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As filed with the U.S. Securities and Exchange Commission on September 30, 2004

Registration No. 333-

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

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

MediciNova, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**2834**	**33-0927979**
(State or other jurisdiction of incorporation or organization)	**(Primary standard industrial classification code number)**	**(IRS employer identification no.)**

4350 La Jolla Village Drive, Suite 950
San Diego, CA 92122
(858) 373-1500
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Takashi Kiyoizumi, M.D., Ph.D.
MediciNova, Inc.
President and Chief Executive Officer
4350 La Jolla Village Drive, Suite 950
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(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐ _____

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐ _____

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐ _____

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. ☐

Title of Each Class of Securities to be Registered	**Proposed Maximum Aggregate Offering Price(1)**	**Amount of Registration Fee**
Common Stock, par value $0.001 per share	$ 100,000,000	$ 12,670

(1) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the U.S. Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS (Subject to Completion)
Dated September 30, 2004.

Shares

Common Stock

We are selling shares of common stock. These shares will be offered in Japan and to investors located in jurisdictions other than the United States. We have applied to list our common stock on the Mothers Market of the Tokyo Stock Exchange. This is an initial public offering of our common stock. Prior to this offering, there has been no public market for our common stock. See "Underwriting" for a discussion of the factors considered in determining the initial public offering price. We currently estimate that the initial public offering price of our common stock will be between $ and $ per share.

Our business and an investment in our common stock involve significant risks. These risks are described under the caption " Risk Factors" beginning on page 7 of this prospectus.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	$	$
Underwriting discount and commissions	$	$
Proceeds, before expenses, to us	$	$

The underwriters also may purchase up to shares of our common stock from us at the public offering price, less the underwriting discounts and commissions, to cover over-allotments.

The underwriters expect to deliver the shares against payment in dollars through the facilities of the Japan Securities Settlement & Custody, Inc. on or about , 2005.

Daiwa Securities SMBC

The date of this prospectus is , 2005

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You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. You should assume we are offering to sell, and seeking offers to buy, the shares of common stock offered by this prospectus only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Neither we nor the underwriter have taken, or will take any action in any jurisdiction other than Japan and the United States of America that would permit a public offering of the shares or possession of the distribution of a prospectus in any jurisdiction where action for that purpose is required. No person has been authorized to give any information or to make any representation other than those contained in this prospectus, and, if given or made, such information or representation must not be relied upon as having been authorized.

PROSPECTUS SUMMARY

The information contained in this summary is qualified in its entirety by, and should be read in conjunction with, the detailed information and financial statements, including the notes thereto, appearing elsewhere in this prospectus. You should read the following summary together with the more detailed information, including "Risk Factors" and our financial statements and related notes, before making your investment decision.

Our Business

We are a specialty pharmaceutical company focused on acquiring, developing and commercializing innovative pharmaceutical products for a variety of diseases and conditions. We actively seek to identify and acquire license rights to product candidates with extensive safety and efficacy data that are in late pre-clinical or early clinical development and address large markets with significant opportunities for improved therapies. We currently have one Phase I clinical trial ongoing for a product candidate and anticipate entering into Phase II clinical trials with four other product candidates by the end of the first half of 2005.

Our development programs follow a dual pathway:

- strategic core programs; and
- partnering programs.

Our strategic core programs consist of product candidates we intend to retain the rights to through final regulatory approval in the United States and commercialize directly. Currently, our strategic core programs are focused on the urology and obstetrics/gynecology markets. These are markets in which we believe we can pursue regulatory approval and develop a marketing and sales infrastructure in the United States utilizing our own resources and without partnering with larger pharmaceutical companies. Our existing strategic core programs consist of:

- MN-221 for the treatment of premature labor, for which we intend to file an Investigational New Drug application, or IND, to permit commencement of Phase II clinical trials in the first half of 2005;
- MN-029 for the treatment of solid tumors, currently in Phase I clinical trials; and
- MN-001 for the treatment of interstitial cystitis, for which we intend to file an IND application to permit commencement of Phase II clinical trials by the end of the first quarter of 2005.

Our partnering programs consist of product candidates we intend to license to larger pharmaceutical companies after advancing them through Phase II clinical trials and with respect to which we intend to retain co-promotion rights. Our partnering programs focus on product candidates for larger markets that typically require significantly greater clinical development and commercialization resources than our strategic core programs. Our partnering programs are currently focused on asthma and anxiety and consist of:

- MN-001 for the treatment of bronchial asthma, currently anticipated to enter a Phase II clinical trial by the end of 2004; and
- MN-305 for the treatment of anxiety, for which we intend to commence a Phase II clinical trial by the end of the first quarter of 2005.

