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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

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**FORM 10-Q**

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- (Mark One)
- QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
FOR THE QUARTERLY PERIOD ENDED **March 31, 2013**
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
FOR THE TRANSITION PERIOD FROM \_\_\_\_\_ TO \_\_\_\_\_

Commission file number: 001-33185

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**MEDICINOVA, INC.**

(Exact name of registrant as specified in its charter)

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**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)

**(858) 373-1500**  
(Registrant's Telephone Number, Including Area Code)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§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  No

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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input checked="" type="checkbox"/>

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

As of May 7, 2013, the registrant had 19,665,581 shares of Common Stock (\$0.001 par value) outstanding.

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**MEDICINOVA, INC.**  
**(a development stage company)**

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## PART I. FINANCIAL INFORMATION

## ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS.

MEDICINOVA, INC.  
(a development stage company)

## CONSOLIDATED BALANCE SHEETS

	March 31 2013 (Unaudited)	December 31, 2012
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 3,029,064	\$ 4,010,530
Prepaid expenses and other current assets	683,582	411,592
Total current assets	3,712,646	4,422,122
Goodwill	9,600,241	9,600,241
In-process research and development	4,800,000	4,800,000
Investment in joint venture	662,920	667,204
Property and equipment, net	69,906	78,474
Total assets	<u>\$ 18,845,713</u>	<u>\$ 19,568,041</u>
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities:		
Accounts payable	\$ 269,858	\$ 491,853
Accrued expenses	431,959	314,652
Accrued compensation and related expenses	246,333	228,124
Current deferred revenue	—	3,163
Total current liabilities	948,150	1,037,792
Deferred tax liability	1,956,000	1,956,000
Long-term deferred revenue	1,694,163	1,694,257
Total liabilities	4,598,313	4,688,049
Stockholders' equity:		
Preferred stock, \$0.01 par value; 3,000,000 shares authorized at March 31, 2013 and December 31, 2012 ; 220,000 shares issued at March 31, 2013 and December 31, 2012	2,200	2,200
Common stock, \$0.001 par value; 100,000,000 shares authorized at March 31, 2013 and December 31, 2012 ; 18,260,569 and 17,407,311 shares issued at March 31, 2013 and December 31, 2012, respectively, and 18,260,569 and 17,403,125 shares outstanding at March 31, 2013 and December 31, 2012, respectively	18,261	17,407
Additional paid-in capital	314,079,009	312,293,225
Accumulated other comprehensive loss	(74,870)	(67,957)
Treasury stock, at cost; 0 shares at March 31, 2013 and 4,186 shares at December 31, 2012	(1,124,389)	(1,131,086)
Deficit accumulated during the development stage	(298,652,811)	(296,233,797)
Total stockholders' equity	14,247,400	14,879,992
Total liabilities and stockholders' equity	<u>\$ 18,845,713</u>	<u>\$ 19,568,041</u>

See accompanying notes.

**MEDICINOVA, INC.**  
**(a development stage company)**  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
**(Unaudited)**

	Three months ended March 31,		Period from September 26, 2000 (inception) to March 31, 2013
	2013	2012	2013
Revenues	\$ 3,257	\$ 191,174	\$ 2,364,064
Operating expenses:			
Cost of revenues	—	—	1,258,421
Research and development	695,972	1,878,461	167,750,627
General and administrative	1,724,579	2,185,972	113,981,947
Total operating expenses	2,420,551	4,064,433	282,990,995
Operating loss	(2,417,294)	(3,873,259)	(280,626,931)
Impairment charge on investment securities	—	—	(1,735,212)
Other expense	(4,433)	(4,966)	(393,663)
Interest expense	—	—	(3,605,818)
Other income	1,468	11,002	19,146,651
Loss before income taxes	(2,420,259)	(3,867,223)	(267,214,973)
Income taxes	1,245	—	(74,716)
Net loss	(2,419,014)	(3,867,223)	(267,289,689)
Accretion to redemption value of redeemable convertible preferred stock	—	—	(98,445)
Deemed dividend resulting from beneficial conversion feature on Series C redeemable convertible preferred stock	—	—	(31,264,677)
Net loss applicable to common stockholders	<u>\$ (2,419,014)</u>	<u>\$ (3,867,223)</u>	<u>\$ (298,652,811)</u>
Basic and diluted net loss per common share	\$ (0.14)	\$ (0.24)	
Shares used to compute basic and diluted net loss per common share	17,691,266	16,088,015	
Net loss applicable to common stockholders	\$ (2,419,014)	\$ (3,867,223)	\$ (298,652,811)
Other comprehensive loss, net of tax:			
Foreign currency translation adjustments	(6,913)	(6,788)	(74,870)
Comprehensive loss	<u>\$ (2,425,927)</u>	<u>\$ (3,874,011)</u>	<u>\$ (298,727,681)</u>

See accompanying notes.

**MEDICINOVA, INC.**  
**(a development stage company)**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**(Unaudited)**

