,327 options remain available for future grant under the 2013 Plan.

#### **Stock Options**

Options granted under the 2013 Plan and Prior Plans have terms of ten years from the date of grant and generally vest over a three or four year period.

The exercise price of all options granted was equal to the market value of the Company's common stock on the date of grant.

A summary of stock option activity and related information as of June 30, 2014 is as follows:

	Number of Option Shares	ed Average tise Price	Weighted Average Contractual Life	Aggregate Intrinsic Value
Outstanding at December 31, 2013	3,217,043	\$ 5.06		
Granted	95,000	\$ 5.43		
Exercised	—	\$ 		
Cancelled	(46,576)	\$ 3.18		
Outstanding at June 30, 2014	3,265,467	\$ 5.10	6.33	\$ —
Exercisable at June 30, 2014	2,352,031	\$ 5.98	5.26	\$

No options were exercised during the six months ended June 30, 2014. During the three months ended June 30, 2013 there were 38,085 options exercised, from which gross proceeds of \$92,024 were received. During the six months ended June 30, 2013 there were 79,462 options exercised, from which gross proceeds of \$193,951 were received. The intrinsic value of options exercised during the six months ended June 30, 2013 was \$63,704.

#### **Employee Stock Purchase Plan**

Under the Company's 2007 Employee Stock Purchase Plan, or ESPP, 300,000 shares of common stock were originally reserved for issuance. In addition, the shares reserved automatically increase each year by a number equal to the lesser of: (i) 15,000 shares; (ii) 1% of the outstanding shares of common stock on the last day of the immediately preceding fiscal year; or (iii) such lesser amount as determined by the Board. The ESPP permits full-time employees to purchase common stock through payroll deductions (which cannot exceed 15% of each employee's compensation) at the lower of 85% of fair market value at the beginning of the offering period or the end of each six-month offering period.

For the six months ended June 30, 2014, an aggregate of 17,476 shares were issued under the ESPP, leaving 231,851 shares available for future issuance.

#### **Compensation Expense**

During the three and six months ended June 30, 2014, options to purchase 95,000 shares of common stock were granted. Stock-based compensation expense for stock option awards and ESPP shares are reflected in total operating expenses for each respective year. For the three months ended June 30, 2014 and 2013, stock-based compensation related to stock options and ESPP was \$231,321 and \$363,586, respectively. For the six months ended June 30, 2014 and 2013, stock-based compensation expense related to stock options and the ESPP was \$486,420 and \$521,286, respectively.

The Company uses the Black-Scholes valuation model for determining the estimated fair value and the stock-based compensation for stock-based awards to employees. The following table provides the assumptions used in the Black-Scholes valuation model for the three and six months ended June 30, 2014 and 2013. The ESPP assumptions for the three months ended June 30, 2014 and 2013 are actual amounts, and the assumptions for the six months ended June 30, 2014 and 2013 are weighted average amounts.

	Three Months Ended June 30, 2014	Three Months Ended June 30, 2013	Six Months Ended June 30, 2014	Six Months Ended June 30, 2013
Stock Option assumptions:				
Risk-free interest rate	0.21%	0.80%	0.21%	0.80%
Expected volatility of common stock	63.46%	86.10%	63.46%	86.10%
Dividend yield	0.0%	0.0%	0.0%	0.0%
Expected term (in years)	1.49	5.5	1.49	5.5
ESPP assumptions:				
Risk-free interest rate	0.06%	0.15%	0.06%	0.18%
Expected volatility of common stock	67.6%	91.60%	67.6%	91.44%
Dividend yield	0.0%	0.0%	0.0%	0.0%
Expected term (in years)	0.5	0.5	0.5	0.5

As of June 30, 2014, there was \$1.3 million of unamortized compensation cost related to unvested stock option awards which is expected to be recognized over a remaining weighted-average vesting period of 1.11 years, on a straight-line basis.

#### 6. Stockholders' Equity

## Kissei Stock Purchase

In October 2011, pursuant to a stock purchase agreement by and between the Company and Kissei, Kissei purchased (i) an aggregate of 800,000 shares of the Company's common stock, par value \$0.001 per share, at a price of \$2.50 per share, and (ii) 220,000 shares of the Company's Series B Convertible Preferred Stock, par value \$0.01 per share, at a price of \$25.00 per share. In October 2011 the Company received gross proceeds of \$7.5 million related to this purchase agreement. The purchase agreement contains a standstill agreement from Kissei that terminates if Kissei beneficially owns less than three percent of the Company's outstanding voting stock. Each share of the Series B Preferred Stock is convertible into 10 shares of common stock. The Series B Preferred ranks *pari passu* (on an as-if-converted-to-common-stock basis) with the common stock in liquidation and dividend rights. The holders of the Series B Preferred do not have voting rights, however, the consent of holders of a majority of the outstanding Series B Preferred is required for certain actions.

#### **Common Stock Purchase Agreement**

On August 20, 2012, the Company entered into a common stock purchase agreement with Aspire pursuant to which the Company could elect to sell Aspire, and Aspire would be obligated to purchase, up to an aggregate of \$20 million of common stock over the two-year term of the agreement including \$1.0 million in common stock purchased by Aspire in connection with execution of the agreement. The common stock purchase agreement with Aspire was terminated on October 17, 2013, and as of such date, the Company had completed sales to Aspire totaling 2,504,532 shares of common stock at prices ranging from \$1.60 to \$3.82 per share, generating gross proceeds of \$5.4 million.

#### At-The-Market Issuance Sales Agreements

On April 17, 2013, the Company entered into an at-the-market equity distribution agreement with Macquarie Capital (USA) Inc., or MCUSA, pursuant to which the Company could sell common stock through MCUSA from time to time up to an aggregate offering price of \$6.0 million. As of July 25, 2013, the Company had completed all available sales to MCUSA under this agreement, generating gross and net proceeds of \$6.0 million and \$5.5 million, respectively, on sales of 1,936,237 shares of common stock at prices ranging from \$2.44 to \$4.10 per share.

On October 16, 2013, the Company entered into a second at-the-market equity distribution agreement with MCUSA pursuant to which the Company may sell common stock through MCUSA from time to time up to an aggregate offering price of \$10.0 million. Under the terms of this agreement, unless otherwise mutually agreed, no daily sale of an amount of shares of the Company's common stock is to exceed the lower of \$50,000 or 10% of the lower of the 5-day or 3-month average daily traded value of the Company's common stock on NASDAQ (unless 10% of the lower of the 5-day or 3-month average daily traded value of the Company's common stock on the JASDAQ Market of the Tokyo Stock Exchange ("TSE") is greater, in which case the value from the TSE will be used) as of the date of the applicable issuance notice. The price per share is not to be less than the greater of \$1.29 or the last available closing price of a share of the Company's common stock on NASDAQ. MCUSA agreed to use its commercially reasonable efforts consistent with its customary trading and sales practices and applicable laws, rules and regulations to sell shares of the Company's common stock and is to sell such shares by any method permitted by law deemed to be "at the market." The Company agreed to pay MCUSA an aggregate commission rate of 7.0% of the gross proceeds of any common stock sold under this agreement. MCUSA is under no obligation to purchase shares pursuant to this agreement and there are no assurances that MCUSA will be successful in selling shares. Proceeds from sales of common stock will depend on the number of shares of common stock sold to MCUSA and the per share discretion upon giving five business days written notice. For the six months ended June 30, 2014, the Company has generated gross and net proceeds of \$3.4 million and \$3.0 million, respectively, under this agreement on sales of 1,548,000 shares of the Company's common stock at prices ranging from \$2.01 to \$2.40 per share.

#### Securities Purchase Agreement

On May 9, 2013, the Company entered into a Securities Purchase Agreement with certain accredited investors (the "Purchase Agreement") pursuant to which the Company agreed to sell to the investors 1,158,730 shares of the Company's common stock at a price of \$3.15 per share and warrants to purchase an aggregate of 869,047 shares of the Company's common stock with an exercise price of \$3.15 per share (the "Private Placement"). The Private Placement closed on May 14, 2013. The warrants will expire on May 9, 2018 and may be exercised for cash or, if the current market price of common stock of the Company is greater than the per share exercise price, by surrender of a portion of the warrant in a cashless exercise. The aggregate purchase price for the shares and the warrants sold in the Private Placement was \$3.7 million and associated expenses incurred were \$0.3 million.

In connection with the purchase by one investor of 158,730 shares of common stock and a warrant to purchase 119,047 shares of common stock, on May 29, 2013 the investor provided \$51,389 additional consideration for the shares and the warrant, and the Company entered into an amendment to the warrant with the investor to reflect an exercise price of \$3.38 per share.

The net proceeds for the shares and the warrants sold in the Private Placement of \$3.4 million were allocated based on the relative fair value of each instrument. The fair value of the shares was based on the closing price of the Company's common stock on May 9, 2013, and the fair value of the warrants based on a Black-Scholes valuation model.

#### **Common Stock Warrant**

In 2011, the Company consummated a firm-commitment underwritten public offering of 2,800,666 units at a price to the public of \$3.00 per unit for gross proceeds of \$8.25 million. Each unit consists of one share of common stock and a warrant to purchase one share of common stock. The shares of common stock and warrants are immediately separable and were issued separately. The warrants are exercisable immediately upon issuance, have a five-year term and an exercise price of \$3.56 per share. During the six months ended June 30, 2014, 85,500 of these warrants were exercised for gross proceeds of \$0.3 million. As of June 30, 2014, 2,593,500 of these warrants remain outstanding and exercisable.

In August 2012, the Company issued a warrant in exchange for investor relations services to purchase up to 130,000 of common stock of the Company at a price of \$1.88 per share, the closing price of the Company's common stock on that date. As of June 30, 2014, the warrant was exercisable for 15,000 shares, and no further shares will vest. The warrant expires five years from the date of issuance.

#### 7. Net Loss Per Share

The Company computes basic net loss per share using the weighted average number of common shares outstanding during the period. Diluted net income per share is based upon the weighted average number of common shares and potentially dilutive securities (common share equivalents) outstanding during the period. Common share equivalents outstanding, determined using the treasury stock method, are comprised of shares that may be issued under the Company's stock option agreements and warrants. Common share equivalents are excluded from the diluted net loss per share calculation because of their anti-dilutive effect.

Potentially dilutive outstanding securities excluded from diluted net loss per common share because of their anti-dilutive effect:

	June	June 30,	
	2014	2013	
Convertible preferred stock, as converted	2,200,000	2,200,000	
Stock options	3,265,467	3,329,794	
Warrants	3,675,567	3,876,067	
Total	9,141,034	9,405,861	

#### 8. Related Party Transactions

On October 13, 2011, the Company entered into a services agreement with Kissei to perform two separate studies relating to MN-221 in exchange for \$2.5 million paid to the Company in October 2011. The Company is responsible for all costs to be incurred in the performance of these studies. The amount received from Kissei, net of the amount recorded as revenue through June 30, 2014, is included on the balance sheet at June 30, 2014 as deferred revenue and will be recognized as revenue in future periods as the Company performs the remaining services.

On May 9, 2013, the Company entered into a securities purchase agreement with certain accredited investors pursuant to which the Company agreed to sell to the investors 1,158,730 shares of common stock and warrants to purchase an aggregate of 869,047 shares of common stock (the "Private Placement"). The Private Placement closed on May 14, 2013. The Private Placement included issuance of shares of common stock and a warrant to purchase shares of common stock to Fountain Erika LLC ("Fountain Erika"), an entity of which Tatsuo Izumi, a member of the Company's board of directors at that time, is a principal. The warrant was subsequently amended on May 29, 2013. Fountain Erika's acquisition of the shares of common stock and a warrant to purchase shares of the Company's common stock was at an "at the market" price.

#### 9. Subsequent Events

The Company has evaluated all subsequent events that have occurred after the date of the accompanying financial statements and determined that there were no events or transactions occurring during the subsequent event reporting period which require recognition or disclosure in the Company's consolidated financial statements.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited consolidated financial statements and notes thereto included in this Quarterly Report on Form 10-Q and the audited financial statements and notes thereto as of and for the year ended December 31, 2013 included in our Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC, on March 27, 2014. Past operating results are not necessarily indicative of results that may occur in future periods.

This Quarterly Report on Form 10-Q contains forward-looking statements that are subject to risks and uncertainties, many of which are beyond our control. Our actual results may differ from those anticipated in these forward-looking statements as a result of various factors, including those set forth in Part II of this Quarterly Report on Form 10-Q under the caption "Item 1A. Risk Factors" and under the caption "Item 1A. Risk Factors" in our Annual Report on Form 10-K. The differences may be material. Forward-looking statements discuss matters that are not historical facts. Forward-looking statements include, but are not limited to, statements regarding our plans, strategies, objectives, product development programs, clinical trials, industry, financial condition, liquidity and capital resources, future performance and other statements that are not historical facts. Such forward-looking statements include statements preceded by, followed by or that otherwise include the words "may," "might," "will," "intend," "should," "could," "con," "would," "expect," "believe," "estimate," "anticipate," "predict," "potential," "plan" or similar words. For such statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. You should not rely unduly on these forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law.

#### Overview

We are a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of serious diseases with unmet medical needs and a commercial focus on the U.S. market. We are focused on developing novel, small molecule therapeutics for the treatment of serious diseases with unmet medical needs and a commercial focus on the U.S. market. We are currently focusing our development activities on MN-166 (Ibudilast) for the treatment of neurological disorders, MN-221 (Bedoradrine), for the treatment of acute exacerbations of asthma, MN-001 (Tipelukast) for the treatment of NASH (nonalcoholic steatohepatitis), and MN-029 (Denibulin) for the treatment of solid tumors. We were incorporated in Delaware in September 2000.

We have incurred significant net losses since our inception. As of June 30, 2014, we had an accumulated deficit of \$305.9 million and expect to incur substantial net losses for the next several years as we continue to develop certain of our existing product development programs, and over the long-term if we expand our research and development programs and acquire or in-license products, technologies or businesses that are complementary to our own.

Our goal is to build a sustainable biopharmaceutical business through the successful development of differentiated products for the treatment of serious diseases with unmet medical needs in high-value therapeutic areas. Key elements of our strategy are as follows:

Pursue the development of MN-166 for multiple potential indications primarily through non-dilutive financings.

We intend to advance our diverse MN-166 (ibudilast) program through a combination of investigator sponsored trials and trials funded through government grants or private and public grants. In addition to providing drug supply and safety regulatory support, we are funding portions of the consortium sponsored trials. For example, we have increased our financial participation in the Secondary and Primary Progressive Ibudilast NeuroNEXT Trial in Multiple Sclerosis (SPRINT-MS) Phase 2 clinical trial of MN-166 for the treatment of progressive MS. We intend to enter into additional strategic alliances to support further clinical development of MN-166.

 Strategically partner with one or more leading pharmaceutical companies to complete late stage product development and successfully commercialize our products.

We develop and maintain relationships with pharmaceutical therapeutic area leaders. Upon completion of proof-of-concept Phase 2 clinical trials, we intend to enter into strategic alliances with leading pharmaceutical companies who seek late stage product candidates, such as MN-166, MN-221, MN-001 and MN-029, to support further clinical development and product commercialization.

We entered into an agreement to form a joint venture company with Zhejiang Medicine Co., Ltd. and Beijing Medfron Technologies Co., Ltd. (formerly Beijing Make-Friend Medicine Technology Co., Ltd.) effective September 27, 2011. The joint venture agreement provides for the joint venture company, Zhejiang Sunmy Bio-Medical Co., Ltd. ("Zhejiang Sunmy"), to develop and commercialize MN-221 in China and search for additional compounds to develop. A sublicense would be required under which Zhejiang Sunmy would license MN-221 from us. In accordance with the joint venture agreement, in March 2012 we paid \$680,000 for our 30% interest in Zhejiang Sunmy. The other parties to the joint venture agreement provided funding for their combined 70%

interest. In December 2013, the Board of Directors of the JV Company agreed to amend the joint venture agreement to allow for the departure of Zhejiang Medicine Co., Ltd. subject to the approval of the government of the People's Republic of China. Through the date of this filing, the Chinese government has not approved any amendment to the JV Company. Upon approval by the Chinese government, Beijing Medfron Medical Technologies Co., Ltd. and MediciNova will each have a 50% interest in the JV Company. We have not entered into the sublicense of MN-221 with the joint venture company as of the date of this report. There is no assurance the sublicense will be executed and there is no assurance that Zhejiang Sunmy will be able to proceed with the development of MN-221 in China. A. Zhejiang Sunmy is a variable interest entity for which we are not the primary beneficiary as we do not have a majority of the board seats and we do not have power to direct or significantly influence the actions of the entity. We therefore account for the activities of Zhejiang Sunmy under the equity method whereby we absorb any loss or income generated by Zhejiang Sunmy according to our percentage ownership. At June 30, 2014, we reflect a long-term asset on our consolidated balance sheet which represents our investment in Zhejiang Sunmy, net of our portion of any generated loss or income.

Depending on decisions we may make as to further clinical development, we may seek to raise additional capital. We may also pursue potential partnerships and potential acquirers of license rights to our programs in markets outside the U.S.

#### **Revenues and Cost of Revenues**

In October 2011, we entered into an agreement with Kissei to perform research and development services relating to MN-221 in exchange for a nonrefundable upfront payment of \$2.5 million. Under the terms of the agreement, we are responsible for all costs incurred and to be incurred in the performance of these services. Certain of the development services were completed in 2013 and 2012, and the remaining services are expected to be delivered and completed at a future date. We assessed the deliverables in accordance with the authoritative guidance and concluded the existence of one deliverable, which was research and development services. The \$2.5 million was initially recorded as deferred revenue. During the six months ended June 30, 2014 and 2013, we recognized revenues of zero and \$3,257, respectively, as research and development services were delivered. During the three months ended June 30, 2014 and 2013, we did not recognized any revenues.

#### Research, Development and Patent Expenses

Our research, development and patent expenses consist primarily of the license fees related to our product candidates, salaries and related employee benefits, costs associated with the preclinical and clinical development of our product development programs, costs associated with non-clinical activities, such as regulatory expenses, and pre-commercialization manufacturing development activities. We use external service providers to manufacture our compounds to be used in clinical trials and for the majority of the services performed in connection with the preclinical and clinical development of our product candidates. Research, development and patent expenses include fees paid to consultants, contract research organizations, contract manufacturers and other external service providers, including professional fees and costs associated with legal services, patents and patent applications for our intellectual property. Internal research and development expenses include costs of compensation and other expenses for research and development personnel, supplies, facility costs and depreciation. Research, development and patent costs are expensed as incurred.