We believe that our dual pathway approach to product development will allow us:

- to significantly diversify our development risks by enabling us to acquire a larger portfolio of product candidates;
- to move more quickly into the clinical development process in the United States; and
- to generate near-term revenue opportunities through our partnering program, as well as to generate long-term sustained revenue opportunities through our strategic core programs.

To date, we have acquired license rights to four compounds. We intend to continue to build a strong product pipeline by establishing relationships with large and mid-sized North American, European and Japanese biotechnology and pharmaceutical companies. Since our inception, we have established relationships with a number of pharmaceutical companies, including Kissei Pharmaceutical, Kyorin Pharmaceutical and Mitsubishi Pharma Corporation, pursuant to which we have obtained rights to develop and market compounds. We believe the establishment of these relationships in Japan provides us with a competitive advantage in identifying and acquiring compounds from Japanese pharmaceutical companies.

We have assembled a management team with extensive experience in the pharmaceutical and biotechnology industry, including experience in pre-clinical research, drug substance and product preparation, regulatory affairs, clinical research, marketing and sales and corporate development.

Our Strategy

Our goal is to become a leader in the development and commercialization of drugs for the treatment of diseases with unmet medical needs. Key elements of our strategy are to:

- execute our dual pathway development approach;
- continue to expand our pipeline of promising product candidates;
- partner selectively with larger pharmaceutical companies to maximize the commercial potential of our product candidates; and
- continue to strengthen our management team.

Our History

We were founded in September 2000 by Takashi Kiyoizumi, M.D., Ph.D. and Yuichi Iwaki, M.D., Ph.D. as a majority-owned subsidiary of the Japanese pharmaceutical company, Tanabe Seiyaku Co., Ltd. Prior to joining our company, Dr. Kiyoizumi had been the chief executive of Tanabe Research Laboratories, USA, the San Diego-based research arm of Tanabe Seiyaku. Our operations are now completely independent of Tanabe Seiyaku, which, as of September 30, 2004, indirectly owned approximately 15% of our outstanding capital stock.

Our principal executive offices are located at 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122, and our telephone number is (858) 373-1500. Our website address is www.medicinova.com. The information on our website is not a part of this prospectus. References in this prospectus to “we,” “our,” “us” and “MediciNova” refer to MediciNova, Inc., a Delaware corporation.

We have received U.S. and Japanese trademark registration for our corporate name, MediciNova. All other trademarks and trade names referred to in this prospectus are the property of their respective owners.

Risks Affecting Our Business

Our business is subject to numerous risks, which are highlighted in the section entitled “Risk Factors” immediately following this prospectus summary. In particular, we are an early-stage company with a limited operating history and limited revenues derived from operations. We have incurred significant losses since our inception. For the year ended December 31, 2003, we had a net loss of $6.2 million. For the six months ended June 30, 2004, we had a net loss of $26.7 million, including a $19.4 million non-cash stock-based compensation charge. As of June 30, 2004, we had an accumulated deficit of $41.8 million. We anticipate that these losses will continue for the next several years. We do not have any products that are approved for sale. If we are unsuccessful in developing and gaining regulatory approval for new product candidates, we may not be able to sustain our operations and may never become profitable. We may need additional financing to execute our strategy to acquire, develop or commercialize our current and future product candidates.

The Offering

Common stock offered by MediciNova, Inc.	shares to be offered by means of a public offering in Japan.
Lead underwriter	Daiwa Securities SMBC Co. Ltd.
Over-allotment Option	We have granted the underwriters an option, exercisable until , 2005, to purchase up to additional shares, solely to cover over-allotments, if any.
Offering Price	$ per share.
Listing	We intend to apply to the Mothers Market of the Tokyo Stock Exchange for listing of our common stock.
Common stock to be outstanding after this offering	shares.
Use of Proceeds	We expect to use the net proceeds of this offering to continue the development and prepare for the commercialization of our product candidates and for other working capital and general corporate purposes. In addition, we may use some of the net proceeds to in-license additional product candidates. See “Use of Proceeds.”
Lock-Up Agreements	We, our officers, directors, existing stockholders, option holders and warrantholders have agreed with the underwriters not to dispose of or hedge our common stock for a period of 180 days after the listing of our common stock on the Mothers Market, subject to limited exceptions described in “Underwriting.”
Payment and Settlement	The underwriters expect to deliver certificates representing the shares against payment in dollars through the facilities of the Japan Securities Settlement & Custody, Inc. on or about , 2005.
Expected Timetable	We expect the timetable for the offering to be as follows (dates subject to change): , 2005: Commencement of bookbuilding of the offering in Japan. , 2005 to , 2005: Pricing of the offering. First to third business day after pricing date: Japanese subscription period. Seventh business day after pricing date: Listing of the common stock on the Mothers Market of the Tokyo Stock Exchange and delivery of shares.