	Three months ended March 31,		Period from September 26, 2000 (inception) to March 31, 2013
	2013	2012	
<b>Operating activities:</b>			
Net loss	\$ (2,419,014)	\$ (3,867,223)	\$ (267,289,689)
Adjustments to reconcile net loss to net cash used in operating activities:			
Non-cash stock-based compensation	157,700	927,291	50,548,631
Amortization of Kissei upfront payment	(3,257)	(191,174)	(805,837)
Depreciation and amortization	33,567	8,944	2,048,519
Amortization of premium/discount on investment securities, convertible debt, debt discount and issuance costs	—	—	(1,099,365)
Impairment charge, net on investment securities and ARS Put	—	—	1,735,212
(Gain)/loss on disposal of assets	(4,800)	—	6,660
Impairment of sublease	—	—	35,259
Changes in operating assets and liabilities:			
Prepaid expenses and other assets	(296,989)	(183,843)	(607,653)
Accounts payable, income tax payable, accrued expenses and deferred rent	(107,317)	(88,348)	437,717
Accrued compensation and related expenses	18,209	(32,794)	150,192
Restricted assets	—	—	5,982
Deferred Revenue	—	—	2,500,000
<b>Net cash used in operating activities</b>	<b>(2,621,901)</b>	<b>(3,427,147)</b>	<b>(212,334,372)</b>
<b>Investing activities:</b>			
Cash paid for acquired business, net of acquired cash	—	—	(2,829,785)
Purchases of investment securities	—	—	(377,205,766)
Maturities or sales of investment securities	—	—	377,918,240
Acquisition of property and equipment	—	(8,024)	(2,360,968)
Investment in joint venture	—	(680,000)	(680,000)
Proceeds from sales of property and equipment	4,800	—	261,645
<b>Net cash provided by (used in) investing activities</b>	<b>4,800</b>	<b>(688,024)</b>	<b>(4,896,634)</b>
<b>Financing activities:</b>			
Proceeds from issuance of common stock and units, net of issuance costs	1,628,938	—	134,294,163
Proceeds from issuance of convertible preferred stock, net of issuance costs	—	—	85,572,825
Proceeds from ARS loan	—	—	17,605,485
Net proceeds from debt	—	—	14,670,000
Proceeds from conversion of convertible notes	—	—	1,881,253
Purchase of treasury stock, net of employee stock purchases	6,697	27,889	(1,158,171)
Repayments of debt	—	—	(15,000,000)
Repayments of ARS loan	—	—	(17,605,485)
<b>Net cash provided by financing activities</b>	<b>1,635,635</b>	<b>27,889</b>	<b>220,260,070</b>
<b>Net increase/ (decrease) in cash and cash equivalents</b>	<b>(981,466)</b>	<b>(4,087,282)</b>	<b>3,029,064</b>
Cash and cash equivalents, beginning of period	4,010,530	15,093,124	—
<b>Cash and cash equivalents, end of period</b>	<b>\$ 3,029,064</b>	<b>\$ 11,005,842</b>	<b>\$ 3,029,064</b>
<b>Supplemental disclosure of investing and financing activities:</b>			
Proceeds from Issuance of warrants	\$ —	\$ —	\$ 2,882,258
Conversion of convertible preferred stock into common stock upon initial public offering	\$ —	\$ —	\$ 43,515,677
Restricted assets, cash unrestricted upon conversion of convertible notes	\$ —	\$ —	\$ 1,881,815
<b>Supplemental disclosures of cash flow information:</b>			
Income taxes paid	\$ 2,745	\$ 5,134	\$ 72,346
Interest paid	\$ —	\$ —	\$ 2,487,343

See accompanying notes.

**MEDICINOVA, INC.**  
**(a development stage company)**  
**Notes to Consolidated Financial Statements**  
**(Unaudited)**

**1. Interim Financial Information**

***The Company***

We were incorporated in the state of Delaware in September 2000. We are a development stage biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of serious diseases with unmet medical needs with a specific focus on the U.S. market. We are currently focusing our development activities on MN-166, an ibudilast-based drug candidate for the treatment of neurological disorders, and obtaining additional funding to advance clinical trial development of MN-221, a novel, highly selective  $\beta_2$ -adrenergic receptor agonist being developed for the treatment of acute exacerbations of asthma and chronic obstructive pulmonary disease, or COPD.

***Basis of Presentation***

We have prepared the accompanying unaudited consolidated financial statements in accordance with accounting principles generally accepted in the U.S. for interim financial information. Accordingly, they do not include all of the information and disclosures required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments of a normal recurring nature necessary for the fair presentation of our financial position, results of operations and cash flow for the interim periods presented have been included. Operating results for the three months ended March 31, 2013 are not necessarily indicative of the results that may be expected for the year ending December 31, 2013 or for any other period. For further information, see the financial statements and disclosures thereto for the year ended December 31, 2012 in our Annual Report on Form 10-K as filed with the Securities and Exchange Commission on March 28, 2013.

***Principles of Consolidation***

The consolidated financial statements include the accounts of MediciNova, Inc. and its wholly-owned subsidiaries. MediciNova, Inc. and its subsidiaries are collectively referred to herein as “we,” “our” or “us.”

On December 13, 2006, MediciNova (Europe) Limited, a wholly-owned subsidiary of MediciNova, Inc., was incorporated under the laws of England and Wales and established for the purpose of facilitating the clinical development of the Company’s product candidates for the European marketplace. MediciNova (Europe) Limited’s functional currency is the U.S. dollar, the reporting currency of its parent.

On January 4, 2007, MediciNova Japan, Inc., a wholly-owned subsidiary of MediciNova, Inc., was incorporated under the laws of Japan and established to strengthen business development and investor and public relations activities in Japan and other Asian countries. MediciNova Japan, Inc.’s functional currency is the Japanese yen.

On August 17, 2009, Absolute Merger, Inc., a wholly-owned subsidiary of MediciNova, Inc. was incorporated under the General Corporation Law of the State of Delaware for the purpose of facilitating the acquisition with Avigen.

All intercompany transactions and investments in our subsidiaries have been eliminated in consolidation.

***Use of Estimates***

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from these estimates.

### **Revenue Recognition and Deferred Revenue**

In October 2011, we 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, we are responsible for all costs to be incurred in the performance of these services. Certain of these research and development services were completed in 2012 and the remaining services are expected to be delivered and completed after 2013. We are recognizing the \$2.5 million payment as revenue as the research and development services are performed. The amount received from Kissei, net of the amount recorded as revenue to date, is included on the balance sheet as deferred revenue and will be recognized as revenue as we perform the remaining services. Revenue recorded in the three months ended March 31, 2013 and 2012 was approximately \$3,000 and \$191,000, respectively.

### **Concentrations and Credit Risk**

We maintain cash balances at various financial institutions and such balances commonly exceed the \$250,000 insured amount by the Federal Deposit Insurance Corporation. We also maintain money market funds at various financial institutions which are not federally insured, although they are invested primarily in U.S. government securities. We have not experienced any losses in such accounts and management believes that we do not have significant credit risk with respect to such cash and cash equivalents.