The following table presents our total research, development, and patent expenses by category during the periods presented (in thousands):

		Months Ended June 30,
External development expense:	2014	2013
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MN-221	\$ 4	\$ 11
MN-166	416	340
MN-001	61	10
MN-029	—	6
Total external development expense	481	367
R&D personnel expense	241	433
R&D facility and depreciation expense	8	12
Patent expenses	87	102
Other R&D expense	19	32
Total research, development and patent expense	\$ 836	\$ 946

		onths Ended une 30,
	2014	2013
External development expense:		
MN-221	\$ 6	\$ 11
MN-166	677	471
MN-001	129	14
MN-029	1	11
Total external development expense	813	507
R&D personnel expense	533	742
R&D facility and depreciation expense	20	29
Patent expenses	167	301
Other R&D expense	51	63
Total research, development and patent expense	\$1,584	\$1,642

#### General and Administrative

Our general and administrative costs primarily consist of salaries, benefits and consulting and professional fees related to our administrative, finance, human resources, business development, legal, information systems support functions, facilities and insurance costs. General and administrative costs are expensed as incurred.

#### **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations is based upon financial statements that have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses, and related disclosures. On an on-going basis, we evaluate these estimates, including those related to, research and development and patent expense, stock-based compensation, and goodwill and purchased intangibles lease related activities, investments, and fixed assets. Estimates are based on historical experience, information received from third parties and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. The items in our financial statements requiring significant estimates and judgments are as follows:

#### **Research, Development and Patent Expenses**

Research, development and patent costs are expensed as incurred based on certain contractual factors such as estimates of work performed, milestones achieved, patient enrollment and experience with similar contracts. As actual costs become known, accruals are adjusted. To date, our accrued research, development and patent expenses have not differed significantly from the actual expenses incurred.

## Stock-Based Compensation

We grant options to purchase our common stock to our employees and directors under our 2013 Stock Incentive Plan. Additionally, we have outstanding stock options that were granted under our Amended and Restated 2004 Stock Incentive Plan and 2000 General Stock Incentive Plan. Under our 2007 Employee Stock Purchase Plan, full-time employees are permitted to purchase common stock through payroll deduction at the lower of 85% of fair market value at the beginning of the offering period or the end of each six-month offering period. The benefits provided under all of these plans requires stock-based compensation for an award of equity instruments, including stock options and employee stock purchase rights issued to employees to be recognized as a cost in the consolidated financial statements. The cost of these awards is measured according to the grant date fair value of the stock award and is recognized on a straight-line basis over the period during which an employee is required to provide service in exchange for the award, which is usually the vesting period. We occasionally issue employee performance-based stock options, the vesting of which is based on a determination made by our board of directors as to the achievement of certain corporate objectives. The grant date of such awards is the date on which our board of directors makes its determination. For periods preceding the grant date, the cost of these awards is measured according to their fair value at each reporting date. In the absence of an observable market price for the stock award, the grant date fair value of the award, whe expected term of the award, the current price of the underlying shares, the expected volatility of the underlying share price, the expected dividends on the underlying shares and the risk-free interest rate.

Valuation of our stock option grants requires us to estimate certain variables, such as estimated volatility and expected life. If any of our estimations change, such changes could have a significant impact on the stock-based compensation amount we recognize.

#### Goodwill and Purchased Intangibles

Goodwill is recorded when the consideration paid for an acquisition exceeds the fair value of the identified net tangible and intangible assets of acquired businesses. The allocation of purchase price for acquisitions require extensive use of accounting estimates and judgments to allocate the purchase price to the identifiable tangible and intangible assets acquired and liabilities assumed based on their respective fair values. Additionally, we must determine whether an acquired entity is considered to be a business or a set of net assets as a portion of the purchase price can only be allocated to goodwill in a business combination. Goodwill and intangible assets deemed to have indefinite lives are not amortized, but are subject to annual impairment tests. The amounts and useful lives assigned to intangible assets that have finite useful lives require the use of estimates and the exercise of judgment. These judgments can significantly affect our net operating results. Goodwill and in-process research and development, or IPR&D, was \$9.6 million and \$4.8 million, respectively, as of June 30, 2014.

At least annually in the fourth quarter, or more frequently if indicators of impairment exist, we complete an impairment test for goodwill and purchased indefinite life intangibles. We periodically re-evaluate the original assumptions and rationale utilized in the establishment of the carrying value and estimated lives of our long-lived assets. The criteria used for these evaluations include management's estimate of the asset's continuing ability to generate income from operations and positive cash flows in future periods as well as the strategic significance of any intangible assets in our business objectives. If assets are considered to be impaired, the impairment recognized is the amount by which the carrying value of the assets exceeds the fair value of the assets.

#### **Results of Operations**

#### Comparison of the three months ended June 30, 2014 and 2013

#### Research, Development and Patent Expenses

Research, development and patent expenses were \$0.8 million and \$0.9 million for the three month periods ended June 30, 2014 and 2013, respectively.

#### General and Administrative

General and administrative expenses for the three months ended June 30, 2014 were \$1.3 million, a decrease of \$0.5 million when compared to \$1.8 million for the three months ended June 30, 2013. This decrease in general and administrative expenses was due primarily to decreased professional fees and ongoing cost containment efforts.

#### Comparison of the six months ended June 30, 2014 and 2013

#### Research, Development and Patent Expenses

Research, development and patent expenses were \$1.6 million for both the six month periods ended June 30, 2014 and 2013.

#### General and Administrative

General and administrative expenses for the six months ended June 30, 2014 were \$2.9 million, a decrease of \$0.7 million when compared to \$3.6 million for the six months ended June 30, 2013. This decrease in general and administrative expenses was due primarily to decreased professional fees and ongoing cost containment efforts.

#### Liquidity and Capital Resources

Net cash provided by operating activities during the six months ended June 30, 2014 was \$3.4 million compared to \$4.7 million of net cash used in operating activities during the same period in 2013. The \$8.1 million change is primarily related to the \$6.0 million accounts receivable collected during 2014 related to the Genzyme milestone revenue earned from the fourth quarter of 2013, amortization of expenses that were prepaid as of December 31, 2013 and incurred during the six months ended June 30, 2014 along with ongoing cost containment efforts.

Net cash provided by financing activities during the six months ended June 30, 2014 was \$3.4 million compared to \$12.8 million during the same period in 2013. The decrease in cash provided by financing activities was due to sale of fewer shares of common stock in 2014 as compared to 2013.

On August 20, 2012, we entered into a common stock purchase agreement with Aspire, pursuant to which we could sell our common stock to Aspire from time to time up to an aggregate of \$20 million of our common stock over the two-year term of the agreement including \$1 million in common stock purchased by Aspire in connection with execution of the agreement. No more than 3,231,096 shares of our common stock could be issued under this agreement, including 363,636 shares initially issued to Aspire in consideration of entering into the agreement. We could on any business day over the term of the agreement direct Aspire to purchase up to 50,000 shares, to a maximum of \$500,000 per business day with a purchase price of the lower of the lowest sale price of our common stock on the date of the sale, or the average of the three lowest closing stock prices during the 12 consecutive business days ending on the business day immediately preceding the purchase date. In addition, we could on any business day over the term of the agreement direct Aspire to make a volume-weighted average purchase ("VWAP") of stock not to exceed 15% (which limitation may be increased up to 30% by the mutual agreement of the parties) of the aggregate shares of our stock traded on the next business day, the purchase price of which shall be the lower of the closing price on the date of the sale, or 95% of the next business day's NASDAQ volume weighted average price, subject to a minimum market price threshold established by us and certain other exceptions. During the six month period ended June 30, 2013 we generated gross proceeds of \$3.8 million under this agreement. We have made no sales of our common stock to Aspire subsequent to September 30, 2013 and we terminated the common stock purchase agreement with Aspire on October 17, 2013.

During the six month period ended June 30, 2013, 121,666 warrants related to the March 23, 2011 public offering of 2,750,000 units, with each unit consisting of one share of common stock and one warrant, were exercised generating proceeds of \$0.4 million.

During the six month period ended June 30, 2013, 79,462 stock options were exercised from which proceeds of \$0.2 million were received.

On May 9, 2013, we entered into a Securities Purchase Agreement with certain accredited investors pursuant to which we agreed to sell to the investors 1,158,730 shares of our common stock at a price of \$3.15 per share and warrants to purchase an aggregate of 869,047 shares of our common stock with an exercise price of \$3.15 per share (the "Private Placement"). The net proceeds generated from this transaction after underwriting discounts and commissions and offering costs was \$3.4 million.

On April 17, 2013, we entered into an at-the-market equity distribution agreement with Macquarie Capital (USA) Inc., or MCUSA, pursuant to which we could sell our common stock through MCUSA from time to time up to an aggregate offering price of \$6 million. During the six month period ended June 30, 2013 we generated net proceeds of \$4.9 million under this agreement.

On October 16, 2013, we entered into a second at-the-market equity distribution agreement with MCUSA pursuant to which we may sell our common stock through MCUSA from time to time up to an aggregate offering price of \$10 million. Under the terms of this agreement, unless otherwise mutually agreed, no daily sale of an amount of shares of our common stock is to exceed the lower of \$50,000 or 10% of the lower of the 5-day or 3-month average daily traded value of our common stock on NASDAQ (unless 10% of the lower of the 5-day or 3-month average daily traded value of our common stock on NASDAQ (unless 10% of the lower of the 5-day or 3-month average daily traded value of our common stock on the JASDAQ Market of the Tokyo Stock Exchange ("TSE") is greater, in which case the value from the TSE will be used) as of the date of the applicable issuance notice. The price per share is not to be less than the greater of \$1.29 or the last available closing price of a share of common stock on NASDAQ. MCUSA agreed to use its commercially reasonable efforts consistent with its customary trading and sales practices and applicable laws, rules and regulations to sell shares of our common stock and is to sell such shares by any method permitted by law deemed to be "at the market." We agreed to pay MCUSA an aggregate commission rate of 7.0% of the gross proceeds of any common stock sold under this agreement. MCUSA is under no obligation to purchase shares of our common stock sold to MCUSA and the per share purchase price of each transaction. The agreement with MCUSA provides both MCUSA and us the right to terminate the agreement in our sole discretion upon giving five business days written notice. As of June 30, 2014, we have generated gross and net proceeds of \$3.6 million and \$3.3 million, respectively, under this agreement on sales of 1,665,500 shares of our common stock at prices ranging from \$2.01 to \$2.58 per share.

As of June 30, 2014, we had available cash and cash equivalents of \$13.5 million and working capital of \$13.3 million. As of the date of this report, we believe we have working capital sufficient to fund operations through at least June 30, 2015. However, we cannot guarantee that these capital resources will be sufficient to conduct all of our research and development programs as planned. We are pursuing other opportunities to raise capital through the sale of our common stock or through other strategic initiatives. There can be no assurances that there will be adequate financing available to us on acceptable terms, or at all. If we are unable to obtain additional financing, we may have to sell one or more of our programs or cease operations.

## **Off-Balance Sheet Arrangements**

At June 30, 2014, we did not have any relationship with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance variable interest, or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements. In addition, we did not engage in trading activities involving non-exchange traded contracts. As a result, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such relationships. We do not have relationships and transactions with persons and entities that derive benefits from their non-independent relationship with us or our related parties except as disclosed herein.

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

Our primary exposure to market risk due to changes in interest rates relates primarily to the increase or decrease in the amount of interest income we can earn on our investment portfolio. The primary objective of our investment activities is to preserve principal. Our risk associated with fluctuating interest rates is limited to our investments in interest rate sensitive financial instruments and we do not use interest rate derivative instruments to manage exposure to interest rate changes. We mitigate default risk by investing in investment grade securities. A hypothetical 100 basis point adverse move in interest rates along the entire interest rate yield curve would not materially affect the fair value of our interest sensitive financial instruments due to their relatively short term nature.

Cash and cash equivalents as of June 30, 2014 were \$13.5 million and were primarily invested in money market interest bearing accounts and money market funds. A hypothetical 10% adverse change in the average interest rate on our cash and cash equivalents would have had no material effect on net loss for the three and six months ended June 30, 2014.

## ITEM 4. CONTROLS AND PROCEDURES.

We maintain disclosure controls and procedures that are designed to provide reasonable assurance that the information required to be disclosed in our filings under the Securities Exchange Act of 1934, as amended, or the Exchange Act, is (1) recorded, processed, summarized and reported within the time periods specified in SEC's rules and forms, and (2) accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our procedures or our internal controls will prevent or detect all errors and all fraud. Any internal control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of our controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected.

## **Evaluation of Disclosure Controls and Procedures**

As required by Rule 13a-15(b) of the Exchange Act, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the quarter covered by this report. Based on the foregoing, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

## Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during our most recent fiscal quarter 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 not involved in any material legal proceedings as of June 30, 2014. We may become involved in various disputes and legal proceedings which arise in the ordinary course of business or otherwise. While it is not possible to accurately predict or determine the outcome of these matters, an adverse result in any litigation matter may occur which could harm our business.

#### ITEM 1A. RISK FACTORS.

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2013, which are incorporated herein by reference and which could materially affect our business, financial condition or future results. The risks described in our Annual Report on Form 10-K are not the only risks facing our Company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results. There have been no material changes from the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2013.

## ITEM 6. EXHIBITS.

Exhibit Number	Description
10.1	Engagement Agreement, effective April 8, 2014, by and between MediciNova, Inc. and van den Boom & Associates, LLC (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed April 9, 2014).
10.2	Severance Protection Agreement, dated July 14, 2014, by and between MediciNova, Inc. and Dr. Yuichi Iwaki.
10.3	Severance Protection Agreement, dated July 14, 2014, by and between MediciNova, Inc. and Masatsune Okajima.
10.4	Severance Protection Agreement, dated July 14, 2014, by and between MediciNova, Inc. and Dr. Kazuko Matsuda.
10.5	Severance Protection Agreement, dated July 14, 2014, by and between MediciNova, Inc. and Geoffrey O'Brien.
31.1	Certification of the Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350 (Section 906 of the Sarbanes-Oxley Act of 2002).
32.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350 (Section 906 of the Sarbanes-Oxley Act of 2002).
101	The following financial statements from the MediciNova, Inc. Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 formatted in Extensible Business Reporting Language (XBRL): (i) Consolidated Balance Sheets; (ii) Consolidated Statements of Operations and Comprehensive Loss; (iii) Consolidated Statements of Cash Flows; and (iv) the notes to the consolidated financial statements.

Date: August 13, 2014

## SIGNATURES

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

MEDICINOVA, INC.

By:	/s/ Yuichi Iwaki
	Yuichi Iwaki, M.D., Ph.D. President and Chief Executive Officer (on behalf of the registrant and as the registrant's Principal Executive Officer)
By:	/s/ Esther van den Boom
-	Esther van den Boom Chief Financial Officer (on behalf of the registrant and as the registrant's Principal Financial Officer)

Exhibit Number

## INDEX TO EXHIBITS

Description
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#### SEVERANCE PROTECTION AGREEMENT

SEVERANCE PROTECTION AGREEMENT, dated July 14, 2014, by and between MediciNova, Inc., a Delaware corporation (the "**Company**"), and Dr. Yuichi Iwaki (the "**Executive**").

#### PURPOSE

The Board of Directors of the Company (the "**Board**") recognizes that the possibility of a Change in Control (as hereinafter defined) of the Company exists and that the threat or occurrence of a Change in Control may result in the distraction of its key management personnel because of the uncertainties inherent in such a situation.

The Board has determined that it is essential and in the best interests of the Company and its stockholders to retain the services of the Executive in the event of the threat or occurrence of a Change in Control and to ensure the Executive's continued dedication and efforts in such event without undue concern for the Executive's personal financial and employment security.

In order to induce the Executive to remain in the employ of the Company, particularly in the event of the threat or occurrence of a Change in Control, the Company desires to enter into this Agreement to provide the Executive with certain benefits in the event the Executive's employment is terminated as a result of, or in connection with, a Change in Control.

NOW, THEREFORE, in consideration of the respective agreements of the parties contained herein, it is agreed as follows:

#### **SECTION 1.** Definitions.

For purposes of this Agreement, the following terms have the meanings set forth below:

"Accrued Compensation" means an amount which includes all amounts earned or accrued by the Executive through and including the Termination Date but not paid to the Executive on or prior to such date, including (a) all base salary, (b) reimbursement for all reasonable and necessary expenses incurred by the Executive on behalf of the Company during the period ending on the Termination Date, (c) all vacation pay and (d) all bonuses and incentive compensation (other than the Pro Rata Bonus).

"Base Salary Amount" means the greater of the Executive's annual base salary (a) at the rate in effect on the Termination Date and (b) at the highest rate in effect at any time during the 180-day period prior to a Change in Control, and will include all amounts of the Executive's base salary that are deferred under any qualified or non-qualified employee benefit plan of the Company or any other agreement or arrangement.

*"Beneficial Owner"* has the meaning as used in Rule 13d-3 promulgated under the Securities Exchange Act. The terms "Beneficially Owned" and "Beneficial Ownership" each have a correlative meaning.

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

"Bonus Amount" means the greatest of (a) the annual bonus paid or payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of the fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs, (b) the average of the annual bonus paid or payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of each of the three fiscal years ending immediately prior to the fiscal year in which the Termination Date occurs (or, if higher, ending in respect of each of the three fiscal years ending immediately prior to the fiscal year in which the Change in Control occurs) or (c) in the event that the Executive was not employed by the Company for the entire fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs, the annual target bonus established and payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of the fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs. Bonus Amount includes only the short-term incentive portion of the annual bonus and does not include restricted stock awards, options or other long-term incentive compensation awarded to the Executive.

*"Cause"* for the termination of the Executive's employment with the Company will be deemed to exist if (a) the Executive has been convicted for committing an act of fraud, embezzlement, theft or other act constituting a

felony (other than traffic related offenses or as a result of vicarious liability), (b) the Executive willfully engages in illegal conduct or gross misconduct that is significantly injurious to the Company; however, no act or failure to act on the Executive's part shall be considered "willful" unless done or omitted to be done by the Executive not in good faith and without reasonable belief that his or her action or omission was in the best interest of the Company or (c) failure to perform his or her duties in a reasonably satisfactory manner after the receipt of a notice from the Company detailing such failure if the failure is incapable of cure, and if the failure is capable of cure, upon the failure to cure such failure within 30 days of such notice or upon its recurrence.