The number of shares of common stock to be outstanding immediately after this offering is based on 67,282,856 shares of common stock outstanding as of September 30, 2004. This number excludes:

- 1,510,000 shares of our common stock issuable upon exercise of options outstanding under our 2000 General Stock Incentive Plan as of September 30, 2004 at an exercise price of $1.00 per share;
- shares available for future issuance under our 2004 Stock Incentive Plan following the date of this offering; and
- 13,356,572 shares of our common stock issuable upon exercise of Stock Purchase Warrants, at a weighted average exercise price of $0.13 per share.

Unless otherwise stated, information in this prospectus is based on the following assumptions:

- the conversion of all outstanding shares of our convertible preferred stock into 66,782,856 shares of common stock immediately prior to the closing of this offering;
- the adoption of our restated certificate of incorporation and amended and restated bylaws to be effective upon the closing of this offering; and
- no exercise of the underwriters' over-allotment option.

Summary Financial Data

The following table sets forth certain of our financial data. We derived the summary financial data for the years ended December 31, 2001, 2002 and 2003 from our audited financial statements included elsewhere in this prospectus. We have also included data for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 from our unaudited financial statements included elsewhere in this prospectus and data for the period from September 26, 2000 (inception) to December 31, 2000 from our audited financial statements not included in this prospectus. You should read this data together with our financial statements and related notes and the information under "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The pro forma information contained in the balance sheet data gives effect to the issuance of 27,667,856 shares of common stock upon the conversion of the Series C preferred stock sold in a recent private financing. The pro forma as adjusted balance sheet data reflects the pro forma balance sheet data at June 30, 2004 adjusted for the sale of shares of our common stock in this offering at the initial offering price to the public of $ per share, after deducting the estimated underwriting discounts, commissions and offering expenses payable by us and the automatic conversion of all preferred stock into common stock upon the completion of this offering.

	Period from September 26, 2000 (inception) to December 31, 2000	Years ended December 31,			Six months ended June 30,		Period from September 26, 2000 (inception) to June 30, 2004
		2001	2002	2003	2003	2004	
	(in thousands, except share and per share data)						
Statements of Operations Data:							
Revenues	$ —	$ —	$ —	$ —	$ —	$ 187	$ 187
Cost of revenues	—	—	—	—	—	166	166
Gross profit	—	—	—	—	—	21	21
Operating expenses:							
Research and development	272	952	5,551	4,723	2,229	6,108	17,606
General and administrative	—	1,063	1,462	1,538	707	1,224	5,286
Amortization of employee stock-based compensation:							
Research and development	—	—	—	—	—	14	14
General and administration	—	—	—	—	—	10	10
Stock-based compensation related to founders' warrants	—	—	—	—	—	19,406	19,406
Total operating expenses	272	2,015	7,013	6,261	2,936	26,762	42,322
Operating loss	(272)	(2,015)	(7,013)	(6,261)	(2,936)	(26,741)	(42,301)
Other income, net	71	220	82	52	24	44	468
Net loss	$ (201)	$ (1,795)	$ (6,931)	$ (6,209)	$ (2,912)	$ (26,697)	$ (41,833)
Basic and diluted net loss per share[(1)]	$ (0.40)	$ (3.59)	$ (13.86)	$ (12.42)	$ (5.82)	$ (53.39)	
Shares used to compute basic and diluted net loss per share[(1)]	500,000	500,000	500,000	500,000	500,000	500,000	
Pro forma net loss per common share assuming conversion of preferred stock, basic and diluted[(1)]				$ (0.37)		$ (0.96)	
Shares used in computing pro forma net loss per common share assuming conversion of preferred stock, basic and diluted[(1)]				16,778,767		27,946,401	

(1) See Note 1 to our financial statements for an explanation of the method used to calculate the historical and pro forma net loss per share and the number of shares used in the computation of the per share amounts.

(2) As disclosed in Note 9 to our financial statements, in connection with the sale of Series C preferred stock, we will record in the third quarter of 2004 a deemed dividend of $31.3 million and a stock-based compensation charge of $14.7 million.