## **2. Joint Venture**

We entered into an agreement to form a joint venture company with Zhejiang Medicine Co., Ltd. and Beijing Make-Friend Medicine Technology Co., Ltd. effective September 27, 2011. The joint venture agreement provides for the joint venture company, Zhejiang Sunny Bio-Medical Co., Ltd. ("Zhejiang Sunny"), to develop and commercialize MN-221 in China. A sublicense, which will require the consent of the licensor, will be required for us to license MN-221 to Zhejiang Sunny. In accordance with the joint venture agreement, in March 2012 we paid \$680,000 for a 30% interest in Zhejiang Sunny. The other parties to the joint venture agreement provided funding for their combined 70% interest and are responsible for future funding of Zhejiang Sunny's activities. We have not entered into the sublicense of MN-221 with Zhejiang Sunny as of the date of this report. Zhejiang Sunny 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 will not have power to direct or significantly influence the actions of the entity. We therefore account for the activities of Zhejiang Sunny under the equity method whereby we absorb any loss or income generated by Zhejiang Sunny according to our percentage ownership. At March 31, 2013 we reflect a long-term asset on our consolidated balance sheet which represents our investment in Zhejiang Sunny, net of our portion of any generated loss or income.

## **3. Fair Value Measurements**

As defined in the authoritative guidance for fair value measurements and disclosures under ASC 820, fair value is based on the price that would be received to sell an asset or would be paid to transfer a liability in an orderly transaction between market participants at the measurement date. To increase the comparability and consistency of fair value measurements, ASC 820 prescribes a fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels which are described below:

- Level 1: Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities at the measurement date.
- 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.
- Level 3: Inputs are unobservable due to little or no market data availability and inputs are usually developed by management or a third-party which reflect those inputs that a market participant would use. The fair value hierarchy gives the lowest priority to Level 3 inputs.

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The following table presents our financial instruments measured at fair value on a recurring basis classified by the fair value measurements and disclosures valuation hierarchy (in thousands):

	As of March 31, 2013			
	Total	Fair Value Measurements Using		
		Level 1	Level 2	Level 3
Cash equivalents	<u>\$ 1,112</u>	<u>\$ 1,112</u>	<u>\$ —</u>	<u>\$ —</u>

  

	As of December 31, 2012			
	Total	Fair Value Measurements Using		
		Level 1	Level 2	Level 3
Cash equivalents	<u>\$ 1,720</u>	<u>\$ 1,720</u>	<u>\$ —</u>	<u>\$ —</u>

At March 31, 2013, cash equivalents (instruments with maturities of three months or less at the date of purchase) were primarily invested in money market accounts, the fair value of which is based on Level 1 criteria in which their carrying amount is a reasonable estimate of their fair value based on daily quoted market prices. At March 31, 2013 and December 31, 2012 we did not hold financial instruments measured at fair value on a non-recurring basis.

#### 4. Net Loss Per Share

Net loss per common share is presented as basic and diluted net loss per common share. Basic net loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding for the period using the treasury-stock method. For purposes of this calculation, convertible preferred stock, stock options and warrants are considered to be common stock equivalents and are only included in the calculation of diluted net loss per common share when their effect is dilutive.

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

	March 31,	
	2013	2012
Convertible preferred stock, as converted	2,200,000	2,200,000
Stock options	3,211,100	3,092,671
Warrants	3,128,686	2,998,686
Total	<u>8,539,786</u>	<u>8,291,357</u>

#### 5. Balance Sheet Details

##### *Accrued Expenses*

Accrued expenses consist of the following:

	March 31, 2013	December 31, 2012
Research and development costs	\$ 106,841	\$ 152,046
Professional services fees	168,479	68,102
Other	156,639	94,504
	<u>\$ 431,959</u>	<u>\$ 314,652</u>



## 6. Stock-Based Compensation

For the three months ended March 31, 2013 and 2012, stock-based compensation expense related to stock options and the employee stock purchase plan was approximately \$158,000 and \$927,000, respectively, and was recorded as a component of general and administrative expense (approximately \$93,000 and \$646,000, respectively) and research and development expense (approximately \$65,000 and \$281,000, respectively).

During the three months ended March 31, 2013, there were 41,377 stock options exercised from which proceeds of approximately \$102,000 were received. There were no options exercised during the three months ended March 31, 2012. As of March 31, 2013, there was \$0.8 million of unamortized compensation expense related to unvested stock option awards which is expected to be recognized over a remaining weighted-average vesting period of 0.79 years. No options were granted during the three months ended March 31, 2013 and 2012. As share-based compensation expense recognized in the accompanying consolidated statements of operations and comprehensive loss included expense related to stock option awards ultimately expected to vest, such expense should be reduced for estimated forfeitures. The authoritative guidance for compensation expense requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. As we have a small number of employees, we did not estimate any forfeitures during 2012, or during the three months ended March 31, 2013. We will adjust our stock-based compensation expense when any forfeitures occur.

The MediciNova, Inc. 2007 Employee Stock Purchase Plan, or ESPP, permits full-time employees to purchase our common stock through payroll deductions (not to 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 three months ended March 31, 2013 and 2012, the number of shares of common stock issued under the ESPP were 16,067 and 15,550 respectively. Shares of common stock available for future issuance at March 31, 2013 and 2012 were 248,511 and 269,442, respectively.

The Company uses the Black-Scholes option 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 option-pricing model for the three months ended March 31, 2013 and 2012.

	Three Months Ended March 31, 2013	Three Months Ended March 31, 2012
<b>Employee Stock Purchase Plan</b>		
Risk-free interest rate	0.18%	0.69%
Expected volatility of common stock	91.4%	77.9%
Dividend yield	0.0%	0.0%
Expected option term (in years)	0.5	0.5

## 7. Income Taxes

In accordance with the authoritative guidance for income taxes under ASC 740, a deferred tax asset or liability is determined based on the difference between the financial statements and the tax basis of assets and liabilities as measured by the enacted tax rates, which will be in effect when these differences reverse. We provide a valuation allowance against net deferred assets unless, based upon the available evidence, it is more likely than not that the deferred tax assets will be realized.

The Company recognizes the impact of a tax position in the financial statements only if that position is more likely than not of being sustained upon examination by taxing authorities, based on the technical merits of the position. Our practice is to recognize interest and/or penalties related to income tax matters in income tax expense.

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We are subject to taxation in the U.S., California and foreign jurisdictions, of which currently no years are under examination. Our tax years for 2000 and forward are subject to examination by the U.S. and state tax authorities due to the carry-forward of unutilized net operating losses and research and development credits. During each of the three months ended March 31, 2013 and 2012, income tax expense related to intercompany service income earned by our Japanese subsidiary, MediciNova Japan, Inc.