"Change in Control" of the Company means, and shall be deemed to have occurred upon, any of the following events:

(a) The acquisition by any Person of beneficial ownership (as defined in Rule 13d-3 of the General Rules and Regulations under the Securities Exchange Act) of forty percent (40%) or more of the outstanding voting securities; provided, however, that the following acquisitions shall not constitute a Change in Control for purposes of this subparagraph (a): (A) any acquisition directly from the Company; (B) any acquisition by the Company or any of its Subsidiaries; (C) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Subsidiaries; or (D) any acquisition by any corporation pursuant to a transaction which complies with clauses (i), (ii) and (iii) of subparagraph (c) below; or

(b) Individuals who, as of January1, 2014, constitute the Board (the "**Incumbent Board**") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual who becomes a director of the Company subsequent to January 1, 2014, and whose election, or whose nomination for election by the Company's stockholders, to the Board was either (i) approved by a vote of at least a majority of the directors then comprising the Incumbent Board or (ii) recommended by a nominating committee comprised entirely of directors who are then Incumbent Board members shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest (as such terms are used in Rule 14a-11 of Regulation 14A promulgated under the Securities Exchange Act), other actual or threatened solicitation of proxies or consents or an actual or threatened tender offer; or

(c) Consummation of a reorganization, merger, or consolidation or sale or other disposition of all or substantially all of the assets of the Company (a "Business Combination"), in each case unless following such Business Combination, (i) all or substantially all of the Persons who were the Beneficial Owners, respectively, of the outstanding shares and outstanding voting securities immediately prior to such Business Combination own, directly or indirectly, more than fifty percent (50%) of the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors of the Company, as the case may be, of the entity resulting from the Business Combination (including, without limitation, an entity which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the outstanding voting securities (provided, however, that for purposes of this clause (i) any shares of common stock or voting securities of such resulting entity received by such Beneficial Owners in such Business Combination other than as the result of such Beneficial Owners' ownership of outstanding shares or outstanding voting securities immediately prior to such Business Combination shall not be considered to be owned by such Beneficial Owners for the purposes of calculating their percentage of ownership of the outstanding common stock and voting power of the resulting entity); (ii) no Person (excluding any entity resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such entity resulting from the Business Combination) beneficially owns, directly or indirectly, forty percent (40%) or more of the combined voting power of the then outstanding voting securities of such entity resulting from the Business Combination unless such Person owned forty percent (40%) or more of the outstanding shares or outstanding voting securities immediately prior to the Business Combination; and (iii) at least a majority of the members of the Board of the entity resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or the action of the Board, providing for such Business Combination; or

(d) Approval by the Company's stockholders of a complete liquidation or dissolution of the Company.

For purposes of clause (c), any Person who acquires outstanding voting securities of the entity resulting from the Business Combination by virtue of ownership, prior to such Business Combination, of outstanding voting securities of both the Company and the entity or entities with which the Company is combined shall be treated as two Persons after the Business Combination, who shall be treated as owning outstanding voting securities of the entity resulting from the Business Combination by virtue of ownership, prior to such Business Combination of, respectively, outstanding voting securities of the Company, and of the entity or entities with which the Company is combined.

"Code" means the Internal Revenue Code of 1986, as amended.

"COBRA" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

*"Company"* means MEDICINOVA, INC., a Delaware corporation, provided that in recognition of the fact that the Executive may be employed by a direct or indirect Subsidiary of MEDICINOVA, INC., the term "Company" when referring to the employment relationship and the compensation or benefits related thereto shall include the employer of Executive as the context requires.

"Continuation Period" has the meaning set forth in Section 3.1(b)(iii).

*"Disability"* means the status of disability determined conclusively by the Company based upon certification of disability by the Social Security Administration or upon such other proof as the Company may reasonably require, effective upon receipt of such certification or other proof by the Company.

*"Full Release"* means a written release, timely executed so that it is fully effective no later than 60 days following the Executive's Termination Date, in a form satisfactory to the Company and counsel pursuant to which the Executive fully and completely releases the Company from any and all claims that the Executive may have against the Company or its affiliates (other than any claims that may or have arisen under this Agreement).

"Good Reason" means the occurrence of any of the events or conditions described in clauses (a) through (e) hereof, without the Executive's prior written consent:

(a)(i) any material adverse change in the Executive's status, position or responsibilities (including reporting responsibilities) from the Executive's status, position or responsibilities as in effect at any time within 180 days preceding the date of the Change in Control or at any time thereafter, or (ii) any assignment to the Executive of duties or responsibilities which are materially and adversely inconsistent with the Executive's status, position or responsibilities as in effect at any time within 180 days preceding the date of the Change in Control or at any time thereafter, in each case except in connection with the termination of the Executive's employment for Disability, Cause, as a result of the Executive's death or by the Executive other than for Good Reason;

(b) a material reduction in Executive's base salary;

(c) the imposition of a requirement that the Executive be based at any place outside a 50-mile radius from the Executive's principal place of employment immediately prior to the Change in Control, except for reasonably required travel on Company business which is not materially greater in frequency or duration than prior to the Change in Control;

(d) any material breach by the Company of any provision of this Agreement or any other agreement to which the Company and the Executive are parties; or

(e) the failure of the Company to obtain, as contemplated in Section 7, an agreement, reasonably satisfactory to the Executive, from any Successor to assume and agree to perform this Agreement.

Notwithstanding anything to the contrary in this Agreement, no termination will be deemed to be for Good Reason hereunder if it is remedied by the Company within 30 days after receipt of notice thereof given by the Executive.

"Notice of Termination" means a written notice from the Company or the Executive of the termination of the Executive's employment which indicates the specific termination provision in this Agreement relied upon and which sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated. Any such notice given by Executive of a termination for Good Reason shall be given within 90 days of the occurrence giving rise to such termination for Good Reason.

*"Person"* has the meaning as defined in Section 3(a)(9) of the Securities Exchange Act and used in Section 13(d) or 14(d) of the Securities Exchange Act, and will include any "group" as such term is used in such sections.

*"Pro Rata Bonus"* means an amount equal to the Bonus Amount multiplied by a fraction, the numerator of which is the number of days elapsed in the then fiscal year through and including the Termination Date and the denominator of which is 365.

"Securities Exchange Act" means the Securities Exchange Act of 1934, as amended.

*"Subsidiary"* means any corporation with respect to which another specified corporation has the power under ordinary circumstances to vote or direct the voting of sufficient securities to elect a majority of the directors.

*"Successor"* means a corporation or other entity acquiring all or substantially all the assets and business of the Company, whether by operation of law, by assignment or otherwise.

*"Termination Date"* means (a) in the case of the Executive's death, the Executive's date of death, (b) in the case of the termination of the Executive's employment with the Company by the Executive for Good Reason, five days after the date the Notice of Termination is received by the Company, and (c) in all other cases, the date specified in the Notice of Termination; provided that if the Executive's employment is terminated by the Company for Cause or due to Disability, the date specified in the Notice of Termination will be at least 30 days after the date the Notice of Termination is given to the Executive.

#### **SECTION 2.** Term of Agreement.

The term of this Agreement (the "**Term**") will commence on the date of this Agreement, and will continue in effect until December 31, 2014; provided that on December 31, 2014 and each anniversary of such date thereafter, the Term shall automatically be extended for one additional year unless, not later than October 1 immediately preceding such automatic extension, the Company or the Executive shall have given notice not to extend the Term; and further provided that in the event a Change in Control occurs during the Term, the Term will be extended to the date 24 months after the date of the occurrence of such Change in Control.

Notwithstanding the foregoing and subject to Section 3.2, the Term shall be deemed to have immediately expired without any further action and this Agreement will immediately terminate and be of no further effect if any of the following events occurs prior to a Change in Control:

(a) the Executive's employment with the Company is terminated (whether by the Company or the Executive) for any reason;

(b) the Executive's employment is not terminated but there is a change in his or her status, position or responsibilities (including reporting responsibilities) from that which applied to Executive on the date of this Agreement; or

(c) the Executive reaches the mandatory retirement age applicable to the Company's executive officers under any stated policy of the Company, as may be adopted and revised from time to time by the Board.

#### **SECTION 3.** Termination of Employment.

3.1 If, during the Term, the Executive's employment with the Company is terminated within 12 months following a Change in Control, the Executive will be entitled to the following compensation and benefits:

(a) If Executive's employment with the Company is terminated (i) by the Company for Cause or Disability, (ii) by reason of the Executive's death or (iii) by the Executive other than for Good Reason, the Company will pay to the Executive the Accrued Compensation and, if such termination is other than by the Company for Cause, a Pro Rata Bonus, such amount will be paid in a single lump sum cash payment by the Company to the Executive within five days after the Termination Date.

(b) If the Executive's employment with the Company is terminated (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), the Executive will be entitled to the following:

(i) the Company will pay the Executive all Accrued Compensation and a Pro Rata Bonus, such amounts will be paid in a single lump sum cash payment by the Company to the Executive within five days after the Termination Date;

(ii) subject to Section 18, if applicable, and subject to the Executive providing the Company with (and not revoking) a Full Release (taking into account any applicable period for revocation), the Company will pay the Executive as severance pay, and in lieu of any further compensation for periods subsequent to the Termination Date, in a single payment an amount in cash equal to:

(i) two (2) times the sum of (A) the Base Salary Amount and (B) the Bonus Amount, plus

(ii) the estimated premium cost to the Company of the provision of continued life insurance and disability benefits for the Executive for 18 months following the Termination Date, as determined by the Company in its sole discretion,

which amount will be paid in a single lump sum cash payment by the Company to the Executive on the 60th day following the Termination Date;

(iii) subject to Section 18, if applicable, and subject to the Executive providing the Company with (and not revoking) a Full Release (taking into account any applicable period for revocation), and complying with his or her obligations under Section 6, the Company will pay the cost of medical, dental and vision continuation coverage under COBRA for the Executive and any eligible dependents that were covered under the Company's health care plans immediately prior to the Termination Date, for a period of up to 18 months following the Termination Date (the "**Continuation Period**"), subject to the Executive's timely election and continuation of such coverage (the "**COBRA Benefit**"). Notwithstanding the foregoing, if the Company determines, in its sole discretion, that it cannot provide the COBRA Benefit without a substantial risk of violating applicable law (including the Patient Protection and Affordable Care Act), the Company instead shall pay to the Executive, on the first day of each calendar month, a fully taxable cash payment equal to the applicable COBRA premiums for that month (including premiums for the Executive and the Executive's eligible dependents who have elected and remain enrolled in such COBRA coverage), subject to applicable tax withholdings (such amount, the "**Special Cash Payment**"), for the remainder of the Continuation Period. Executive may, but is not obligated to, use such Special Cash Payments toward the cost of COBRA premiums. This Section 3.1(b)(iii) will not be interpreted so as to limit any benefits to which the Executive or the Executive's dependents or beneficiaries may be entitled under any of the Company's employee benefit plans, programs or practices following the Executive's termination of employment;

(iv) the Company shall provide the Executive with reasonable outplacement services suitable to the Executive's position for a period of 12 months or, if earlier, until the first acceptance by the Executive of an offer of employment; and

(v) such other acceleration of vesting and other benefits provided in other Company plans or agreements regarding options to purchase Company stock, restricted stock, deferral of stock or other equity compensation awards granted to or otherwise applicable to Executive.

(c) To the extent necessary to comply with Code Section 409A, any such payment, reimbursements or in-kind benefits to be paid or provided to the Executive under Section 3.1(b)(iii) and/or Section 3.1(b)(iv), shall be paid or provided as soon as practical following submission by the Executive of a reimbursement request but no later than the end of the calendar year following the calendar year in which such cost is incurred and no benefit will be paid or provided if the Executive incurs such cost after the end of the second calendar year following the calendar year in which the Termination Date occurs.

(d) The Executive will not be required to mitigate the amount of any payment provided for in this Agreement by seeking other employment or otherwise, and no such payment will be offset or reduced by the amount of any compensation or benefits provided to the Executive in any subsequent employment, except as specifically provided in Section 3.1(b)(iii) and 3.1(b)(iv).

3.2 Notwithstanding anything in this Agreement to the contrary, if, within the 30 days immediately preceding a Change in Control, (i) the Executive's employment is terminated (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), or (ii) (A) there is a material adverse change in the Executive's status, position or responsibilities (including reporting responsibilities) from that which applied to Executive on the date of this Agreement, and (B) the Executive's employment with the Company is subsequently terminated within 24 months following a Change in Control (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), the Executive shall be entitled to receive the benefits provided in Section 3.1(b).

3.3 Except as otherwise noted herein, the compensation to be paid to the Executive pursuant to Sections 3.1(a), 3.1(b)(i) and 3.1(b)(ii) of this Agreement (whether by reason of Section 3.1(a), Section 3.1(b) or Section 3.2) will be in lieu of any similar severance or termination compensation (i.e., compensation based directly on the Executive's annual salary or annual salary and bonus) to which the Executive may be entitled under any other Company severance or termination agreement, plan, program, policy, practice or arrangement.

#### **SECTION 4.** Notice of Termination.

Following a Change in Control, any purported termination of the Executive's employment by the Company will be communicated by a Notice of Termination to the Executive. For purposes of this Agreement, no such purported termination will be effective without such Notice of Termination.

#### SECTION 5. Excise Tax Adjustments.

5.1 In the event Executive becomes entitled to receive the benefits provided pursuant to Sections 3.1(b) or 3.2 herein, and the Company determines that such benefits (the "**Total Payments**") will be subject to the tax (the "**Excise Tax**") imposed by Section 4999 of the Code, or any similar tax that may hereafter be imposed, the Company shall compute the "**Net After-Tax Amount**," and the "**Reduced Amount**," and shall adjust the Total Payments as described below. The Net After-Tax Amount shall mean the present value of all amounts payable to the Executive hereunder, net of all federal income, excise and employment taxes imposed on the Executive by reason of such payments. The Reduced Amount shall mean the largest aggregate amount of the Total Payments that if paid to the Executive would result in the Executive receiving a Net After-Tax Amount that is equal to or greater than the Net After-Tax Amount that the Executive would have received if the Total Payments had been made. If the Company determines that there is a Reduced Amount, the Total Payments will be reduced to the Reduced Amount. With respect to any such reduction, payments and benefits will be reduced in the following order: first against the latest scheduled cash payments (if necessary, to zero), then against any current cash payments and benefits (other than equity or equity derivative related payments).

5.2 For purposes of determining whether the Total Payments will be subject to the Excise Tax and the amounts of such Excise Tax and for purposes of determining the Reduced Amount and the Net After-Tax Amount:

(a) Any other payments or benefits received or to be received by the Executive in connection with a Change in Control of the Company or the Executive's termination of employment (whether pursuant to the terms of this Agreement or any other plan, arrangement, or agreement with the Company, or with any individual, entity, or group of individuals or entities (individually and collectively referred to in this subsection (a) as "**Persons**") whose actions result in a change in control of the Company or any Person affiliated with the Company or such Persons) shall be treated as "**parachute payments**" within the meaning of Section 280G(b)(2) of the Code, and all "**excess parachute payments**" within the meaning of Section 280G(b)(1) of the Code shall be treated as subject to the Excise Tax, unless in the opinion of a tax advisor selected by the Company and reasonably acceptable to the Executive ("**Tax Counsel**"), such other payments or benefits (in whole or in part) should be treated by the courts as representing reasonable compensation for services actually rendered (within the meaning of Section 280G(b)(4)(B) of the Code), or otherwise not subject to the Excise Tax;

(b) The amount of the Total Payments that shall be treated as subject to the Excise Tax shall be equal to the lesser of (i) the total amount of the Total Payments; or (ii) the amount of excess parachute payments within the meaning of Section 280G(b)(1) of the Code (after applying clause (a) above);

(c) In the event that the Executive disputes any calculation or determination made by the Company, the matter shall be determined by Tax Counsel, the fees and expenses of which shall be borne solely by the Company; and

(d) The Executive shall be deemed to pay federal income taxes at the highest marginal rate of federal income taxation in the calendar year in which the Total Payments are to be made or commenced, as applicable, and state and local income taxes at the highest marginal rate of taxation in the state and locality of the Executive's residence on the effective date of employment, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes, taking into account the reduction in itemized deduction under Section 68 of the Code.

#### SECTION 6. Covenants of the Executive.

During the Continuation Period following any Change in Control pursuant to which the Executive receives the benefits pursuant to Section 3.1(b)(iii), the Executive covenants and agrees as follows:

(a) the Executive agrees to comply with his or her obligations under the any Inventions, Copyright and Confidentiality Agreement that he or she entered into with the Company; and

(b) the Executive acknowledges that the Executive has knowledge of confidential and proprietary information concerning the current salary, benefits, skills, and capabilities of Company employees and that it would be improper for the Executive to use such Company proprietary information in any manner adverse to the Company's interests. The Executive agrees that he or she will not recruit or solicit for employment, directly or indirectly, any employee of the Company during the Continuation Period.

#### SECTION 7. Successors; Binding Agreement.

This Agreement will be binding upon and will inure to the benefit of the Company and its Successors, and the Company will require any Successors to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place. Neither this Agreement nor any right or interest hereunder will be assignable or transferable by the Executive or by the Executive's beneficiaries or legal representatives, except by will or by the laws of descent and distribution. This Agreement will inure to the benefit of and be enforceable by the Executive's legal representatives.

#### **SECTION 8.** Fees and Expenses.

The Company will pay as they become due all legal fees and related expenses (including the costs of experts) incurred by the Executive, in good faith, in (a) contesting or disputing, any such termination of employment and (b) seeking to obtain or enforce any right or benefit provided by this Agreement or by any other plan or arrangement maintained by the Company under which the Executive is or may be entitled to receive benefits. Any such reimbursements under this Section 8 shall be made as soon as practicable following submission of a reimbursement request, but no later than the end of the year following the year during which the underlying expense was incurred. If the dispute is resolved by a final decision of an arbitrator pursuant to Section 15 in the favor of the Company, the Executive shall reimburse the Company for all such legal fees and related expenses (including costs of experts) paid by the Company on behalf of the Executive.