### 8. Commitments and Contingencies

#### *Legal Proceedings*

On July 8, 2011, a former employee filed a lawsuit in the Superior Court of the State of California, County of San Diego, asserting certain claims related to the Company's work environment and the employee's termination, and on December 12, 2011 the court granted our motion to compel arbitration. On January 11, 2013 we filed a motion for dismissal and for monetary sanctions. Based on our current assessment, we do not expect its outcome to have a material adverse effect on our business, financial condition or results of operations. See Note 10. "Subsequent Events" for further information.

We may become involved in various other disputes and legal proceedings which arise in the ordinary course of business. Our assessment of the likely impact of our pending litigation may change over time. An adverse result in any of these matters may occur which could harm our business and result in a material liability.

### 9. Stockholders' Equity

#### *Stock Options*

We grant stock options to our employees, officers, directors and consultants under the MediciNova, Inc. Amended and Restated 2004 Stock Incentive Plan. A summary of the changes in stock options outstanding during the three months ended March 31, 2013 is as follows:

	<u>Stock Options</u>	<u>Weighted Average Exercise Price</u>
Outstanding at December 31, 2012	3,328,981	\$ 4.92
Granted	—	—
Exercised	41,377	2.46
Cancelled	76,504	2.24
Outstanding at March 31, 2013	<u>3,211,100</u>	\$ 5.02
Exercisable at March 31, 2013	2,112,320	\$ 6.32

The aggregate intrinsic value of stock options outstanding and options exercisable at March 31, 2013 was approximately \$276,000 and \$217,000, respectively. The weighted average contractual life of options outstanding at March 31, 2013 was 6.9 years and the weighted average contractual life of exercisable options at March 31, 2013 was 5.9 years.

#### *Kissei Stock Purchase*

In October 2011, pursuant to a stock purchase agreement by and between us and Kissei Pharmaceutical Co. Ltd, or Kissei, Kissei purchased for \$7.5 million (i) an aggregate of 800,000 shares of our common stock, par value \$0.001 per share, at a price of \$2.50 per share, which approximated the fair value of our common stock at the time of the transaction, and (ii) 220,000 shares of our Series B Convertible Preferred Stock, or Series B Preferred, par value \$0.01 per share, at a price of \$25.00 per share, which approximated the fair value of our preferred stock on an as converted basis at the time of the transaction. The purchase agreement contains customary representations, warranties and covenants and a standstill agreement from Kissei that terminates if

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Kissei beneficially owns less than three percent of our outstanding voting stock. Each share of the Series B Preferred 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, and the consent of a majority of the outstanding Series B Preferred is required for certain actions of the Company.

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

On August 20, 2012, we entered into a common stock purchase agreement with Aspire Capital Fund LLC, or Aspire, pursuant to which the Company may sell to Aspire, and Aspire would be obligated to purchase, 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. Periodic sales of our common stock to Aspire are subject to certain limitations and the per share sales price is based on closing stock prices at or near each transaction date. No more than 3,231,096 shares of our common stock can be issued under this agreement, including the 363,636 shares issued to Aspire in consideration of entering into the agreement. Our net proceeds will depend on the frequency and number of shares of our common stock sold to Aspire and the per share purchase price of each transaction. We may, on any business day over term of the agreement, direct Aspire to purchase up to 50,000 shares, to a maximum of \$500,000 per business day. The purchase price shall be the lower of the lowest sale price of the Company's 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, MediciNova may 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. We initially issued 363,636 shares of our common stock to Aspire as consideration for entering into the agreement. As of March 31, 2013, the Company had completed sales to Aspire totaling 1,656,060 shares of common stock at prices ranging from \$1.60 to \$2.07 per share, generating gross proceeds of \$3.0 million. The agreement provides Aspire certain termination rights, including rights under an event of default as defined therein, under which the Company may not require and Aspire would not be obligated to purchase any shares of our common stock. The Company and Aspire may also not effect any sales under the agreement on any purchase date where the closing price of our common stock is less than \$1.00 per share.

### ***Issuance of Warrant***

On August 22, 2012, we issued a warrant in exchange for investor relations services to purchase up to 130,000 of our common shares at a price of \$1.88 per share, the closing price of our common stock on that date. The warrant contains provisions whereby the warrant becomes exercisable for specified shares of our common stock as a result of our stock achieving certain share price targets within a 15 month period beginning on August 22, 2012. The warrant expires in five years. The warrant is valued at its fair value of approximately \$100,000 on August 22, 2012, is classified as equity and as a prepaid expense, and is being amortized over the one year period beginning August 22, 2012.

## **10. Subsequent Events**

### ***At-The-Market Equity Distribution Agreement***

On April 17, 2013, we entered into an at-the-market equity distribution agreement with Macquarie Capital (USA) Inc. ("MCUSA") pursuant to which the Company may from time to time sell through MCUSA, acting as our sales agent, shares of our common stock up to an aggregate offering price of \$6 million. Unless mutually agreed otherwise, no sale of an amount of shares of our common stock may be greater than the lower of \$50,000 and 10% of the lower of the 5-day or 3-month average daily traded value of our common stock as reported by

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Bloomberg as of the date of the applicable issuance notice, and the price per share may not be less than the greater of \$1.19 or the last available closing price of a share of common stock on The Nasdaq Global Market. MCUSA will 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 may sell such shares by any method permitted by law deemed to be “at the market”. We will pay MCUSA an aggregate commission rate of 8.0% of the gross proceeds of any common stock sold through MCUSA under the 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. Our net proceeds will depend on the number of 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 the Company the right to terminate the agreement in its sole discretion upon giving five business days written notice. Between April 17, 2013 and the date of this report, we have generated net proceeds of \$2.8 million under this agreement on sales of 895,000 shares of our common stock.

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

Between August 21, 2012 and the date of this report, we have generated proceeds of \$4.3 million under the common stock purchase agreement with Aspire, including proceeds of \$1.4 million on the sale of 497,612 shares of our common stock subsequent to March 31, 2013.

### ***Legal Proceedings***

With regard to the lawsuit filed on July 8, 2011 by a former employee discussed in Note 8. “Commitments and Contingencies”, on April 30, 2013 the arbitrator dismissed this action and awarded monetary sanctions to the Company of approximately \$100,000.