### **SECTION 9.** Notice.

For the purposes of this Agreement, notices and all other communications provided for in the Agreement (including the Notice of Termination) will be in writing and will be deemed to have been duly given when personally delivered or sent by certified mail, return receipt requested, postage prepaid, addressed to the respective addresses last given by each party to the other, provided that all notices to the Company will be directed to the attention of the Board with a copy to the Secretary of the Company. All notices and communications will be deemed to have been received on the date of delivery thereof or on the third business day after the mailing thereof, except that notice of change of address will be effective only upon receipt.

#### **SECTION 10.** Dispute Concerning Termination.

If prior to the Date of Termination (as determined without regard to this Section 10), the party receiving the Notice of Termination notifies the other party that a dispute exists concerning the termination, the Date of Termination shall be extended until the earlier of (i) the date on which the Term ends or (ii) the date on which the dispute is finally resolved, either by mutual written agreement of the parties or by a final judgment, order or decree of an arbitrator or a court of competent jurisdiction (which is not appealable or with respect to which the time for appeal therefrom has expired and no appeal has been perfected); provided, however, that the Date of Termination shall be extended by a notice of dispute given by the Executive only if such notice is given in good faith and the Executive pursues the resolution of such dispute with reasonable diligence.

#### **SECTION 11.** Compensation During Dispute.

If a purported termination occurs following a Change in Control and during the Term and the Date of Termination is extended in accordance with Section 10 hereof, the Company shall continue to pay the Executive the full compensation in effect when the notice giving rise to the dispute was given (including, but not limited to, salary) and continue the Executive as a participant in all compensation, benefit and insurance plans in which the Executive was participating when the Notice of Termination was given, until the Date of Termination, as determined in accordance with Section 10 hereof. Amounts paid under this Section 11 are in addition to all other amounts due under this Agreement and shall not be offset against or reduce any other amounts due under this Agreement or otherwise.

#### SECTION 12. Nonexclusivity of Rights.

Nothing in this Agreement will prevent or limit the Executive's continuing or future participation in any benefit, bonus, incentive or other plan or program provided by the Company for which the Executive may qualify, nor will anything herein limit or reduce such rights as the Executive may have under any other agreements with the Company (except for any severance or termination provision included in any Employment Agreement covering the Executive, which in circumstances under which amounts become payable under Section 3.1(b) hereof shall be deemed superseded completely by this Agreement and of no further force and effect). Amounts which are vested benefits or which the Executive is otherwise entitled to receive under any plan or program of the Company will be payable in accordance with such plan or program, except as specifically modified by this Agreement.

#### SECTION 13. No Set-Off.

The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder will not be affected by any circumstances, including any right of set-off, counterclaim, recoupment, defense or other right which the Company may have against the Executive or others.

#### **SECTION 14.** Miscellaneous.

No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing and signed by the Executive and the Company. No waiver by either party hereto at any time of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party will be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreement or representation, oral or otherwise, express or implied, with respect to the subject matter hereof has been made by either party which is not expressly set forth in this Agreement.

#### **SECTION 15.** Governing Law and Binding Arbitration.

This Agreement will be governed by and construed and enforced in accordance with the laws of the State of Delaware without giving effect to the conflict of laws principles thereof. All disputes relating to this Agreement, including its enforceability, shall be resolved by final and binding arbitration before an arbitrator appointed by the Judicial Arbitration and Mediation Service (**JAMS**), with the arbitration to be held in San Diego, California. Judgment upon the award may be entered in any court having jurisdiction thereof.

#### SECTION 16. Severability.

The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the other provisions hereof.

#### **SECTION 17.** Entire Agreement.

This Agreement constitutes the entire agreement between the parties hereto and supersedes all prior agreements, if any, understandings and arrangements, oral or written, between the parties hereto with respect to severance protection in connection with a Change in Control.

#### SECTION 18. Section 409A.

18.1 Notwithstanding any provision to the contrary in this Agreement, the Company shall delay the commencement of payments or benefits coverage to which the Executive would otherwise become entitled under the Agreement in connection with his or her termination of employment until the earlier of (i) the expiration of the six-month period measured from the date of the Executive's "**separation from service**" with the Company (as such term is defined in Treasury Regulations issued under Section 409A of the Code) or (ii) the date of the Executive's death, if and only if the Company in good faith determines that the Executive is a "**specified employee**" within the meaning of that term under Code Section 409A(a)(2)(B) at the time of such separation from service and that such delayed commencement is otherwise required in order to avoid a prohibited distribution under Section 409A(a)(2) of

the Code. Upon the expiration of the applicable Code Section 409A(a)(2) deferral period, all payments and benefits deferred pursuant to this Section 18 (whether they would have otherwise been payable in a single sum or in installments in the absence of such deferral) shall be paid or reimbursed to the Executive in a lump sum with interest at the prime rate as published in <u>The Wall Street Journal</u> on the first business day following the end of the deferral period, and any remaining payments and benefits due under the Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein.

18.2 The provisions of this Agreement which require commencement of payments or benefits coverage subject to Section 409A upon a termination of employment shall be interpreted to require that the Executive have a "**separation from service**" with the Company (as such term is defined in Treasury Regulations issued under Code Section 409A).

18.3 With regard to any provision herein that provides for the reimbursement of costs and expenses or in-kind benefits, except as permitted by Code Section 409A, (i) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (ii) the amount of expense eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year, <u>provided</u> that the foregoing clause (ii) shall not be violated with regard to expenses reimbursed under any arrangement covered by Section 105(b) of the Code solely because such expenses are subject to a limit related to the period the arrangement is in effect and (iii) such payments shall be paid or provided as soon as practical following submission by the Executive of a reimbursement request but no later than the end of the calendar year following the calendar year in which such expense is incurred.

18.4 For purposes of Code Section 409A, Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. In no event may Executive, directly or indirectly, designate the calendar year of any payment to be made under this Agreement that is considered nonqualified deferred compensation.

18.5 The provisions of this Section 18 are intended to assure that any benefits provided to Executive hereunder shall comply with Code Section 409A and this Agreement shall be interpreted consistent with such section in all respects.

IN WITNESS WHEREOF, the undersigned have executed the above agreement as of the date set forth first above.

MEDICINOVA, INC., A Delaware Corporation

By: /s/ Kazuko Matsuda Name: Kazuko Matsuda

Title: Chief Medical Officer

EXECUTIVE

/s/ Yuichi Iwaki Yuichi Iwaki

#### SEVERANCE PROTECTION AGREEMENT

SEVERANCE PROTECTION AGREEMENT, dated July 14, 2014, by and between MediciNova, Inc., a Delaware corporation (the "**Company**"), and Masatsune Okajima (the "**Executive**").

#### PURPOSE

The Board of Directors of the Company (the "**Board**") recognizes that the possibility of a Change in Control (as hereinafter defined) of the Company exists and that the threat or occurrence of a Change in Control may result in the distraction of its key management personnel because of the uncertainties inherent in such a situation.

The Board has determined that it is essential and in the best interests of the Company and its stockholders to retain the services of the Executive in the event of the threat or occurrence of a Change in Control and to ensure the Executive's continued dedication and efforts in such event without undue concern for the Executive's personal financial and employment security.

In order to induce the Executive to remain in the employ of the Company, particularly in the event of the threat or occurrence of a Change in Control, the Company desires to enter into this Agreement to provide the Executive with certain benefits in the event the Executive's employment is terminated as a result of, or in connection with, a Change in Control.

NOW, THEREFORE, in consideration of the respective agreements of the parties contained herein, it is agreed as follows:

#### **SECTION 1.** Definitions.

For purposes of this Agreement, the following terms have the meanings set forth below:

"Accrued Compensation" means an amount which includes all amounts earned or accrued by the Executive through and including the Termination Date but not paid to the Executive on or prior to such date, including (a) all base salary, (b) reimbursement for all reasonable and necessary expenses incurred by the Executive on behalf of the Company during the period ending on the Termination Date, (c) all vacation pay and (d) all bonuses and incentive compensation (other than the Pro Rata Bonus).

"Base Salary Amount" means the greater of the Executive's annual base salary (a) at the rate in effect on the Termination Date and (b) at the highest rate in effect at any time during the 180-day period prior to a Change in Control, and will include all amounts of the Executive's base salary that are deferred under any qualified or non-qualified employee benefit plan of the Company or any other agreement or arrangement.

*"Beneficial Owner"* has the meaning as used in Rule 13d-3 promulgated under the Securities Exchange Act. The terms "Beneficially Owned" and "Beneficial Ownership" each have a correlative meaning.

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

"Bonus Amount" means the greatest of (a) the annual bonus paid or payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of the fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs, (b) the average of the annual bonus paid or payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of each of the three fiscal years ending immediately prior to the fiscal year in which the Termination Date occurs (or, if higher, ending in respect of each of the three fiscal years ending immediately prior to the fiscal year in which the Change in Control occurs) or (c) in the event that the Executive was not employed by the Company for the entire fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs, the annual target bonus established and payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of the fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs. Bonus Amount includes only the short-term incentive portion of the annual bonus and does not include restricted stock awards, options or other long-term incentive compensation awarded to the Executive.

*"Cause"* for the termination of the Executive's employment with the Company will be deemed to exist if (a) the Executive has been convicted for committing an act of fraud, embezzlement, theft or other act constituting a

felony (other than traffic related offenses or as a result of vicarious liability), (b) the Executive willfully engages in illegal conduct or gross misconduct that is significantly injurious to the Company; however, no act or failure to act on the Executive's part shall be considered "willful" unless done or omitted to be done by the Executive not in good faith and without reasonable belief that his or her action or omission was in the best interest of the Company or (c) failure to perform his or her duties in a reasonably satisfactory manner after the receipt of a notice from the Company detailing such failure if the failure is incapable of cure, and if the failure is capable of cure, upon the failure to cure such failure within 30 days of such notice or upon its recurrence.

"Change in Control" of the Company means, and shall be deemed to have occurred upon, any of the following events:

(a) The acquisition by any Person of beneficial ownership (as defined in Rule 13d-3 of the General Rules and Regulations under the Securities Exchange Act) of forty percent (40%) or more of the outstanding voting securities; provided, however, that the following acquisitions shall not constitute a Change in Control for purposes of this subparagraph (a): (A) any acquisition directly from the Company; (B) any acquisition by the Company or any of its Subsidiaries; (C) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Subsidiaries; or (D) any acquisition by any corporation pursuant to a transaction which complies with clauses (i), (ii) and (iii) of subparagraph (c) below; or

(b) Individuals who, as of January1, 2014, constitute the Board (the "**Incumbent Board**") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual who becomes a director of the Company subsequent to January 1, 2014, and whose election, or whose nomination for election by the Company's stockholders, to the Board was either (i) approved by a vote of at least a majority of the directors then comprising the Incumbent Board or (ii) recommended by a nominating committee comprised entirely of directors who are then Incumbent Board members shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest (as such terms are used in Rule 14a-11 of Regulation 14A promulgated under the Securities Exchange Act), other actual or threatened solicitation of proxies or consents or an actual or threatened tender offer; or

(c) Consummation of a reorganization, merger, or consolidation or sale or other disposition of all or substantially all of the assets of the Company (a "Business Combination"), in each case unless following such Business Combination, (i) all or substantially all of the Persons who were the Beneficial Owners, respectively, of the outstanding shares and outstanding voting securities immediately prior to such Business Combination own, directly or indirectly, more than fifty percent (50%) of the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors of the Company, as the case may be, of the entity resulting from the Business Combination (including, without limitation, an entity which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the outstanding voting securities (provided, however, that for purposes of this clause (i) any shares of common stock or voting securities of such resulting entity received by such Beneficial Owners in such Business Combination other than as the result of such Beneficial Owners' ownership of outstanding shares or outstanding voting securities immediately prior to such Business Combination shall not be considered to be owned by such Beneficial Owners for the purposes of calculating their percentage of ownership of the outstanding common stock and voting power of the resulting entity); (ii) no Person (excluding any entity resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such entity resulting from the Business Combination) beneficially owns, directly or indirectly, forty percent (40%) or more of the combined voting power of the then outstanding voting securities of such entity resulting from the Business Combination unless such Person owned forty percent (40%) or more of the outstanding shares or outstanding voting securities immediately prior to the Business Combination; and (iii) at least a majority of the members of the Board of the entity resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or the action of the Board, providing for such Business Combination; or

(d) Approval by the Company's stockholders of a complete liquidation or dissolution of the Company.

For purposes of clause (c), any Person who acquires outstanding voting securities of the entity resulting from the Business Combination by virtue of ownership, prior to such Business Combination, of outstanding voting securities of both the Company and the entity or entities with which the Company is combined shall be treated as two Persons after the Business Combination, who shall be treated as owning outstanding voting securities of the entity resulting from the Business Combination by virtue of ownership, prior to such Business Combination of, respectively, outstanding voting securities of the Company, and of the entity or entities with which the Company is combined.

"Code" means the Internal Revenue Code of 1986, as amended.

"COBRA" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

*"Company"* means MEDICINOVA, INC., a Delaware corporation, provided that in recognition of the fact that the Executive may be employed by a direct or indirect Subsidiary of MEDICINOVA, INC., the term "Company" when referring to the employment relationship and the compensation or benefits related thereto shall include the employer of Executive as the context requires.

"Continuation Period" has the meaning set forth in Section 3.1(b)(iii).

*"Disability"* means the status of disability determined conclusively by the Company based upon certification of disability by the Social Security Administration or upon such other proof as the Company may reasonably require, effective upon receipt of such certification or other proof by the Company.

*"Full Release"* means a written release, timely executed so that it is fully effective no later than 60 days following the Executive's Termination Date, in a form satisfactory to the Company and counsel pursuant to which the Executive fully and completely releases the Company from any and all claims that the Executive may have against the Company or its affiliates (other than any claims that may or have arisen under this Agreement).

"Good Reason" means the occurrence of any of the events or conditions described in clauses (a) through (e) hereof, without the Executive's prior written consent:

(a)(i) any material adverse change in the Executive's status, position or responsibilities (including reporting responsibilities) from the Executive's status, position or responsibilities as in effect at any time within 180 days preceding the date of the Change in Control or at any time thereafter, or (ii) any assignment to the Executive of duties or responsibilities which are materially and adversely inconsistent with the Executive's status, position or responsibilities as in effect at any time within 180 days preceding the date of the Change in Control or at any time thereafter, in each case except in connection with the termination of the Executive's employment for Disability, Cause, as a result of the Executive's death or by the Executive other than for Good Reason;

(b) a material reduction in Executive's base salary;

(c) the imposition of a requirement that the Executive be based at any place outside a 50-mile radius from the Executive's principal place of employment immediately prior to the Change in Control, except for reasonably required travel on Company business which is not materially greater in frequency or duration than prior to the Change in Control;

(d) any material breach by the Company of any provision of this Agreement or any other agreement to which the Company and the Executive are parties; or

(e) the failure of the Company to obtain, as contemplated in Section 7, an agreement, reasonably satisfactory to the Executive, from any Successor to assume and agree to perform this Agreement.

Notwithstanding anything to the contrary in this Agreement, no termination will be deemed to be for Good Reason hereunder if it is remedied by the Company within 30 days after receipt of notice thereof given by the Executive.

"Notice of Termination" means a written notice from the Company or the Executive of the termination of the Executive's employment which indicates the specific termination provision in this Agreement relied upon and which sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated. Any such notice given by Executive of a termination for Good Reason shall be given within 90 days of the occurrence giving rise to such termination for Good Reason.

*"Person"* has the meaning as defined in Section 3(a)(9) of the Securities Exchange Act and used in Section 13(d) or 14(d) of the Securities Exchange Act, and will include any "group" as such term is used in such sections.

*"Pro Rata Bonus"* means an amount equal to the Bonus Amount multiplied by a fraction, the numerator of which is the number of days elapsed in the then fiscal year through and including the Termination Date and the denominator of which is 365.

"Securities Exchange Act" means the Securities Exchange Act of 1934, as amended.

*"Subsidiary"* means any corporation with respect to which another specified corporation has the power under ordinary circumstances to vote or direct the voting of sufficient securities to elect a majority of the directors.

*"Successor"* means a corporation or other entity acquiring all or substantially all the assets and business of the Company, whether by operation of law, by assignment or otherwise.

*"Termination Date"* means (a) in the case of the Executive's death, the Executive's date of death, (b) in the case of the termination of the Executive's employment with the Company by the Executive for Good Reason, five days after the date the Notice of Termination is received by the Company, and (c) in all other cases, the date specified in the Notice of Termination; provided that if the Executive's employment is terminated by the Company for Cause or due to Disability, the date specified in the Notice of Termination will be at least 30 days after the date the Notice of Termination is given to the Executive.

#### **SECTION 2.** Term of Agreement.

The term of this Agreement (the "**Term**") will commence on the date of this Agreement, and will continue in effect until December 31, 2014; provided that on December 31, 2014 and each anniversary of such date thereafter, the Term shall automatically be extended for one additional year unless, not later than October 1 immediately preceding such automatic extension, the Company or the Executive shall have given notice not to extend the Term; and further provided that in the event a Change in Control occurs during the Term, the Term will be extended to the date 24 months after the date of the occurrence of such Change in Control.

Notwithstanding the foregoing and subject to Section 3.2, the Term shall be deemed to have immediately expired without any further action and this Agreement will immediately terminate and be of no further effect if any of the following events occurs prior to a Change in Control:

(a) the Executive's employment with the Company is terminated (whether by the Company or the Executive) for any reason;

(b) the Executive's employment is not terminated but there is a change in his or her status, position or responsibilities (including reporting responsibilities) from that which applied to Executive on the date of this Agreement; or

(c) the Executive reaches the mandatory retirement age applicable to the Company's executive officers under any stated policy of the Company, as may be adopted and revised from time to time by the Board.

#### **SECTION 3.** Termination of Employment.

3.1 If, during the Term, the Executive's employment with the Company is terminated within 12 months following a Change in Control, the Executive will be entitled to the following compensation and benefits:

(a) If Executive's employment with the Company is terminated (i) by the Company for Cause or Disability, (ii) by reason of the Executive's death or (iii) by the Executive other than for Good Reason, the Company will pay to the Executive the Accrued Compensation and, if such termination is other than by the Company for Cause, a Pro Rata Bonus, such amount will be paid in a single lump sum cash payment by the Company to the Executive within five days after the Termination Date.