## 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, 2012 included in our Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC, on March 28, 2013. 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, and 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," "can," "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, which speak only as of the date hereof. We undertake no obligation to update publicly or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law.*

### Overview and Recent Developments

We are a development stage biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of serious diseases with unmet medical needs with a commercial focus on the U.S. market. We were incorporated in Delaware in September 2000.

We have incurred significant net losses since our inception. We incurred losses of \$2.4 million for the three months ended March 31, 2013, and at March 31, 2013, from inception, our accumulated deficit was \$298.7 million, including \$50.6 million of non-cash stock-based compensation charges. We 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. As of March 31, 2013, we had available cash and cash equivalents of \$3.0 million and working capital of \$2.8 million which is sufficient to fund operations through approximately September 30, 2013.

Between August 21, 2012 and the date of this report we have generated proceeds of \$4.3 million under the common stock purchase agreement with Aspire Capital Fund LLC ("Aspire"). We have the right, subject to the terms of the common stock purchase agreement, to cause Aspire to acquire up to 3,231,096 shares for total gross proceeds not to exceed \$20 million (including the shares issued or sold to Aspire to date for \$4.3 million), subject to daily dollar limitations and subject to the maximum dollar amount we can sell from time to time under our registration statement on Form S-3. We expect to sell additional shares under this agreement. Between April 17, 2013 and the date of this report, we have generated net proceeds of \$2.8 million under the at-the-market equity distribution agreement with Macquarie Capital (USA) Inc. ("MCUSA") on sales of 895,000 shares of our common stock (see "Subsequent Event" below). We may from time to time sell through MCUSA shares of our common stock up to an aggregate offering price of \$6 million. We expect to sell additional shares under this agreement.

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We are also pursuing other opportunities to raise capital. There can be no assurances that there will be adequate financing available to us on acceptable terms, or at all. If the Company is unable to obtain additional financing, we may have to sell one or more of our programs or cease operations.

We are currently focusing our development activities on MN-166, an ibudilast-based drug candidate for the treatment of neurological disorders, and obtaining additional funding to advance clinical trial development of MN-221, a novel, highly selective  $\beta_2$ -adrenergic receptor agonist being developed for the treatment of acute exacerbations of asthma and COPD. We have decided that the funding of future MN-221 clinical trial development will be partner dependent.

Including MN-166 and MN-221, we have acquired licenses to eight compounds for the development of ten product candidates which include clinical development for the treatment of acute exacerbations of asthma, MS and other central nervous system (CNS) disorders, bronchial asthma, interstitial cystitis (IC), solid tumor cancers, generalized anxiety disorders/insomnia, preterm labor and urinary incontinence.

### ***Kissei Stock Purchase***

In October 2011, pursuant to a stock purchase agreement by and between us and Kissei Pharmaceutical Co., Ltd., or Kissei, Kissei purchased for \$7.5 million (i) an aggregate of 800,000 shares of our common stock, par value \$0.001 per share, at a price of \$2.50 per share, which approximated the fair value of our common stock at the time of the transaction, and (ii) 220,000 shares of our Series B Convertible Preferred Stock, par value \$0.01 per share, at a price of \$25.00 per share, which approximated the fair value of our preferred stock on an as converted basis at the time of the transaction. The purchase agreement contains customary representations, warranties and covenants and a standstill agreement from Kissei that terminates if Kissei beneficially owned less than three percent of our 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, and the consent of a majority of the outstanding Series B Preferred is required for certain actions of the Company.

### ***Kissei Services Agreement***

In October 2011, we entered into an agreement with Kissei to perform research and development services relating to MN-221 in exchange for a non-refundable upfront payment of \$2.5 million. We assessed the deliverables in accordance with the authoritative guidance and concluded the existence of one deliverable, which was research and development services. Under the terms of the agreement, we are responsible for all costs to be incurred in the performance of these services. As such, we are recognizing the \$2.5 million payment as revenue as the research and development services are performed. Certain of these research and development services were completed in 2012 and the remaining services are expected to be delivered and completed after 2013.

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

On August 20, 2012, we entered into a common stock purchase agreement with Aspire pursuant to which the Company may sell to Aspire, and Aspire would be obligated to purchase, 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. Periodic sales of our common stock to Aspire are subject to certain limitations and the per share sales price is based on closing stock prices at or near each transaction date. No more than 3,231,096 shares of our common stock can be issued under this agreement, including the 363,636 shares issued to Aspire in consideration of entering into the agreement. Our net proceeds will depend on the frequency and number of shares of our common stock sold to Aspire and the per share purchase price of each transaction. As of March 31, 2013, the Company had completed sales to Aspire totaling 1,656,060 shares of common stock at prices ranging from \$1.60 to \$2.07 per share, generating gross proceeds of \$3.0 million.

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Between August 21, 2012 and the date of this report, we have generated proceeds of \$4.3 million under the common stock purchase agreement with Aspire including proceeds of \$1.4 million on sales of 497,612 shares of our common stock subsequent to March 31, 2013.

### ***Lease of Corporate Headquarters***

We leased office space at our headquarters at 4350 La Jolla Village Drive, Suite 950, San Diego, California under a lease that expired on February 28, 2013. On February 27, 2013, we entered into a sublease agreement effective March 1, 2013 (the "Sublease") with Denali Advisors, LLC, the sublessor, to which Irvine Company, the master landlord, has provided its consent. The Sublease is for the Company's new headquarters located at 4275 Executive Square, Suite 650, La Jolla, California, 92037. The Sublease has a term of 4 years and 9 months and provides that the Company will pay Irvine Company a monthly base rent of \$10,699 for the premises during the first year.

### **Subsequent Event**

#### ***At-The-Market Equity Distribution Agreement***

On April 17, 2013, we entered into an at-the-market equity distribution agreement with MCUSA pursuant to which the Company may from time to time sell through MCUSA acting as a sales agent, shares of our common stock up to an aggregate offering price of \$6 million. Unless mutually agreed otherwise, no sale of an amount of shares of our common stock may be greater than the lower of \$50,000 and 10% of the lower of the 5-day or 3-month average daily traded value of our common stock as reported by Bloomberg as of the date of the applicable issuance notice, and the price per share may not be less than the greater of \$1.19 or the last available closing price of a share of common stock on The Nasdaq Global Market. MCUSA will 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 may sell such shares by any method permitted by law deemed to be "at the market". We will pay MCUSA an aggregate commission rate of 8.0% of the gross proceeds of any common stock sold through MCUSA under the sales 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. Our net proceeds will depend on the number of 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 the Company the right to terminate the agreement in its sole discretion upon giving five business days written notice. Between April 17, 2013 and the date of this report, we have generated net proceeds of \$2.8 million under this agreement on sales of 895,000 shares of our common stock.