(b) If the Executive's employment with the Company is terminated (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), the Executive will be entitled to the following:

(i) the Company will pay the Executive all Accrued Compensation and a Pro Rata Bonus, such amounts will be paid in a single lump sum cash payment by the Company to the Executive within five days after the Termination Date;

(ii) subject to Section 18, if applicable, and subject to the Executive providing the Company with (and not revoking) a Full Release (taking into account any applicable period for revocation), the Company will pay the Executive as severance pay, and in lieu of any further compensation for periods subsequent to the Termination Date, in a single payment an amount in cash equal to:

(i) two (2) times the sum of (A) the Base Salary Amount and (B) the Bonus Amount, plus

(ii) the estimated premium cost to the Company of the provision of continued life insurance and disability benefits for the Executive for 18 months following the Termination Date, as determined by the Company in its sole discretion,

which amount will be paid in a single lump sum cash payment by the Company to the Executive on the 60th day following the Termination Date;

(iii) subject to Section 18, if applicable, and subject to the Executive providing the Company with (and not revoking) a Full Release (taking into account any applicable period for revocation), and complying with his or her obligations under Section 6, the Company will pay the cost of medical, dental and vision continuation coverage under COBRA for the Executive and any eligible dependents that were covered under the Company's health care plans immediately prior to the Termination Date, for a period of up to 18 months following the Termination Date (the "**Continuation Period**"), subject to the Executive's timely election and continuation of such coverage (the "**COBRA Benefit**"). Notwithstanding the foregoing, if the Company determines, in its sole discretion, that it cannot provide the COBRA Benefit without a substantial risk of violating applicable law (including the Patient Protection and Affordable Care Act), the Company instead shall pay to the Executive, on the first day of each calendar month, a fully taxable cash payment equal to the applicable COBRA premiums for that month (including premiums for the Executive and the Executive's eligible dependents who have elected and remain enrolled in such COBRA coverage), subject to applicable tax withholdings (such amount, the "**Special Cash Payment**"), for the remainder of the Continuation Period. Executive may, but is not obligated to, use such Special Cash Payments toward the cost of COBRA premiums. This Section 3.1(b)(iii) will not be interpreted so as to limit any benefits to which the Executive or the Executive's dependents or beneficiaries may be entitled under any of the Company's employee benefit plans, programs or practices following the Executive's termination of employment;

(iv) the Company shall provide the Executive with reasonable outplacement services suitable to the Executive's position for a period of 12 months or, if earlier, until the first acceptance by the Executive of an offer of employment; and

(v) such other acceleration of vesting and other benefits provided in other Company plans or agreements regarding options to purchase Company stock, restricted stock, deferral of stock or other equity compensation awards granted to or otherwise applicable to Executive.

(c) To the extent necessary to comply with Code Section 409A, any such payment, reimbursements or in-kind benefits to be paid or provided to the Executive under Section 3.1(b)(iii) and/or Section 3.1(b)(iv), shall be paid or provided as soon as practical following submission by the Executive of a reimbursement request but no later than the end of the calendar year following the calendar year in which such cost is incurred and no benefit will be paid or provided if the Executive incurs such cost after the end of the second calendar year following the calendar year in which the Termination Date occurs.

(d) The Executive will not be required to mitigate the amount of any payment provided for in this Agreement by seeking other employment or otherwise, and no such payment will be offset or reduced by the amount of any compensation or benefits provided to the Executive in any subsequent employment, except as specifically provided in Section 3.1(b)(iii) and 3.1(b)(iv).

3.2 Notwithstanding anything in this Agreement to the contrary, if, within the 30 days immediately preceding a Change in Control, (i) the Executive's employment is terminated (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), or (ii) (A) there is a material adverse change in the Executive's status, position or responsibilities (including reporting responsibilities) from that which applied to Executive on the date of this Agreement, and (B) the Executive's employment with the Company is subsequently terminated within 24 months following a Change in Control (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), the Executive shall be entitled to receive the benefits provided in Section 3.1(b).

3.3 Except as otherwise noted herein, the compensation to be paid to the Executive pursuant to Sections 3.1(a), 3.1(b)(i) and 3.1(b)(ii) of this Agreement (whether by reason of Section 3.1(a), Section 3.1(b) or Section 3.2) will be in lieu of any similar severance or termination compensation (i.e., compensation based directly on the Executive's annual salary or annual salary and bonus) to which the Executive may be entitled under any other Company severance or termination agreement, plan, program, policy, practice or arrangement.

#### **SECTION 4.** Notice of Termination.

Following a Change in Control, any purported termination of the Executive's employment by the Company will be communicated by a Notice of Termination to the Executive. For purposes of this Agreement, no such purported termination will be effective without such Notice of Termination.

#### SECTION 5. Excise Tax Adjustments.

5.1 In the event Executive becomes entitled to receive the benefits provided pursuant to Sections 3.1(b) or 3.2 herein, and the Company determines that such benefits (the "**Total Payments**") will be subject to the tax (the "**Excise Tax**") imposed by Section 4999 of the Code, or any similar tax that may hereafter be imposed, the Company shall compute the "**Net After-Tax Amount**," and the "**Reduced Amount**," and shall adjust the Total Payments as described below. The Net After-Tax Amount shall mean the present value of all amounts payable to the Executive hereunder, net of all federal income, excise and employment taxes imposed on the Executive by reason of such payments. The Reduced Amount shall mean the largest aggregate amount of the Total Payments that if paid to the Executive would result in the Executive receiving a Net After-Tax Amount that is equal to or greater than the Net After-Tax Amount that the Executive would have received if the Total Payments had been made. If the Company determines that there is a Reduced Amount, the Total Payments will be reduced to the Reduced Amount. With respect to any such reduction, payments and benefits will be reduced in the following order: first against the latest scheduled cash payments (if necessary, to zero), then against any current cash payments and benefits (other than equity or equity derivative related payments).

5.2 For purposes of determining whether the Total Payments will be subject to the Excise Tax and the amounts of such Excise Tax and for purposes of determining the Reduced Amount and the Net After-Tax Amount:

(a) Any other payments or benefits received or to be received by the Executive in connection with a Change in Control of the Company or the Executive's termination of employment (whether pursuant to the terms of this Agreement or any other plan, arrangement, or agreement with the Company, or with any individual, entity, or group of individuals or entities (individually and collectively referred to in this subsection (a) as "**Persons**") whose actions result in a change in control of the Company or any Person affiliated with the Company or such Persons) shall be treated as "**parachute payments**" within the meaning of Section 280G(b)(2) of the Code, and all "**excess parachute payments**" within the meaning of Section 280G(b)(1) of the Code shall be treated as subject to the Excise Tax, unless in the opinion of a tax advisor selected by the Company and reasonably acceptable to the Executive ("**Tax Counsel**"), such other payments or benefits (in whole or in part) should be treated by the courts as representing reasonable compensation for services actually rendered (within the meaning of Section 280G(b)(4)(B) of the Code), or otherwise not subject to the Excise Tax;

(b) The amount of the Total Payments that shall be treated as subject to the Excise Tax shall be equal to the lesser of (i) the total amount of the Total Payments; or (ii) the amount of excess parachute payments within the meaning of Section 280G(b)(1) of the Code (after applying clause (a) above);

(c) In the event that the Executive disputes any calculation or determination made by the Company, the matter shall be determined by Tax Counsel, the fees and expenses of which shall be borne solely by the Company; and

(d) The Executive shall be deemed to pay federal income taxes at the highest marginal rate of federal income taxation in the calendar year in which the Total Payments are to be made or commenced, as applicable, and state and local income taxes at the highest marginal rate of taxation in the state and locality of the Executive's residence on the effective date of employment, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes, taking into account the reduction in itemized deduction under Section 68 of the Code.

#### SECTION 6. Covenants of the Executive.

During the Continuation Period following any Change in Control pursuant to which the Executive receives the benefits pursuant to Section 3.1(b)(iii), the Executive covenants and agrees as follows:

(a) the Executive agrees to comply with his or her obligations under the any Inventions, Copyright and Confidentiality Agreement that he or she entered into with the Company; and

(b) the Executive acknowledges that the Executive has knowledge of confidential and proprietary information concerning the current salary, benefits, skills, and capabilities of Company employees and that it would be improper for the Executive to use such Company proprietary information in any manner adverse to the Company's interests. The Executive agrees that he or she will not recruit or solicit for employment, directly or indirectly, any employee of the Company during the Continuation Period.

#### SECTION 7. Successors; Binding Agreement.

This Agreement will be binding upon and will inure to the benefit of the Company and its Successors, and the Company will require any Successors to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place. Neither this Agreement nor any right or interest hereunder will be assignable or transferable by the Executive or by the Executive's beneficiaries or legal representatives, except by will or by the laws of descent and distribution. This Agreement will inure to the benefit of and be enforceable by the Executive's legal representatives.

#### **SECTION 8.** Fees and Expenses.

The Company will pay as they become due all legal fees and related expenses (including the costs of experts) incurred by the Executive, in good faith, in (a) contesting or disputing, any such termination of employment and (b) seeking to obtain or enforce any right or benefit provided by this Agreement or by any other plan or arrangement maintained by the Company under which the Executive is or may be entitled to receive benefits. Any such reimbursements under this Section 8 shall be made as soon as practicable following submission of a reimbursement request, but no later than the end of the year following the year during which the underlying expense was incurred. If the dispute is resolved by a final decision of an arbitrator pursuant to Section 15 in the favor of the Company, the Executive shall reimburse the Company for all such legal fees and related expenses (including costs of experts) paid by the Company on behalf of the Executive.

### **SECTION 9.** Notice.

For the purposes of this Agreement, notices and all other communications provided for in the Agreement (including the Notice of Termination) will be in writing and will be deemed to have been duly given when personally delivered or sent by certified mail, return receipt requested, postage prepaid, addressed to the respective addresses last given by each party to the other, provided that all notices to the Company will be directed to the attention of the Board with a copy to the Secretary of the Company. All notices and communications will be deemed to have been received on the date of delivery thereof or on the third business day after the mailing thereof, except that notice of change of address will be effective only upon receipt.

#### **SECTION 10.** Dispute Concerning Termination.

If prior to the Date of Termination (as determined without regard to this Section 10), the party receiving the Notice of Termination notifies the other party that a dispute exists concerning the termination, the Date of Termination shall be extended until the earlier of (i) the date on which the Term ends or (ii) the date on which the dispute is finally resolved, either by mutual written agreement of the parties or by a final judgment, order or decree of an arbitrator or a court of competent jurisdiction (which is not appealable or with respect to which the time for appeal therefrom has expired and no appeal has been perfected); provided, however, that the Date of Termination shall be extended by a notice of dispute given by the Executive only if such notice is given in good faith and the Executive pursues the resolution of such dispute with reasonable diligence.

#### **SECTION 11.** Compensation During Dispute.

If a purported termination occurs following a Change in Control and during the Term and the Date of Termination is extended in accordance with Section 10 hereof, the Company shall continue to pay the Executive the full compensation in effect when the notice giving rise to the dispute was given (including, but not limited to, salary) and continue the Executive as a participant in all compensation, benefit and insurance plans in which the Executive was participating when the Notice of Termination was given, until the Date of Termination, as determined in accordance with Section 10 hereof. Amounts paid under this Section 11 are in addition to all other amounts due under this Agreement and shall not be offset against or reduce any other amounts due under this Agreement or otherwise.

## SECTION 12. Nonexclusivity of Rights.

Nothing in this Agreement will prevent or limit the Executive's continuing or future participation in any benefit, bonus, incentive or other plan or program provided by the Company for which the Executive may qualify, nor will anything herein limit or reduce such rights as the Executive may have under any other agreements with the Company (except for any severance or termination provision included in any Employment Agreement covering the Executive, which in circumstances under which amounts become payable under Section 3.1(b) hereof shall be deemed superseded completely by this Agreement and of no further force and effect). Amounts which are vested benefits or which the Executive is otherwise entitled to receive under any plan or program of the Company will be payable in accordance with such plan or program, except as specifically modified by this Agreement.

## SECTION 13. No Set-Off.

The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder will not be affected by any circumstances, including any right of set-off, counterclaim, recoupment, defense or other right which the Company may have against the Executive or others.

## **SECTION 14.** Miscellaneous.

No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing and signed by the Executive and the Company. No waiver by either party hereto at any time of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party will be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreement or representation, oral or otherwise, express or implied, with respect to the subject matter hereof has been made by either party which is not expressly set forth in this Agreement.

### **SECTION 15.** Governing Law and Binding Arbitration.

This Agreement will be governed by and construed and enforced in accordance with the laws of the State of Delaware without giving effect to the conflict of laws principles thereof. All disputes relating to this Agreement, including its enforceability, shall be resolved by final and binding arbitration before an arbitrator appointed by the Judicial Arbitration and Mediation Service (**JAMS**), with the arbitration to be held in San Diego, California. Judgment upon the award may be entered in any court having jurisdiction thereof.

#### SECTION 16. Severability.

The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the other provisions hereof.

## **SECTION 17.** Entire Agreement.

This Agreement constitutes the entire agreement between the parties hereto and supersedes all prior agreements, if any, understandings and arrangements, oral or written, between the parties hereto with respect to severance protection in connection with a Change in Control.

## SECTION 18. Section 409A.

18.1 Notwithstanding any provision to the contrary in this Agreement, the Company shall delay the commencement of payments or benefits coverage to which the Executive would otherwise become entitled under the Agreement in connection with his or her termination of employment until the earlier of (i) the expiration of the six-month period measured from the date of the Executive's "**separation from service**" with the Company (as such term is defined in Treasury Regulations issued under Section 409A of the Code) or (ii) the date of the Executive's death, if and only if the Company in good faith determines that the Executive is a "**specified employee**" within the meaning of that term under Code Section 409A(a)(2)(B) at the time of such separation from service and that such delayed commencement is otherwise required in order to avoid a prohibited distribution under Section 409A(a)(2) of

the Code. Upon the expiration of the applicable Code Section 409A(a)(2) deferral period, all payments and benefits deferred pursuant to this Section 18 (whether they would have otherwise been payable in a single sum or in installments in the absence of such deferral) shall be paid or reimbursed to the Executive in a lump sum with interest at the prime rate as published in <u>The Wall Street Journal</u> on the first business day following the end of the deferral period, and any remaining payments and benefits due under the Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein.

18.2 The provisions of this Agreement which require commencement of payments or benefits coverage subject to Section 409A upon a termination of employment shall be interpreted to require that the Executive have a "**separation from service**" with the Company (as such term is defined in Treasury Regulations issued under Code Section 409A).

18.3 With regard to any provision herein that provides for the reimbursement of costs and expenses or in-kind benefits, except as permitted by Code Section 409A, (i) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (ii) the amount of expense eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year, <u>provided</u> that the foregoing clause (ii) shall not be violated with regard to expenses reimbursed under any arrangement covered by Section 105(b) of the Code solely because such expenses are subject to a limit related to the period the arrangement is in effect and (iii) such payments shall be paid or provided as soon as practical following submission by the Executive of a reimbursement request but no later than the end of the calendar year following the calendar year in which such expense is incurred.

18.4 For purposes of Code Section 409A, Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. In no event may Executive, directly or indirectly, designate the calendar year of any payment to be made under this Agreement that is considered nonqualified deferred compensation.

18.5 The provisions of this Section 18 are intended to assure that any benefits provided to Executive hereunder shall comply with Code Section 409A and this Agreement shall be interpreted consistent with such section in all respects.

IN WITNESS WHEREOF, the undersigned have executed the above agreement as of the date set forth first above.

MEDICINOVA, INC., A Delaware Corporation EXECUTIVE

By: <u>/s/ Yuichi Iwaki</u> Name: Yuichi Iwaki Title: President and CEO /s/ Masatsune Okajima Masatsune Okajima

## SEVERANCE PROTECTION AGREEMENT

SEVERANCE PROTECTION AGREEMENT, dated July 14, 2014, by and between MediciNova, Inc., a Delaware corporation (the "**Company**"), and Dr. Kazuko Matsuda (the "**Executive**").

## PURPOSE

The Board of Directors of the Company (the "**Board**") recognizes that the possibility of a Change in Control (as hereinafter defined) of the Company exists and that the threat or occurrence of a Change in Control may result in the distraction of its key management personnel because of the uncertainties inherent in such a situation.

The Board has determined that it is essential and in the best interests of the Company and its stockholders to retain the services of the Executive in the event of the threat or occurrence of a Change in Control and to ensure the Executive's continued dedication and efforts in such event without undue concern for the Executive's personal financial and employment security.

In order to induce the Executive to remain in the employ of the Company, particularly in the event of the threat or occurrence of a Change in Control, the Company desires to enter into this Agreement to provide the Executive with certain benefits in the event the Executive's employment is terminated as a result of, or in connection with, a Change in Control.

NOW, THEREFORE, in consideration of the respective agreements of the parties contained herein, it is agreed as follows:

### **SECTION 1.** Definitions.

For purposes of this Agreement, the following terms have the meanings set forth below:

"Accrued Compensation" means an amount which includes all amounts earned or accrued by the Executive through and including the Termination Date but not paid to the Executive on or prior to such date, including (a) all base salary, (b) reimbursement for all reasonable and necessary expenses incurred by the Executive on behalf of the Company during the period ending on the Termination Date, (c) all vacation pay and (d) all bonuses and incentive compensation (other than the Pro Rata Bonus).

"Base Salary Amount" means the greater of the Executive's annual base salary (a) at the rate in effect on the Termination Date and (b) at the highest rate in effect at any time during the 180-day period prior to a Change in Control, and will include all amounts of the Executive's base salary that are deferred under any qualified or non-qualified employee benefit plan of the Company or any other agreement or arrangement.

*"Beneficial Owner"* has the meaning as used in Rule 13d-3 promulgated under the Securities Exchange Act. The terms "Beneficially Owned" and "Beneficial Ownership" each have a correlative meaning.

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

"Bonus Amount" means the greatest of (a) the annual bonus paid or payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of the fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs, (b) the average of the annual bonus paid or payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of each of the three fiscal years ending immediately prior to the fiscal year in which the Termination Date occurs (or, if higher, ending in respect of each of the three fiscal years ending immediately prior to the fiscal year in which the Change in Control occurs) or (c) in the event that the Executive was not employed by the Company for the entire fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs, the annual target bonus established and payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of the fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs. Bonus Amount includes only the short-term incentive portion of the annual bonus and does not include restricted stock awards, options or other long-term incentive compensation awarded to the Executive.

*"Cause"* for the termination of the Executive's employment with the Company will be deemed to exist if (a) the Executive has been convicted for committing an act of fraud, embezzlement, theft or other act constituting a

felony (other than traffic related offenses or as a result of vicarious liability), (b) the Executive willfully engages in illegal conduct or gross misconduct that is significantly injurious to the Company; however, no act or failure to act on the Executive's part shall be considered "willful" unless done or omitted to be done by the Executive not in good faith and without reasonable belief that his or her action or omission was in the best interest of the Company or (c) failure to perform his or her duties in a reasonably satisfactory manner after the receipt of a notice from the Company detailing such failure if the failure is incapable of cure, and if the failure is capable of cure, upon the failure to cure such failure within 30 days of such notice or upon its recurrence.

"Change in Control" of the Company means, and shall be deemed to have occurred upon, any of the following events:

(a) The acquisition by any Person of beneficial ownership (as defined in Rule 13d-3 of the General Rules and Regulations under the Securities Exchange Act) of forty percent (40%) or more of the outstanding voting securities; provided, however, that the following acquisitions shall not constitute a Change in Control for purposes of this subparagraph (a): (A) any acquisition directly from the Company; (B) any acquisition by the Company or any of its Subsidiaries; (C) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Subsidiaries; or (D) any acquisition by any corporation pursuant to a transaction which complies with clauses (i), (ii) and (iii) of subparagraph (c) below; or

(b) Individuals who, as of January1, 2014, constitute the Board (the "**Incumbent Board**") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual who becomes a director of the Company subsequent to January 1, 2014, and whose election, or whose nomination for election by the Company's stockholders, to the Board was either (i) approved by a vote of at least a majority of the directors then comprising the Incumbent Board or (ii) recommended by a nominating committee comprised entirely of directors who are then Incumbent Board members shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest (as such terms are used in Rule 14a-11 of Regulation 14A promulgated under the Securities Exchange Act), other actual or threatened solicitation of proxies or consents or an actual or threatened tender offer; or

(c) Consummation of a reorganization, merger, or consolidation or sale or other disposition of all or substantially all of the assets of the Company (a "Business Combination"), in each case unless following such Business Combination, (i) all or substantially all of the Persons who were the Beneficial Owners, respectively, of the outstanding shares and outstanding voting securities immediately prior to such Business Combination own, directly or indirectly, more than fifty percent (50%) of the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors of the Company, as the case may be, of the entity resulting from the Business Combination (including, without limitation, an entity which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the outstanding voting securities (provided, however, that for purposes of this clause (i) any shares of common stock or voting securities of such resulting entity received by such Beneficial Owners in such Business Combination other than as the result of such Beneficial Owners' ownership of outstanding shares or outstanding voting securities immediately prior to such Business Combination shall not be considered to be owned by such Beneficial Owners for the purposes of calculating their percentage of ownership of the outstanding common stock and voting power of the resulting entity); (ii) no Person (excluding any entity resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such entity resulting from the Business Combination) beneficially owns, directly or indirectly, forty percent (40%) or more of the combined voting power of the then outstanding voting securities of such entity resulting from the Business Combination unless such Person owned forty percent (40%) or more of the outstanding shares or outstanding voting securities immediately prior to the Business Combination; and (iii) at least a majority of the members of the Board of the entity resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or the action of the Board, providing for such Business Combination; or

(d) Approval by the Company's stockholders of a complete liquidation or dissolution of the Company.

For purposes of clause (c), any Person who acquires outstanding voting securities of the entity resulting from the Business Combination by virtue of ownership, prior to such Business Combination, of outstanding voting securities of both the Company and the entity or entities with which the Company is combined shall be treated as two Persons after the Business Combination, who shall be treated as owning outstanding voting securities of the entity resulting from the Business Combination by virtue of ownership, prior to such Business Combination of, respectively, outstanding voting securities of the Company, and of the entity or entities with which the Company is combined.

"Code" means the Internal Revenue Code of 1986, as amended.

"COBRA" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

*"Company"* means MEDICINOVA, INC., a Delaware corporation, provided that in recognition of the fact that the Executive may be employed by a direct or indirect Subsidiary of MEDICINOVA, INC., the term "Company" when referring to the employment relationship and the compensation or benefits related thereto shall include the employer of Executive as the context requires.

"Continuation Period" has the meaning set forth in Section 3.1(b)(iii).

*"Disability"* means the status of disability determined conclusively by the Company based upon certification of disability by the Social Security Administration or upon such other proof as the Company may reasonably require, effective upon receipt of such certification or other proof by the Company.

*"Full Release"* means a written release, timely executed so that it is fully effective no later than 60 days following the Executive's Termination Date, in a form satisfactory to the Company and counsel pursuant to which the Executive fully and completely releases the Company from any and all claims that the Executive may have against the Company or its affiliates (other than any claims that may or have arisen under this Agreement).

"Good Reason" means the occurrence of any of the events or conditions described in clauses (a) through (e) hereof, without the Executive's prior written consent:

(a)(i) any material adverse change in the Executive's status, position or responsibilities (including reporting responsibilities) from the Executive's status, position or responsibilities as in effect at any time within 180 days preceding the date of the Change in Control or at any time thereafter, or (ii) any assignment to the Executive of duties or responsibilities which are materially and adversely inconsistent with the Executive's status, position or responsibilities as in effect at any time within 180 days preceding the date of the Change in Control or at any time thereafter, in each case except in connection with the termination of the Executive's employment for Disability, Cause, as a result of the Executive's death or by the Executive other than for Good Reason;

(b) a material reduction in Executive's base salary;

(c) the imposition of a requirement that the Executive be based at any place outside a 50-mile radius from the Executive's principal place of employment immediately prior to the Change in Control, except for reasonably required travel on Company business which is not materially greater in frequency or duration than prior to the Change in Control;

(d) any material breach by the Company of any provision of this Agreement or any other agreement to which the Company and the Executive are parties; or

(e) the failure of the Company to obtain, as contemplated in Section 7, an agreement, reasonably satisfactory to the Executive, from any Successor to assume and agree to perform this Agreement.

Notwithstanding anything to the contrary in this Agreement, no termination will be deemed to be for Good Reason hereunder if it is remedied by the Company within 30 days after receipt of notice thereof given by the Executive.

"Notice of Termination" means a written notice from the Company or the Executive of the termination of the Executive's employment which indicates the specific termination provision in this Agreement relied upon and which sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated. Any such notice given by Executive of a termination for Good Reason shall be given within 90 days of the occurrence giving rise to such termination for Good Reason.

*"Person"* has the meaning as defined in Section 3(a)(9) of the Securities Exchange Act and used in Section 13(d) or 14(d) of the Securities Exchange Act, and will include any "group" as such term is used in such sections.

*"Pro Rata Bonus"* means an amount equal to the Bonus Amount multiplied by a fraction, the numerator of which is the number of days elapsed in the then fiscal year through and including the Termination Date and the denominator of which is 365.

"Securities Exchange Act" means the Securities Exchange Act of 1934, as amended.

*"Subsidiary"* means any corporation with respect to which another specified corporation has the power under ordinary circumstances to vote or direct the voting of sufficient securities to elect a majority of the directors.

*"Successor"* means a corporation or other entity acquiring all or substantially all the assets and business of the Company, whether by operation of law, by assignment or otherwise.

*"Termination Date"* means (a) in the case of the Executive's death, the Executive's date of death, (b) in the case of the termination of the Executive's employment with the Company by the Executive for Good Reason, five days after the date the Notice of Termination is received by the Company, and (c) in all other cases, the date specified in the Notice of Termination; provided that if the Executive's employment is terminated by the Company for Cause or due to Disability, the date specified in the Notice of Termination will be at least 30 days after the date the Notice of Termination is given to the Executive.

## **SECTION 2.** Term of Agreement.

The term of this Agreement (the "**Term**") will commence on the date of this Agreement, and will continue in effect until December 31, 2014; provided that on December 31, 2014 and each anniversary of such date thereafter, the Term shall automatically be extended for one additional year unless, not later than October 1 immediately preceding such automatic extension, the Company or the Executive shall have given notice not to extend the Term; and further provided that in the event a Change in Control occurs during the Term, the Term will be extended to the date 24 months after the date of the occurrence of such Change in Control.

Notwithstanding the foregoing and subject to Section 3.2, the Term shall be deemed to have immediately expired without any further action and this Agreement will immediately terminate and be of no further effect if any of the following events occurs prior to a Change in Control:

(a) the Executive's employment with the Company is terminated (whether by the Company or the Executive) for any reason;

(b) the Executive's employment is not terminated but there is a change in his or her status, position or responsibilities (including reporting responsibilities) from that which applied to Executive on the date of this Agreement; or

(c) the Executive reaches the mandatory retirement age applicable to the Company's executive officers under any stated policy of the Company, as may be adopted and revised from time to time by the Board.

### **SECTION 3.** Termination of Employment.

3.1 If, during the Term, the Executive's employment with the Company is terminated within 12 months following a Change in Control, the Executive will be entitled to the following compensation and benefits:

(a) If Executive's employment with the Company is terminated (i) by the Company for Cause or Disability, (ii) by reason of the Executive's death or (iii) by the Executive other than for Good Reason, the Company will pay to the Executive the Accrued Compensation and, if such termination is other than by the Company for Cause, a Pro Rata Bonus, such amount will be paid in a single lump sum cash payment by the Company to the Executive within five days after the Termination Date.

(b) If the Executive's employment with the Company is terminated (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), the Executive will be entitled to the following:

(i) the Company will pay the Executive all Accrued Compensation and a Pro Rata Bonus, such amounts will be paid in a single lump sum cash payment by the Company to the Executive within five days after the Termination Date;

(ii) subject to Section 18, if applicable, and subject to the Executive providing the Company with (and not revoking) a Full Release (taking into account any applicable period for revocation), the Company will pay the Executive as severance pay, and in lieu of any further compensation for periods subsequent to the Termination Date, in a single payment an amount in cash equal to:

(i) two (2) times the sum of (A) the Base Salary Amount and (B) the Bonus Amount, plus

(ii) the estimated premium cost to the Company of the provision of continued life insurance and disability benefits for the Executive for 18 months following the Termination Date, as determined by the Company in its sole discretion,

which amount will be paid in a single lump sum cash payment by the Company to the Executive on the 60th day following the Termination Date;

(iii) subject to Section 18, if applicable, and subject to the Executive providing the Company with (and not revoking) a Full Release (taking into account any applicable period for revocation), and complying with his or her obligations under Section 6, the Company will pay the cost of medical, dental and vision continuation coverage under COBRA for the Executive and any eligible dependents that were covered under the Company's health care plans immediately prior to the Termination Date, for a period of up to 18 months following the Termination Date (the "**Continuation Period**"), subject to the Executive's timely election and continuation of such coverage (the "**COBRA Benefit**"). Notwithstanding the foregoing, if the Company determines, in its sole discretion, that it cannot provide the COBRA Benefit without a substantial risk of violating applicable law (including the Patient Protection and Affordable Care Act), the Company instead shall pay to the Executive, on the first day of each calendar month, a fully taxable cash payment equal to the applicable COBRA premiums for that month (including premiums for the Executive and the Executive's eligible dependents who have elected and remain enrolled in such COBRA coverage), subject to applicable tax withholdings (such amount, the "**Special Cash Payment**"), for the remainder of the Continuation Period. Executive may, but is not obligated to, use such Special Cash Payments toward the cost of COBRA premiums. This Section 3.1(b)(iii) will not be interpreted so as to limit any benefits to which the Executive or the Executive's dependents or beneficiaries may be entitled under any of the Company's employee benefit plans, programs or practices following the Executive's termination of employment;

(iv) the Company shall provide the Executive with reasonable outplacement services suitable to the Executive's position for a period of 12 months or, if earlier, until the first acceptance by the Executive of an offer of employment; and

(v) such other acceleration of vesting and other benefits provided in other Company plans or agreements regarding options to purchase Company stock, restricted stock, deferral of stock or other equity compensation awards granted to or otherwise applicable to Executive.

(c) To the extent necessary to comply with Code Section 409A, any such payment, reimbursements or in-kind benefits to be paid or provided to the Executive under Section 3.1(b)(iii) and/or Section 3.1(b)(iv), shall be paid or provided as soon as practical following submission by the Executive of a reimbursement request but no later than the end of the calendar year following the calendar year in which such cost is incurred and no benefit will be paid or provided if the Executive incurs such cost after the end of the second calendar year following the calendar year in which the Termination Date occurs.

(d) The Executive will not be required to mitigate the amount of any payment provided for in this Agreement by seeking other employment or otherwise, and no such payment will be offset or reduced by the amount of any compensation or benefits provided to the Executive in any subsequent employment, except as specifically provided in Section 3.1(b)(iii) and 3.1(b)(iv).

3.2 Notwithstanding anything in this Agreement to the contrary, if, within the 30 days immediately preceding a Change in Control, (i) the Executive's employment is terminated (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), or (ii) (A) there is a material adverse change in the Executive's status, position or responsibilities (including reporting responsibilities) from that which applied to Executive on the date of this Agreement, and (B) the Executive's employment with the Company is subsequently terminated within 24 months following a Change in Control (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), the Executive shall be entitled to receive the benefits provided in Section 3.1(b).

3.3 Except as otherwise noted herein, the compensation to be paid to the Executive pursuant to Sections 3.1(a), 3.1(b)(i) and 3.1(b)(ii) of this Agreement (whether by reason of Section 3.1(a), Section 3.1(b) or Section 3.2) will be in lieu of any similar severance or termination compensation (i.e., compensation based directly on the Executive's annual salary or annual salary and bonus) to which the Executive may be entitled under any other Company severance or termination agreement, plan, program, policy, practice or arrangement.

### **SECTION 4.** Notice of Termination.

Following a Change in Control, any purported termination of the Executive's employment by the Company will be communicated by a Notice of Termination to the Executive. For purposes of this Agreement, no such purported termination will be effective without such Notice of Termination.

### SECTION 5. Excise Tax Adjustments.

5.1 In the event Executive becomes entitled to receive the benefits provided pursuant to Sections 3.1(b) or 3.2 herein, and the Company determines that such benefits (the "**Total Payments**") will be subject to the tax (the "**Excise Tax**") imposed by Section 4999 of the Code, or any similar tax that may hereafter be imposed, the Company shall compute the "**Net After-Tax Amount**," and the "**Reduced Amount**," and shall adjust the Total Payments as described below. The Net After-Tax Amount shall mean the present value of all amounts payable to the Executive hereunder, net of all federal income, excise and employment taxes imposed on the Executive by reason of such payments. The Reduced Amount shall mean the largest aggregate amount of the Total Payments that if paid to the Executive would result in the Executive receiving a Net After-Tax Amount that is equal to or greater than the Net After-Tax Amount that the Executive would have received if the Total Payments had been made. If the Company determines that there is a Reduced Amount, the Total Payments will be reduced to the Reduced Amount. With respect to any such reduction, payments and benefits will be reduced in the following order: first against the latest scheduled cash payments (if necessary, to zero), then against any current cash payments and benefits (other than equity or equity derivative related payments).

5.2 For purposes of determining whether the Total Payments will be subject to the Excise Tax and the amounts of such Excise Tax and for purposes of determining the Reduced Amount and the Net After-Tax Amount:

(a) Any other payments or benefits received or to be received by the Executive in connection with a Change in Control of the Company or the Executive's termination of employment (whether pursuant to the terms of this Agreement or any other plan, arrangement, or agreement with the Company, or with any individual, entity, or group of individuals or entities (individually and collectively referred to in this subsection (a) as "**Persons**") whose actions result in a change in control of the Company or any Person affiliated with the Company or such Persons) shall be treated as "**parachute payments**" within the meaning of Section 280G(b)(2) of the Code, and all "**excess parachute payments**" within the meaning of Section 280G(b)(1) of the Code shall be treated as subject to the Excise Tax, unless in the opinion of a tax advisor selected by the Company and reasonably acceptable to the Executive ("**Tax Counsel**"), such other payments or benefits (in whole or in part) should be treated by the courts as representing reasonable compensation for services actually rendered (within the meaning of Section 280G(b)(4)(B) of the Code), or otherwise not subject to the Excise Tax;

(b) The amount of the Total Payments that shall be treated as subject to the Excise Tax shall be equal to the lesser of (i) the total amount of the Total Payments; or (ii) the amount of excess parachute payments within the meaning of Section 280G(b)(1) of the Code (after applying clause (a) above);

(c) In the event that the Executive disputes any calculation or determination made by the Company, the matter shall be determined by Tax Counsel, the fees and expenses of which shall be borne solely by the Company; and

(d) The Executive shall be deemed to pay federal income taxes at the highest marginal rate of federal income taxation in the calendar year in which the Total Payments are to be made or commenced, as applicable, and state and local income taxes at the highest marginal rate of taxation in the state and locality of the Executive's residence on the effective date of employment, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes, taking into account the reduction in itemized deduction under Section 68 of the Code.

# SECTION 6. Covenants of the Executive.

During the Continuation Period following any Change in Control pursuant to which the Executive receives the benefits pursuant to Section 3.1(b)(iii), the Executive covenants and agrees as follows:

(a) the Executive agrees to comply with his or her obligations under the any Inventions, Copyright and Confidentiality Agreement that he or she entered into with the Company; and

(b) the Executive acknowledges that the Executive has knowledge of confidential and proprietary information concerning the current salary, benefits, skills, and capabilities of Company employees and that it would be improper for the Executive to use such Company proprietary information in any manner adverse to the Company's interests. The Executive agrees that he or she will not recruit or solicit for employment, directly or indirectly, any employee of the Company during the Continuation Period.

## SECTION 7. Successors; Binding Agreement.

This Agreement will be binding upon and will inure to the benefit of the Company and its Successors, and the Company will require any Successors to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place. Neither this Agreement nor any right or interest hereunder will be assignable or transferable by the Executive or by the Executive's beneficiaries or legal representatives, except by will or by the laws of descent and distribution. This Agreement will inure to the benefit of and be enforceable by the Executive's legal representatives.