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

In the three months ended March 31, 2013 and 2012, we recognized approximately \$3,000 and \$191,000, respectively, of revenue related to the Kissei services agreement based on the development services we performed during that period. To date through March 31, 2013 we have recognized approximately \$806,000 of Kissei services revenue, and all expenses incurred related to these services have been recorded as research and development expenses. Other than the Kissei services revenue, our revenues to date have been from development services revenues under service agreements pursuant to which we billed consulting fees and our pass-through clinical contract costs.

### **Research and Development**

Our research and development 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

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connection with the preclinical and clinical development of our product candidates. Research and development 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 and development costs are expensed as incurred.

The following table summarizes our research and development expenses for the periods indicated for each of our product development programs. To the extent that costs, including personnel costs, are not tracked to a specific product development program, such costs are included in the "Unallocated" category (in thousands):

Product Candidate	Product Development Program	Three months ended	
		March 31,	
		2013	2012
MN-166	Neurological disorders including opioid withdrawal, methamphetamine addiction, chronic MOH pain and MS	\$ 429	\$ 164
MN-221	Acute exacerbations of asthma/COPD	94	1,246
MN-001	Bronchial asthma	20	121
MN-001	Interstitial cystitis	—	30
MN-029	Solid tumors	9	41
MN-305	Generalized anxiety disorder/insomnia	—	2
MN-246	Urinary incontinence	1	2
MN-447	Thrombotic disorders	—	6
MN-462	Thrombotic disorders	—	—
Unallocated		143	266
Total research and development		<u>\$ 696</u>	<u>\$ 1,878</u>

We are currently focusing our development activities on MN-166, an ibudilast-based drug candidate for the treatment of neurological disorders, and obtaining additional funding to advance clinical trial development of MN-221, a novel, highly selective  $\beta_2$ -adrenergic receptor agonist being developed for the treatment of acute exacerbations of asthma and chronic obstructive pulmonary disease, or COPD. In February 2013 we received Fast Track designation from the FDA for MN-166, which is a process designed to facilitate development and expedite the review of drugs intended to treat serious diseases that have the potential to fill an unmet medical need. The FDA's Fast Track program emphasizes early and frequent communication between the FDA and the sponsor throughout the development process to improve product development efficiency, potentially leading to a shortened timeline to ultimate drug approval. Clinical development of MN-166 is ongoing in both methamphetamine addiction and opioid addiction with clinical trials being conducted by experts in these two areas. A Phase 1b clinical trial of MN-166 in methamphetamine dependence is near completion at UCLA. A Phase 2 outpatient clinical trial of MN-166 in methamphetamine dependence, led by investigators at UCLA, has been funded by NIDA. In opioid addiction, a second NIDA-funded clinical trial of MN-166 in prescription opioid or heroin abusers is currently ongoing with the investigators at Columbia University and the New York State Psychiatric Institute. Regarding future MN-221 development, in a meeting with the FDA in October 2012, the FDA provided a clear MN-221 development path, identified the risk/benefit profile of MN-221 as a focal point for further development and advised that a clinical outcome, such as a reduction in hospitalizations, would need to be a pivotal trial primary endpoint. We have decided that future MN-221 development will be designed according to the feedback received from the FDA and have decided that the funding of future MN-221 clinical trial development will be partner dependent. Our research and development expenses may increase in connection with new clinical trials related to MN-166 or with new clinical trials related to MN-221 should we decide to fund such activities ourselves.

We will continue to limit our expenditures on the remainder of our existing product candidates to only those activities deemed necessary to maintain our license rights or maximize the value of such product candidates



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while pursuing a variety of initiatives to monetize such product development. As a result, we expect that research and development expenses will remain low for the remainder of our existing product candidates in the foreseeable future.

### **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.

Our general and administrative expenses may increase in future periods if we are required to expand our infrastructure based on the success of our product development programs and in raising capital to support our product development programs or otherwise in connection with increased business development activities related to partnering, out-licensing or product disposition.

### **Other Income and Expense**

Other income primarily consists of interest earned on our cash and cash equivalents. Other expense primarily consists of losses from the joint venture and net foreign exchange gains and losses related to vendor invoices denominated in foreign currencies. We held no debt and had no interest expense in 2012 or in the first quarter of 2013.

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

Our management's discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with principles generally accepted in the U.S. The preparation of the consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the related disclosure of contingent liabilities. We review our estimates on an ongoing basis, including those related to our significant accruals. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates.

Our significant accounting policies and estimates are the same as those noted in our Annual Report on Form 10-K for the year ended December 31, 2012, as filed with the SEC on March 28, 2013.

### **Results of Operations**

#### ***Comparison of the Three Months Ended March 31, 2013 and 2012***

##### *Revenues*

Revenue for the three months ended March 31, 2013 was approximately \$3,000, a decrease of approximately \$188,000 when compared to approximately \$191,000 for the three months ended March 31, 2012. The decrease in revenue is due to the completion of the Phase 1b/2a COPD clinical trial (MN 221-CL-012) in 2012 for which we recorded revenue related to the development services we performed under the Kissei services agreement.

##### *Research and Development*

Research and development expenses for the three months ended March 31, 2013 were \$0.7 million, a decrease of \$1.2 million when compared to \$1.9 million for the three months ended March 31, 2012. This decrease in research and development expenses primarily related to a decrease of \$1.0 million in spending on MN-221 due to the completion of the CL-007 and CL-012 clinical trials in 2012, and a decrease in employee compensation expense including \$0.2 million related to stock based compensation.

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### *General and Administrative*

General and administrative expenses for the three months ended March 31, 2012 were \$1.7 million, a decrease of \$0.5 million when compared to \$2.2 million for the three months ended March 31, 2012. This decrease in general and administrative expenses was due primarily to a decrease in employee compensation expense including \$0.5 million related to stock-based compensation.