### **SECTION 8.** Fees and Expenses.

The Company will pay as they become due all legal fees and related expenses (including the costs of experts) incurred by the Executive, in good faith, in (a) contesting or disputing, any such termination of employment and (b) seeking to obtain or enforce any right or benefit provided by this Agreement or by any other plan or arrangement maintained by the Company under which the Executive is or may be entitled to receive benefits. Any such reimbursements under this Section 8 shall be made as soon as practicable following submission of a reimbursement request, but no later than the end of the year following the year during which the underlying expense was incurred. If the dispute is resolved by a final decision of an arbitrator pursuant to Section 15 in the favor of the Company, the Executive shall reimburse the Company for all such legal fees and related expenses (including costs of experts) paid by the Company on behalf of the Executive.

# **SECTION 9.** Notice.

For the purposes of this Agreement, notices and all other communications provided for in the Agreement (including the Notice of Termination) will be in writing and will be deemed to have been duly given when personally delivered or sent by certified mail, return receipt requested, postage prepaid, addressed to the respective addresses last given by each party to the other, provided that all notices to the Company will be directed to the attention of the Board with a copy to the Secretary of the Company. All notices and communications will be deemed to have been received on the date of delivery thereof or on the third business day after the mailing thereof, except that notice of change of address will be effective only upon receipt.

#### **SECTION 10.** Dispute Concerning Termination.

If prior to the Date of Termination (as determined without regard to this Section 10), the party receiving the Notice of Termination notifies the other party that a dispute exists concerning the termination, the Date of Termination shall be extended until the earlier of (i) the date on which the Term ends or (ii) the date on which the dispute is finally resolved, either by mutual written agreement of the parties or by a final judgment, order or decree of an arbitrator or a court of competent jurisdiction (which is not appealable or with respect to which the time for appeal therefrom has expired and no appeal has been perfected); provided, however, that the Date of Termination shall be extended by a notice of dispute given by the Executive only if such notice is given in good faith and the Executive pursues the resolution of such dispute with reasonable diligence.

#### **SECTION 11.** Compensation During Dispute.

If a purported termination occurs following a Change in Control and during the Term and the Date of Termination is extended in accordance with Section 10 hereof, the Company shall continue to pay the Executive the full compensation in effect when the notice giving rise to the dispute was given (including, but not limited to, salary) and continue the Executive as a participant in all compensation, benefit and insurance plans in which the Executive was participating when the Notice of Termination was given, until the Date of Termination, as determined in accordance with Section 10 hereof. Amounts paid under this Section 11 are in addition to all other amounts due under this Agreement and shall not be offset against or reduce any other amounts due under this Agreement or otherwise.

## SECTION 12. Nonexclusivity of Rights.

Nothing in this Agreement will prevent or limit the Executive's continuing or future participation in any benefit, bonus, incentive or other plan or program provided by the Company for which the Executive may qualify, nor will anything herein limit or reduce such rights as the Executive may have under any other agreements with the Company (except for any severance or termination provision included in any Employment Agreement covering the Executive, which in circumstances under which amounts become payable under Section 3.1(b) hereof shall be deemed superseded completely by this Agreement and of no further force and effect). Amounts which are vested benefits or which the Executive is otherwise entitled to receive under any plan or program of the Company will be payable in accordance with such plan or program, except as specifically modified by this Agreement.

## SECTION 13. No Set-Off.

The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder will not be affected by any circumstances, including any right of set-off, counterclaim, recoupment, defense or other right which the Company may have against the Executive or others.

## **SECTION 14.** Miscellaneous.

No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing and signed by the Executive and the Company. No waiver by either party hereto at any time of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party will be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreement or representation, oral or otherwise, express or implied, with respect to the subject matter hereof has been made by either party which is not expressly set forth in this Agreement.

### **SECTION 15.** Governing Law and Binding Arbitration.

This Agreement will be governed by and construed and enforced in accordance with the laws of the State of Delaware without giving effect to the conflict of laws principles thereof. All disputes relating to this Agreement, including its enforceability, shall be resolved by final and binding arbitration before an arbitrator appointed by the Judicial Arbitration and Mediation Service (**JAMS**), with the arbitration to be held in San Diego, California. Judgment upon the award may be entered in any court having jurisdiction thereof.

#### SECTION 16. Severability.

The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the other provisions hereof.

## **SECTION 17.** Entire Agreement.

This Agreement constitutes the entire agreement between the parties hereto and supersedes all prior agreements, if any, understandings and arrangements, oral or written, between the parties hereto with respect to severance protection in connection with a Change in Control.

## SECTION 18. Section 409A.

18.1 Notwithstanding any provision to the contrary in this Agreement, the Company shall delay the commencement of payments or benefits coverage to which the Executive would otherwise become entitled under the Agreement in connection with his or her termination of employment until the earlier of (i) the expiration of the six-month period measured from the date of the Executive's **"separation from service**" with the Company (as such term is defined in Treasury Regulations issued under Section 409A of the Code) or (ii) the date of the Executive's death, if and only if the Company in good faith determines that the Executive is a **"specified employee**" within the meaning of that term under Code Section 409A(a)(2)(B) at the time of such separation from service and that such delayed commencement is otherwise required in order to avoid a prohibited distribution under Section 409A(a)(2) of

the Code. Upon the expiration of the applicable Code Section 409A(a)(2) deferral period, all payments and benefits deferred pursuant to this Section 18 (whether they would have otherwise been payable in a single sum or in installments in the absence of such deferral) shall be paid or reimbursed to the Executive in a lump sum with interest at the prime rate as published in <u>The Wall Street Journal</u> on the first business day following the end of the deferral period, and any remaining payments and benefits due under the Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein.

18.2 The provisions of this Agreement which require commencement of payments or benefits coverage subject to Section 409A upon a termination of employment shall be interpreted to require that the Executive have a "**separation from service**" with the Company (as such term is defined in Treasury Regulations issued under Code Section 409A).

18.3 With regard to any provision herein that provides for the reimbursement of costs and expenses or in-kind benefits, except as permitted by Code Section 409A, (i) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (ii) the amount of expense eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year, <u>provided</u> that the foregoing clause (ii) shall not be violated with regard to expenses reimbursed under any arrangement covered by Section 105(b) of the Code solely because such expenses are subject to a limit related to the period the arrangement is in effect and (iii) such payments shall be paid or provided as soon as practical following submission by the Executive of a reimbursement request but no later than the end of the calendar year following the calendar year in which such expense is incurred.

18.4 For purposes of Code Section 409A, Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. In no event may Executive, directly or indirectly, designate the calendar year of any payment to be made under this Agreement that is considered nonqualified deferred compensation.

18.5 The provisions of this Section 18 are intended to assure that any benefits provided to Executive hereunder shall comply with Code Section 409A and this Agreement shall be interpreted consistent with such section in all respects.

IN WITNESS WHEREOF, the undersigned have executed the above agreement as of the date set forth first above.

MEDICINOVA, INC., A Delaware Corporation

By: <u>/s/ Yuichi Iwaki</u> Name: Yuichi Iwaki Title: President and CEO EXECUTIVE

/s/ Kazuko Matsuda Kazuko Matsuda

## SEVERANCE PROTECTION AGREEMENT

SEVERANCE PROTECTION AGREEMENT, dated July 14, 2014, by and between MediciNova, Inc., a Delaware corporation (the "**Company**"), and Geoffrey O'Brien (the "**Executive**").

## PURPOSE

The Board of Directors of the Company (the "**Board**") recognizes that the possibility of a Change in Control (as hereinafter defined) of the Company exists and that the threat or occurrence of a Change in Control may result in the distraction of its key management personnel because of the uncertainties inherent in such a situation.

The Board has determined that it is essential and in the best interests of the Company and its stockholders to retain the services of the Executive in the event of the threat or occurrence of a Change in Control and to ensure the Executive's continued dedication and efforts in such event without undue concern for the Executive's personal financial and employment security.

In order to induce the Executive to remain in the employ of the Company, particularly in the event of the threat or occurrence of a Change in Control, the Company desires to enter into this Agreement to provide the Executive with certain benefits in the event the Executive's employment is terminated as a result of, or in connection with, a Change in Control.

NOW, THEREFORE, in consideration of the respective agreements of the parties contained herein, it is agreed as follows:

### **SECTION 1.** Definitions.

For purposes of this Agreement, the following terms have the meanings set forth below:

"Accrued Compensation" means an amount which includes all amounts earned or accrued by the Executive through and including the Termination Date but not paid to the Executive on or prior to such date, including (a) all base salary, (b) reimbursement for all reasonable and necessary expenses incurred by the Executive on behalf of the Company during the period ending on the Termination Date, (c) all vacation pay and (d) all bonuses and incentive compensation (other than the Pro Rata Bonus).

"Base Salary Amount" means the greater of the Executive's annual base salary (a) at the rate in effect on the Termination Date and (b) at the highest rate in effect at any time during the 180-day period prior to a Change in Control, and will include all amounts of the Executive's base salary that are deferred under any qualified or non-qualified employee benefit plan of the Company or any other agreement or arrangement.

*"Beneficial Owner"* has the meaning as used in Rule 13d-3 promulgated under the Securities Exchange Act. The terms "Beneficially Owned" and "Beneficial Ownership" each have a correlative meaning.

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

"Bonus Amount" means the greatest of (a) the annual bonus paid or payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of the fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs, (b) the average of the annual bonus paid or payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of each of the three fiscal years ending immediately prior to the fiscal year in which the Termination Date occurs (or, if higher, ending in respect of each of the three fiscal years ending immediately prior to the fiscal year in which the Change in Control occurs) or (c) in the event that the Executive was not employed by the Company for the entire fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs, the annual target bonus established and payable to the Executive pursuant to any annual bonus or incentive plan maintained by the Company in respect of the fiscal year ending immediately prior to the fiscal year in which the Termination Date occurs. Bonus Amount includes only the short-term incentive portion of the annual bonus and does not include restricted stock awards, options or other long-term incentive compensation awarded to the Executive.

*"Cause"* for the termination of the Executive's employment with the Company will be deemed to exist if (a) the Executive has been convicted for committing an act of fraud, embezzlement, theft or other act constituting a

felony (other than traffic related offenses or as a result of vicarious liability), (b) the Executive willfully engages in illegal conduct or gross misconduct that is significantly injurious to the Company; however, no act or failure to act on the Executive's part shall be considered "willful" unless done or omitted to be done by the Executive not in good faith and without reasonable belief that his or her action or omission was in the best interest of the Company or (c) failure to perform his or her duties in a reasonably satisfactory manner after the receipt of a notice from the Company detailing such failure if the failure is incapable of cure, and if the failure is capable of cure, upon the failure to cure such failure within 30 days of such notice or upon its recurrence.

"Change in Control" of the Company means, and shall be deemed to have occurred upon, any of the following events:

(a) The acquisition by any Person of beneficial ownership (as defined in Rule 13d-3 of the General Rules and Regulations under the Securities Exchange Act) of forty percent (40%) or more of the outstanding voting securities; provided, however, that the following acquisitions shall not constitute a Change in Control for purposes of this subparagraph (a): (A) any acquisition directly from the Company; (B) any acquisition by the Company or any of its Subsidiaries; (C) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Subsidiaries; or (D) any acquisition by any corporation pursuant to a transaction which complies with clauses (i), (ii) and (iii) of subparagraph (c) below; or

(b) Individuals who, as of January1, 2014, constitute the Board (the "**Incumbent Board**") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual who becomes a director of the Company subsequent to January 1, 2014, and whose election, or whose nomination for election by the Company's stockholders, to the Board was either (i) approved by a vote of at least a majority of the directors then comprising the Incumbent Board or (ii) recommended by a nominating committee comprised entirely of directors who are then Incumbent Board members shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest (as such terms are used in Rule 14a-11 of Regulation 14A promulgated under the Securities Exchange Act), other actual or threatened solicitation of proxies or consents or an actual or threatened tender offer; or

(c) Consummation of a reorganization, merger, or consolidation or sale or other disposition of all or substantially all of the assets of the Company (a "Business Combination"), in each case unless following such Business Combination, (i) all or substantially all of the Persons who were the Beneficial Owners, respectively, of the outstanding shares and outstanding voting securities immediately prior to such Business Combination own, directly or indirectly, more than fifty percent (50%) of the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors of the Company, as the case may be, of the entity resulting from the Business Combination (including, without limitation, an entity which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the outstanding voting securities (provided, however, that for purposes of this clause (i) any shares of common stock or voting securities of such resulting entity received by such Beneficial Owners in such Business Combination other than as the result of such Beneficial Owners' ownership of outstanding shares or outstanding voting securities immediately prior to such Business Combination shall not be considered to be owned by such Beneficial Owners for the purposes of calculating their percentage of ownership of the outstanding common stock and voting power of the resulting entity); (ii) no Person (excluding any entity resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such entity resulting from the Business Combination) beneficially owns, directly or indirectly, forty percent (40%) or more of the combined voting power of the then outstanding voting securities of such entity resulting from the Business Combination unless such Person owned forty percent (40%) or more of the outstanding shares or outstanding voting securities immediately prior to the Business Combination; and (iii) at least a majority of the members of the Board of the entity resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or the action of the Board, providing for such Business Combination; or

(d) Approval by the Company's stockholders of a complete liquidation or dissolution of the Company.

For purposes of clause (c), any Person who acquires outstanding voting securities of the entity resulting from the Business Combination by virtue of ownership, prior to such Business Combination, of outstanding voting securities of both the Company and the entity or entities with which the Company is combined shall be treated as two Persons after the Business Combination, who shall be treated as owning outstanding voting securities of the entity resulting from the Business Combination by virtue of ownership, prior to such Business Combination of, respectively, outstanding voting securities of the Company, and of the entity or entities with which the Company is combined.

"Code" means the Internal Revenue Code of 1986, as amended.

"COBRA" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

*"Company"* means MEDICINOVA, INC., a Delaware corporation, provided that in recognition of the fact that the Executive may be employed by a direct or indirect Subsidiary of MEDICINOVA, INC., the term "Company" when referring to the employment relationship and the compensation or benefits related thereto shall include the employer of Executive as the context requires.

"Continuation Period" has the meaning set forth in Section 3.1(b)(iii).

*"Disability"* means the status of disability determined conclusively by the Company based upon certification of disability by the Social Security Administration or upon such other proof as the Company may reasonably require, effective upon receipt of such certification or other proof by the Company.

*"Full Release"* means a written release, timely executed so that it is fully effective no later than 60 days following the Executive's Termination Date, in a form satisfactory to the Company and counsel pursuant to which the Executive fully and completely releases the Company from any and all claims that the Executive may have against the Company or its affiliates (other than any claims that may or have arisen under this Agreement).

"Good Reason" means the occurrence of any of the events or conditions described in clauses (a) through (e) hereof, without the Executive's prior written consent:

(a)(i) any material adverse change in the Executive's status, position or responsibilities (including reporting responsibilities) from the Executive's status, position or responsibilities as in effect at any time within 180 days preceding the date of the Change in Control or at any time thereafter, or (ii) any assignment to the Executive of duties or responsibilities which are materially and adversely inconsistent with the Executive's status, position or responsibilities as in effect at any time within 180 days preceding the date of the Change in Control or at any time thereafter, in each case except in connection with the termination of the Executive's employment for Disability, Cause, as a result of the Executive's death or by the Executive other than for Good Reason;

(b) a material reduction in Executive's base salary;

(c) the imposition of a requirement that the Executive be based at any place outside a 50-mile radius from the Executive's principal place of employment immediately prior to the Change in Control, except for reasonably required travel on Company business which is not materially greater in frequency or duration than prior to the Change in Control;

(d) any material breach by the Company of any provision of this Agreement or any other agreement to which the Company and the Executive are parties; or

(e) the failure of the Company to obtain, as contemplated in Section 7, an agreement, reasonably satisfactory to the Executive, from any Successor to assume and agree to perform this Agreement.

Notwithstanding anything to the contrary in this Agreement, no termination will be deemed to be for Good Reason hereunder if it is remedied by the Company within 30 days after receipt of notice thereof given by the Executive.

"Notice of Termination" means a written notice from the Company or the Executive of the termination of the Executive's employment which indicates the specific termination provision in this Agreement relied upon and which sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated. Any such notice given by Executive of a termination for Good Reason shall be given within 90 days of the occurrence giving rise to such termination for Good Reason.

*"Person"* has the meaning as defined in Section 3(a)(9) of the Securities Exchange Act and used in Section 13(d) or 14(d) of the Securities Exchange Act, and will include any "group" as such term is used in such sections.

*"Pro Rata Bonus"* means an amount equal to the Bonus Amount multiplied by a fraction, the numerator of which is the number of days elapsed in the then fiscal year through and including the Termination Date and the denominator of which is 365.

"Securities Exchange Act" means the Securities Exchange Act of 1934, as amended.

*"Subsidiary"* means any corporation with respect to which another specified corporation has the power under ordinary circumstances to vote or direct the voting of sufficient securities to elect a majority of the directors.

*"Successor"* means a corporation or other entity acquiring all or substantially all the assets and business of the Company, whether by operation of law, by assignment or otherwise.

*"Termination Date"* means (a) in the case of the Executive's death, the Executive's date of death, (b) in the case of the termination of the Executive's employment with the Company by the Executive for Good Reason, five days after the date the Notice of Termination is received by the Company, and (c) in all other cases, the date specified in the Notice of Termination; provided that if the Executive's employment is terminated by the Company for Cause or due to Disability, the date specified in the Notice of Termination will be at least 30 days after the date the Notice of Termination is given to the Executive.

## **SECTION 2.** Term of Agreement.

The term of this Agreement (the "**Term**") will commence on the date of this Agreement, and will continue in effect until December 31, 2014; provided that on December 31, 2014 and each anniversary of such date thereafter, the Term shall automatically be extended for one additional year unless, not later than October 1 immediately preceding such automatic extension, the Company or the Executive shall have given notice not to extend the Term; and further provided that in the event a Change in Control occurs during the Term, the Term will be extended to the date 24 months after the date of the occurrence of such Change in Control.