### *Other Expense*

Other expense for the three months ended March 31, 2013 was approximately \$4,000, as compared to approximately \$5,000 for the three months ended March 31, 2012. In the first quarter of 2013 and 2012, other expense consisted of losses from the joint venture accounted for under the equity method and net foreign exchange gains and losses related to vendor invoices denominated in foreign currencies.

### *Other Income*

Other income for the three months ended March 31, 2013 was approximately \$1,000, as compared to approximately \$11,000 for the three months ended March 31, 2012. The decrease is due to a decrease in interest income on lower cash equivalents.

## **Liquidity and Capital Resources**

We have incurred losses of \$2.4 million for the three months ended March 31, 2013, and \$11.0 million for the year ended December 31, 2012. At March 31, 2013, from inception, our accumulated deficit was \$298.7 million including \$50.6 million of non-cash stock-based compensation charges. We have used net cash of \$2.6 million and \$11.9 million to fund our operating activities for the three months ended March 31, 2013 and for the year ended December 31, 2012, respectively. Our operating losses to date have been funded primarily through the private placement of our equity securities, the public sale of our common stock, long-term debt, development agreements with partners and the exercise of founders' warrants, net of treasury stock repurchases. As of March 31, 2013, we had available cash and cash equivalents of \$3.0 million and working capital of \$2.8 million which is sufficient to fund operations through approximately September 30, 2013. These factors raise substantial doubt about the Company's ability to continue as a going concern.

In October 2011, pursuant to a stock purchase agreement by and between us and Kissei, Kissei purchased (i) an aggregate of 800,000 shares of our common stock, par value \$0.001 per share, at a price of \$2.50 per share, and (ii) 220,000 shares of our Series B Convertible Preferred Stock, par value \$0.01 per share, at a price of \$25.00 per share. In October we received gross proceeds of \$7.5 million related to this purchase agreement.

In October 2011, we entered into an agreement with Kissei to perform research and development services relating to MN-221 in exchange for a non-refundable upfront payment of \$2.5 million. We are responsible for all costs incurred and to be incurred in the performance of these services. The amount received from Kissei, net of the amount recorded as revenue to date, is included on the balance sheet as deferred revenue and will be recognized as revenue as we perform the remaining services. Revenue recorded in the three months ended March 31, 2013 and 2012 was approximately \$3,000 and \$191,000, respectively.

On August 20, 2012 we entered into a common stock purchase agreement with Aspire, pursuant to which the Company may sell to Aspire, and Aspire would be obligated to purchase, 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. Periodic sales of our common stock to Aspire are subject to certain limitations and the per share sales price is based on closing stock prices at or near each transaction date. No more than 3,231,096 shares of our common stock can be issued under this agreement, including the 363,636 shares issued to Aspire in consideration of entering into the agreement. Our net proceeds will depend on

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the frequency and number of shares of our common stock sold to Aspire and the per share purchase price of each transaction. We may, on any business day over the term of the agreement, direct Aspire to purchase up to 50,000 shares, up to a maximum of \$500,000 per business day. The purchase price shall be the lower of (i) the lowest sale price of the Company's common stock on the date of the sale, or (ii) 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 may 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. We initially issued 363,636 shares of our common stock to Aspire as consideration for entering into the agreement. As of March 31, 2013, the Company had completed sales to Aspire totaling 1,656,060 shares of common stock at prices ranging from \$1.60 to \$2.07 per share, generating gross proceeds of \$3.0 million.

The agreement with Aspire provides Aspire certain termination rights, including rights under an event of default as defined therein, under which the Company may not require and Aspire would not be obligated to purchase any shares of our common stock. The Company and Aspire may also not effect any sales under the agreement on any purchase date where the closing price of our common stock is less than \$1.00 per share. We have the right, subject to the terms of the common stock purchase agreement, to cause Aspire to purchase as of March 31, 2013 up to approximately 1.2 million additional shares for total gross proceeds not to exceed \$20 million (including the \$3.0 million sold to Aspire as of that date) subject to daily dollar limitations and subject to the maximum dollar amount we can sell from time to time under our registration statement on Form S-3. Between August 21, 2012 and the date of this report, we have generated proceeds of \$4.3 million under the common stock purchase agreement including proceeds of \$1.4 million on sales of 497,612 shares of our common stock subsequent to March 31, 2013. We expect to sell additional shares under this agreement.

On April 17, 2013, we entered into an at-the-market equity distribution agreement with MCUSA pursuant to which the Company may from time to time sell through MCUSA acting as either a sales agent or a principal, shares of our common stock up to an aggregate offering price of \$6 million. Unless mutually agreed otherwise, no sale of an amount of shares of our common stock may be greater than the lower of \$50,000 and 10% of the lower of the 5-day or 3-month average daily traded value of our common stock as reported by Bloomberg as of the date of the applicable issuance notice, and the price per share may not be less than the greater of \$1.19 or the last available closing price of a share of common stock on The Nasdaq Global Market. MCUSA will 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 may sell such shares by any method permitted by law deemed to be "at the market". We will pay MCUSA an aggregate commission rate of 8.0% of the gross proceeds of any common stock sold through MCUSA under the 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. Our net proceeds will depend on the number of shares of our common stock sold to MCUSA and the per share purchase price of each transaction. The agreement with Macquarie provides both Macquarie and the Company the right to terminate the agreement in its sole discretion upon giving five business days written notice.

Between April 17, 2013 and the date of this report, we have generated net proceeds of \$2.8 million under this agreement on sales of 895,000 shares of our common stock.

We are also pursuing other opportunities to raise capital. There can be no assurances that there will be adequate financing available to us on acceptable terms, or at all. If the Company is unable to obtain additional financing, we may have to sell one or more of our programs or cease operations.

Our future funding requirements will depend on many factors, including, but not limited to:

- progress in, and the costs of, future planned clinical trials and other research and development activities;

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- the scope, prioritization and number of our product development programs;
- our obligations under our license agreements, pursuant to which we may be required to make future milestone payments upon the achievement of various milestones related to clinical, regulatory or commercial events;
- our ability to establish and maintain strategic collaborations, including licensing and other arrangements, and to complete acquisitions of additional product candidates;
- the time and costs involved in obtaining regulatory approvals;
- the costs of securing manufacturing arrangements for clinical or commercial production of our product candidates;
- the costs associated with expanding our management, personnel, systems and facilities;
- the costs associated with any litigation;
- the costs associated with the operations or wind-down of any business we may acquire;
- the costs involved in filing, prosecuting, enforcing and defending patent claims and other intellectual property rights; and
- the costs of establishing or contracting for sales and marketing capabilities and commercialization activities if we obtain regulatory approval to market our product candidates.

### **Off-Balance Sheet Arrangements**

At March 31, 2013, 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 or other contractually narrow or limited purposes. 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 March 31, 2013 were \$3.0 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 months ended March 31, 2013.

### **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

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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.

On July 8, 2011, the former employee filed a lawsuit in the Superior Court of the State of California, County of San Diego, asserting certain claims related to the Company's work environment and the employee's termination, and on December 12, 2011 the court granted our motion to compel arbitration. On January 11, 2013 we filed a motion for dismissal and for monetary sanctions. On April 30, 2013, the arbitrator dismissed this action and awarded monetary sanctions to the Company of approximately \$100,000.

We may become involved in various other disputes and legal proceedings which arise in the ordinary course of business. While it is not possible to accurately predict or determine the outcome of these matters, an adverse result in any of these matters 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, 2012, 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, 2012 other than the addition of the following risk factor:

*The sale of additional common stock to Macquarie Capital (USA) Inc. ("MCUSA") may cause substantial dilution to our existing shareholders and/or the price of our common stock to decline.*

Pursuant to the at-the-market equity distribution agreement with MCUSA dated April, 17, 2013, we may sell additional shares of our common stock to MCUSA. Depending upon market liquidity at the time, sales of shares of our common stock under the agreement may cause the trading price of our common stock to decline and may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock to MCUSA in this offering, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

### ITEM 6. EXHIBITS.

<u>Exhibit Number</u>	<u>Description</u>
3.1(6)	Restated Certificate of Incorporation of the Registrant, as amended.
3.2(1)	Amended and Restated Bylaws of the Registrant.
3.3(5)	Certificate of Designation, Preferences and Rights of the Series B Convertible Preferred Stock.
4.1(2)	Specimen of Common Stock Certificate.
4.2(1)	Amended and Restated Registration Rights Agreement among the Registrant, its founders and the investors named therein, dated September 2, 2004.
4.3(3)	Warrant dated May 10, 2010 issued to Oxford Finance Corporation.
4.4(4)	Form of Warrant to Purchase Common Stock.

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<u>Exhibit Number</u>	<u>Description</u>
4.5(7)	Registration Rights Agreement between the Registrant and Aspire Capital Fund, LLC, dated August 20, 2012.
4.6(9)	Warrant dated August 22, 2012 issued to Redington, Inc., as amended.
4.7(8)	Registration Rights Agreement between the Registrant and Redington, Inc., dated August 22, 2012.
10.1(10)	Sublease Agreement between the Company and Denali Advisors LLC, dated February 27, 2013.
31.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for the period ended March 31, 2013.
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for the period ended March 31, 2013.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350 (Section 906 of the Sarbanes-Oxley Act of 2002).
32.2	Certification of Chief 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 March 31, 2013 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.

- 
- (1) Filed with the Registrant's Registration Statement on Form S-1 filed October 1, 2004 and incorporated herein by reference.
  - (2) Filed with the Registrant's Annual Report on Form 10-K filed February 15, 2007 and incorporated herein by reference.
  - (3) Filed with the Registrant's Current Report on Form 8-K filed May 14, 2010 and incorporated herein by reference.
  - (4) Filed with the Registrant's Current Report on Form 8-K filed March 24, 2011 and incorporated herein by reference.
  - (5) Filed with the Registrant's Current Report on Form 8-K filed September 27, 2011 and incorporated herein by reference.
  - (6) Filed with the Registrant's Quarterly Report on Form 10-Q filed August 9, 2012 and incorporated herein by reference.
  - (7) Filed with the Registrant's Current Report on Form 8-K filed August 21, 2012 and incorporated herein by reference.
  - (8) Filed with the Registrant's Current Report on Form 8-K filed August 22, 2012 and incorporated herein by reference.
  - (9) Filed with the Registrant's Quarterly Report on Form 10-Q filed November 8, 2012 and incorporated herein by reference.
  - (10) Filed with the Registrant's Current Report on Form 8-K filed March 1, 2013 and incorporated herein by reference.
- (\*) Pursuant to Rule 406T of Regulation S-T, this interactive data file is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Exchange Act of 1934, and otherwise is not subject to liability under these sections.

**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.**

Date: May 8, 2013

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/ MICHAEL GENNARO  
Michael Gennaro  
Chief Financial Officer  
(on behalf of the registrant and  
as the registrant's Principal Financial Officer)



**INDEX TO EXHIBITS**

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- (\*) Pursuant to Rule 406T of Regulation S-T, this interactive data file is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Exchange Act of 1934, and otherwise is not subject to liability under these sections.

**MEDICINOVA, INC.****Certification of the Chief Executive Officer Pursuant to  
Section 302 of the Sarbanes-Oxley Act of 2002 for the Period Ended March 31, 2013**

I, Yuichi Iwaki, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended March 31, 2013 of MediciNova, Inc. (the “Registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;

4. The Registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) evaluated the effectiveness of the Registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the Registrant’s internal control over financial reporting that occurred during the Registrant’s most recent fiscal quarter (the Registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant’s internal control over financial reporting; and

5. The Registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant’s auditors and the audit committee of the Registrant’s board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant’s ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant’s internal control over financial reporting.

Date: May 8, 2013

By: \_\_\_\_\_ /S/ YUICHI IWAKI  
 Yuichi Iwaki, M.D., Ph.D.  
 President and Chief Executive Officer  
 (Principal Executive Officer)



**CERTIFICATION OF  
CHIEF 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 March 31, 2013, 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: May 8, 2013

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  
CHIEF 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 March 31, 2013, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael Gennaro, as Vice President and 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: May 8, 2013

By: \_\_\_\_\_ /s/ MICHAEL GENNARO  
Michael Gennaro  
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.