Notwithstanding the foregoing and subject to Section 3.2, the Term shall be deemed to have immediately expired without any further action and this Agreement will immediately terminate and be of no further effect if any of the following events occurs prior to a Change in Control:

(a) the Executive's employment with the Company is terminated (whether by the Company or the Executive) for any reason;

(b) the Executive's employment is not terminated but there is a change in his or her status, position or responsibilities (including reporting responsibilities) from that which applied to Executive on the date of this Agreement; or

(c) the Executive reaches the mandatory retirement age applicable to the Company's executive officers under any stated policy of the Company, as may be adopted and revised from time to time by the Board.

### **SECTION 3.** Termination of Employment.

3.1 If, during the Term, the Executive's employment with the Company is terminated within 12 months following a Change in Control, the Executive will be entitled to the following compensation and benefits:

(a) If Executive's employment with the Company is terminated (i) by the Company for Cause or Disability, (ii) by reason of the Executive's death or (iii) by the Executive other than for Good Reason, the Company will pay to the Executive the Accrued Compensation and, if such termination is other than by the Company for Cause, a Pro Rata Bonus, such amount will be paid in a single lump sum cash payment by the Company to the Executive within five days after the Termination Date.

(b) If the Executive's employment with the Company is terminated (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), the Executive will be entitled to the following:

(i) the Company will pay the Executive all Accrued Compensation and a Pro Rata Bonus, such amounts will be paid in a single lump sum cash payment by the Company to the Executive within five days after the Termination Date;

(ii) subject to Section 18, if applicable, and subject to the Executive providing the Company with (and not revoking) a Full Release (taking into account any applicable period for revocation), the Company will pay the Executive as severance pay, and in lieu of any further compensation for periods subsequent to the Termination Date, in a single payment an amount in cash equal to:

(i) two (2) times the sum of (A) the Base Salary Amount and (B) the Bonus Amount, plus

(ii) the estimated premium cost to the Company of the provision of continued life insurance and disability benefits for the Executive for 18 months following the Termination Date, as determined by the Company in its sole discretion,

which amount will be paid in a single lump sum cash payment by the Company to the Executive on the 60th day following the Termination Date;

(iii) subject to Section 18, if applicable, and subject to the Executive providing the Company with (and not revoking) a Full Release (taking into account any applicable period for revocation), and complying with his or her obligations under Section 6, the Company will pay the cost of medical, dental and vision continuation coverage under COBRA for the Executive and any eligible dependents that were covered under the Company's health care plans immediately prior to the Termination Date, for a period of up to 18 months following the Termination Date (the "**Continuation Period**"), subject to the Executive's timely election and continuation of such coverage (the "**COBRA Benefit**"). Notwithstanding the foregoing, if the Company determines, in its sole discretion, that it cannot provide the COBRA Benefit without a substantial risk of violating applicable law (including the Patient Protection and Affordable Care Act), the Company instead shall pay to the Executive, on the first day of each calendar month, a fully taxable cash payment equal to the applicable COBRA premiums for that month (including premiums for the Executive and the Executive's eligible dependents who have elected and remain enrolled in such COBRA coverage), subject to applicable tax withholdings (such amount, the "**Special Cash Payment**"), for the remainder of the Continuation Period. Executive may, but is not obligated to, use such Special Cash Payments toward the cost of COBRA premiums. This Section 3.1(b)(iii) will not be interpreted so as to limit any benefits to which the Executive or the Executive's dependents or beneficiaries may be entitled under any of the Company's employee benefit plans, programs or practices following the Executive's termination of employment;

(iv) the Company shall provide the Executive with reasonable outplacement services suitable to the Executive's position for a period of 12 months or, if earlier, until the first acceptance by the Executive of an offer of employment; and

(v) such other acceleration of vesting and other benefits provided in other Company plans or agreements regarding options to purchase Company stock, restricted stock, deferral of stock or other equity compensation awards granted to or otherwise applicable to Executive.

(c) To the extent necessary to comply with Code Section 409A, any such payment, reimbursements or in-kind benefits to be paid or provided to the Executive under Section 3.1(b)(iii) and/or Section 3.1(b)(iv), shall be paid or provided as soon as practical following submission by the Executive of a reimbursement request but no later than the end of the calendar year following the calendar year in which such cost is incurred and no benefit will be paid or provided if the Executive incurs such cost after the end of the second calendar year following the calendar year in which the Termination Date occurs.

(d) The Executive will not be required to mitigate the amount of any payment provided for in this Agreement by seeking other employment or otherwise, and no such payment will be offset or reduced by the amount of any compensation or benefits provided to the Executive in any subsequent employment, except as specifically provided in Section 3.1(b)(iii) and 3.1(b)(iv).

3.2 Notwithstanding anything in this Agreement to the contrary, if, within the 30 days immediately preceding a Change in Control, (i) the Executive's employment is terminated (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), or (ii) (A) there is a material adverse change in the Executive's status, position or responsibilities (including reporting responsibilities) from that which applied to Executive on the date of this Agreement, and (B) the Executive's employment with the Company is subsequently terminated within 24 months following a Change in Control (whether by the Company or the Executive) for any reason other than as specified in Section 3.1(a), the Executive shall be entitled to receive the benefits provided in Section 3.1(b).

3.3 Except as otherwise noted herein, the compensation to be paid to the Executive pursuant to Sections 3.1(a), 3.1(b)(i) and 3.1(b)(ii) of this Agreement (whether by reason of Section 3.1(a), Section 3.1(b) or Section 3.2) will be in lieu of any similar severance or termination compensation (i.e., compensation based directly on the Executive's annual salary or annual salary and bonus) to which the Executive may be entitled under any other Company severance or termination agreement, plan, program, policy, practice or arrangement.

### **SECTION 4.** Notice of Termination.

Following a Change in Control, any purported termination of the Executive's employment by the Company will be communicated by a Notice of Termination to the Executive. For purposes of this Agreement, no such purported termination will be effective without such Notice of Termination.

#### SECTION 5. Excise Tax Adjustments.

5.1 In the event Executive becomes entitled to receive the benefits provided pursuant to Sections 3.1(b) or 3.2 herein, and the Company determines that such benefits (the "**Total Payments**") will be subject to the tax (the "**Excise Tax**") imposed by Section 4999 of the Code, or any similar tax that may hereafter be imposed, the Company shall compute the "**Net After-Tax Amount**," and the "**Reduced Amount**," and shall adjust the Total Payments as described below. The Net After-Tax Amount shall mean the present value of all amounts payable to the Executive hereunder, net of all federal income, excise and employment taxes imposed on the Executive by reason of such payments. The Reduced Amount shall mean the largest aggregate amount of the Total Payments that if paid to the Executive would result in the Executive receiving a Net After-Tax Amount that is equal to or greater than the Net After-Tax Amount that the Executive would have received if the Total Payments had been made. If the Company determines that there is a Reduced Amount, the Total Payments will be reduced to the Reduced Amount. With respect to any such reduction, payments and benefits will be reduced in the following order: first against the latest scheduled cash payments (if necessary, to zero), then against any current cash payments and benefits (other than equity or equity derivative related payments).

5.2 For purposes of determining whether the Total Payments will be subject to the Excise Tax and the amounts of such Excise Tax and for purposes of determining the Reduced Amount and the Net After-Tax Amount:

(a) Any other payments or benefits received or to be received by the Executive in connection with a Change in Control of the Company or the Executive's termination of employment (whether pursuant to the terms of this Agreement or any other plan, arrangement, or agreement with the Company, or with any individual, entity, or group of individuals or entities (individually and collectively referred to in this subsection (a) as "**Persons**") whose actions result in a change in control of the Company or any Person affiliated with the Company or such Persons) shall be treated as "**parachute payments**" within the meaning of Section 280G(b)(2) of the Code, and all "**excess parachute payments**" within the meaning of Section 280G(b)(1) of the Code shall be treated as subject to the Excise Tax, unless in the opinion of a tax advisor selected by the Company and reasonably acceptable to the Executive ("**Tax Counsel**"), such other payments or benefits (in whole or in part) should be treated by the courts as representing reasonable compensation for services actually rendered (within the meaning of Section 280G(b)(4)(B) of the Code), or otherwise not subject to the Excise Tax;

(b) The amount of the Total Payments that shall be treated as subject to the Excise Tax shall be equal to the lesser of (i) the total amount of the Total Payments; or (ii) the amount of excess parachute payments within the meaning of Section 280G(b)(1) of the Code (after applying clause (a) above);

(c) In the event that the Executive disputes any calculation or determination made by the Company, the matter shall be determined by Tax Counsel, the fees and expenses of which shall be borne solely by the Company; and

(d) The Executive shall be deemed to pay federal income taxes at the highest marginal rate of federal income taxation in the calendar year in which the Total Payments are to be made or commenced, as applicable, and state and local income taxes at the highest marginal rate of taxation in the state and locality of the Executive's residence on the effective date of employment, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes, taking into account the reduction in itemized deduction under Section 68 of the Code.

# SECTION 6. Covenants of the Executive.

During the Continuation Period following any Change in Control pursuant to which the Executive receives the benefits pursuant to Section 3.1(b)(iii), the Executive covenants and agrees as follows:

(a) the Executive agrees to comply with his or her obligations under the any Inventions, Copyright and Confidentiality Agreement that he or she entered into with the Company; and

(b) the Executive acknowledges that the Executive has knowledge of confidential and proprietary information concerning the current salary, benefits, skills, and capabilities of Company employees and that it would be improper for the Executive to use such Company proprietary information in any manner adverse to the Company's interests. The Executive agrees that he or she will not recruit or solicit for employment, directly or indirectly, any employee of the Company during the Continuation Period.

## SECTION 7. Successors; Binding Agreement.

This Agreement will be binding upon and will inure to the benefit of the Company and its Successors, and the Company will require any Successors to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place. Neither this Agreement nor any right or interest hereunder will be assignable or transferable by the Executive or by the Executive's beneficiaries or legal representatives, except by will or by the laws of descent and distribution. This Agreement will inure to the benefit of and be enforceable by the Executive's legal representatives.

### SECTION 8. Fees and Expenses.

The Company will pay as they become due all legal fees and related expenses (including the costs of experts) incurred by the Executive, in good faith, in (a) contesting or disputing, any such termination of employment and (b) seeking to obtain or enforce any right or benefit provided by this Agreement or by any other plan or arrangement maintained by the Company under which the Executive is or may be entitled to receive benefits. Any such reimbursements under this Section 8 shall be made as soon as practicable following submission of a reimbursement request, but no later than the end of the year following the year during which the underlying expense was incurred. If the dispute is resolved by a final decision of an arbitrator pursuant to Section 15 in the favor of the Company, the Executive shall reimburse the Company for all such legal fees and related expenses (including costs of experts) paid by the Company on behalf of the Executive.

# **SECTION 9.** Notice.

For the purposes of this Agreement, notices and all other communications provided for in the Agreement (including the Notice of Termination) will be in writing and will be deemed to have been duly given when personally delivered or sent by certified mail, return receipt requested, postage prepaid, addressed to the respective addresses last given by each party to the other, provided that all notices to the Company will be directed to the attention of the Board with a copy to the Secretary of the Company. All notices and communications will be deemed to have been received on the date of delivery thereof or on the third business day after the mailing thereof, except that notice of change of address will be effective only upon receipt.

#### **SECTION 10.** Dispute Concerning Termination.

If prior to the Date of Termination (as determined without regard to this Section 10), the party receiving the Notice of Termination notifies the other party that a dispute exists concerning the termination, the Date of Termination shall be extended until the earlier of (i) the date on which the Term ends or (ii) the date on which the dispute is finally resolved, either by mutual written agreement of the parties or by a final judgment, order or decree of an arbitrator or a court of competent jurisdiction (which is not appealable or with respect to which the time for appeal therefrom has expired and no appeal has been perfected); provided, however, that the Date of Termination shall be extended by a notice of dispute given by the Executive only if such notice is given in good faith and the Executive pursues the resolution of such dispute with reasonable diligence.

#### **SECTION 11.** Compensation During Dispute.

If a purported termination occurs following a Change in Control and during the Term and the Date of Termination is extended in accordance with Section 10 hereof, the Company shall continue to pay the Executive the full compensation in effect when the notice giving rise to the dispute was given (including, but not limited to, salary) and continue the Executive as a participant in all compensation, benefit and insurance plans in which the Executive was participating when the Notice of Termination was given, until the Date of Termination, as determined in accordance with Section 10 hereof. Amounts paid under this Section 11 are in addition to all other amounts due under this Agreement and shall not be offset against or reduce any other amounts due under this Agreement or otherwise.

## SECTION 12. Nonexclusivity of Rights.

Nothing in this Agreement will prevent or limit the Executive's continuing or future participation in any benefit, bonus, incentive or other plan or program provided by the Company for which the Executive may qualify, nor will anything herein limit or reduce such rights as the Executive may have under any other agreements with the Company (except for any severance or termination provision included in any Employment Agreement covering the Executive, which in circumstances under which amounts become payable under Section 3.1(b) hereof shall be deemed superseded completely by this Agreement and of no further force and effect). Amounts which are vested benefits or which the Executive is otherwise entitled to receive under any plan or program of the Company will be payable in accordance with such plan or program, except as specifically modified by this Agreement.

## SECTION 13. No Set-Off.

The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder will not be affected by any circumstances, including any right of set-off, counterclaim, recoupment, defense or other right which the Company may have against the Executive or others.

## **SECTION 14.** Miscellaneous.

No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing and signed by the Executive and the Company. No waiver by either party hereto at any time of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party will be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreement or representation, oral or otherwise, express or implied, with respect to the subject matter hereof has been made by either party which is not expressly set forth in this Agreement.

### **SECTION 15.** Governing Law and Binding Arbitration.

This Agreement will be governed by and construed and enforced in accordance with the laws of the State of Delaware without giving effect to the conflict of laws principles thereof. All disputes relating to this Agreement, including its enforceability, shall be resolved by final and binding arbitration before an arbitrator appointed by the Judicial Arbitration and Mediation Service (**JAMS**), with the arbitration to be held in San Diego, California. Judgment upon the award may be entered in any court having jurisdiction thereof.

#### SECTION 16. Severability.

The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the other provisions hereof.

## **SECTION 17.** Entire Agreement.

This Agreement constitutes the entire agreement between the parties hereto and supersedes all prior agreements, if any, understandings and arrangements, oral or written, between the parties hereto with respect to severance protection in connection with a Change in Control.

## SECTION 18. Section 409A.

18.1 Notwithstanding any provision to the contrary in this Agreement, the Company shall delay the commencement of payments or benefits coverage to which the Executive would otherwise become entitled under the Agreement in connection with his or her termination of employment until the earlier of (i) the expiration of the six-month period measured from the date of the Executive's **"separation from service**" with the Company (as such term is defined in Treasury Regulations issued under Section 409A of the Code) or (ii) the date of the Executive's death, if and only if the Company in good faith determines that the Executive is a **"specified employee**" within the meaning of that term under Code Section 409A(a)(2)(B) at the time of such separation from service and that such delayed commencement is otherwise required in order to avoid a prohibited distribution under Section 409A(a)(2) of

the Code. Upon the expiration of the applicable Code Section 409A(a)(2) deferral period, all payments and benefits deferred pursuant to this Section 18 (whether they would have otherwise been payable in a single sum or in installments in the absence of such deferral) shall be paid or reimbursed to the Executive in a lump sum with interest at the prime rate as published in <u>The Wall Street Journal</u> on the first business day following the end of the deferral period, and any remaining payments and benefits due under the Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein.

18.2 The provisions of this Agreement which require commencement of payments or benefits coverage subject to Section 409A upon a termination of employment shall be interpreted to require that the Executive have a "**separation from service**" with the Company (as such term is defined in Treasury Regulations issued under Code Section 409A).

18.3 With regard to any provision herein that provides for the reimbursement of costs and expenses or in-kind benefits, except as permitted by Code Section 409A, (i) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (ii) the amount of expense eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year, <u>provided</u> that the foregoing clause (ii) shall not be violated with regard to expenses reimbursed under any arrangement covered by Section 105(b) of the Code solely because such expenses are subject to a limit related to the period the arrangement is in effect and (iii) such payments shall be paid or provided as soon as practical following submission by the Executive of a reimbursement request but no later than the end of the calendar year following the calendar year in which such expense is incurred.

18.4 For purposes of Code Section 409A, Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. In no event may Executive, directly or indirectly, designate the calendar year of any payment to be made under this Agreement that is considered nonqualified deferred compensation.

18.5 The provisions of this Section 18 are intended to assure that any benefits provided to Executive hereunder shall comply with Code Section 409A and this Agreement shall be interpreted consistent with such section in all respects.

IN WITNESS WHEREOF, the undersigned have executed the above agreement as of the date set forth first above.

MEDICINOVA, INC., A Delaware Corporation

By: /s/ Yuichi Iwaki Name: Yuichi Iwaki

Title: President and CEO

EXECUTIVE

/s/ Geoffrey O'Brien Geoffrey O'Brien

## MEDICINOVA, INC.

# Certification of the Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for the Period Ended June 30, 2014

I, Yuichi Iwaki, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended June 30, 2014 of MediciNova, Inc.;

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(s) 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(s) 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: August 13, 2014

By:

/s/ YUICHI IWAKI

Yuichi Iwaki, M.D., Ph.D. President and Chief Executive Officer (Principal Executive Officer)

## MEDICINOVA, INC.

# Certification of the Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for the Period Ended June 30, 2014

I, Esther van den Boom, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended June 30, 2014 of MediciNova, Inc.;

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(s) 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(s) 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: August 13, 2014

By:

/s/ Esther van den Boom Esther van den Boom Chief Financial Officer (Principal Financial Officer)

# CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350 (SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002)

In connection with the accompanying Quarterly Report on Form 10-Q of MediciNova, Inc. (the "Company") for the period ended June 30, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Yuichi Iwaki, as President and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to 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 presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 13, 2014

By:

/s/ YUICHI IWAKI Yuichi Iwaki, M.D., Ph.D. President and Chief Executive Officer (Principal Executive Officer)

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. Section 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and such certification is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing. A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

# CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350 (SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002)

In connection with the accompanying Quarterly Report on Form 10-Q of MediciNova, Inc. (the "Company") for the period ended June 30, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Esther van den Boom, as Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to 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 presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 13, 2014

By: /s/ Esther van den Boom Esther van den Boom Chief Financial Officer (Principal Financial Officer)

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. Section 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and such certification is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing. A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.