	As of June 30, 2004		
	(in thousands)		
	Actual	Pro Forma	Pro Forma As Adjusted
Balance Sheet Data:			
Cash, cash equivalents and marketable securities available-for-sale	$ 15,191	$ 58,622	$
Working capital	14,291	57,722	
Total assets	15,632	59,063	
Redeemable convertible preferred stock	—	43,431	
Deficit accumulated during the development stage	(41,833)	(41,833)	
Total stockholders' equity	14,459	14,459	

RISK FACTORS

An investment in our common stock involves significant risks. You should consider carefully the risks described below and the other information included in this prospectus, including our financial statements and related notes, before you decide to buy our common stock. Our business, financial condition and results of operation could be harmed by any of the following risks. The trading price of our common stock could decline due to any of these risks, and you could lose part or all of your investment.

Risks Related to Our Business

We expect our net losses to continue for at least several years and we are unable to predict the extent of our future losses.

We are a development stage specialty pharmaceutical company with a limited operating history. We have incurred significant net losses since our inception. For the year ended December 31, 2003, we had a net loss of $6.2 million. For the six months ended June 30, 2004, we had a net loss of $26.7 million, including a $19.4 million non-cash stock-based compensation charge. We expect our annual net losses to increase over the next several years as we expand and incur significant clinical development costs. These losses, excluding the portion related to stock-based compensation, have reduced and will continue to reduce our stockholders' equity and working capital.

We expect our development expenses to increase in connection with our planned clinical trials for our product candidates and any other development projects that we may initiate. In addition, we expect to incur increased general and administrative expenses as well as the increased costs to operate as a public company. Consequently, we expect to continue to incur significant and increasing operating losses for the foreseeable future.

Unless we are able to generate sufficient product revenue, we will continue to incur losses from operations and may never become profitable.

We have not received, and do not expect to receive for at least the next several years, any revenues from the commercialization of our product candidates. To date, we have not generated any product revenue and have funded our operations primarily from private sales of our securities. Our only source of revenues in the first six months of 2004 was from our performance of development management services. In 2003, we received no revenues. We anticipate that, prior to our commercialization of a product candidate, strategic collaboration fees and out-licensing upfront and milestone payments will be our primary source of revenues. To obtain revenues from sales of our product candidates, we must succeed, either alone or with third parties, in developing, obtaining regulatory approval for, and manufacturing and marketing drugs with market potential. We may never succeed in these activities, and may never generate revenues that are significant enough to achieve profitability.

If we fail to develop and commercialize a therapeutic drug successfully, we may not generate sufficient revenues to continue our business operations.

We currently have no products that have received regulatory approval for commercial sale. The process to develop, obtain regulatory approval for and commercialize potential product candidates is long, complex and costly. All of our product candidates are in clinical development. In addition, we have limited internal discovery capabilities and rely on our ability to license or acquire additional product candidates. Consequently, our business is substantially dependent on our ability to complete development, obtain regulatory approval for and successfully commercialize our product candidates in a timely manner.

The loss of any rights to develop and market any of our product candidates would significantly impair our operating results.

We license the rights to develop and market our product candidates. We are obligated to develop and commercialize those product candidates in accordance with mutually agreed upon terms and conditions. Our ability

to satisfy some or all of the terms and conditions of our licensing arrangements is dependent on numerous factors, including some factors that are outside of our control. Our licensing arrangements may be terminated if we materially breach our obligations under the agreements and fail to cure a breach within a specified period of time.

If any of our license agreements is terminated, then we would have no further rights to develop and commercialize the product candidate which is the subject of the license. The termination of any of our license agreements would significantly and adversely affect our business.

If we fail to identify and license or acquire other product candidates, we will not be able to expand our business.

One of our key strategies is to license or acquire clinical-stage product candidates and further develop them for commercialization. The success of this strategy depends upon our ability to identify, select and acquire the right product candidates. Identifying, negotiating and implementing an economically viable product candidate acquisition or license is a lengthy and complex process. Moreover, the market for licensing and acquiring product candidates is intensely competitive and many of our competitors have greater resources than us. If we are not successful in identifying and licensing or acquiring other product candidates, we will not be able to grow our revenues with sales from new products.

Our product candidates must undergo clinical trials, which are long, expensive and unpredictable, and there is a high risk of failure.

Clinical trials are long, expensive and unpredictable. It may take several years to complete the clinical development necessary to commercialize a drug, and delays or failure can occur at any stage which may result in our inability to market and sell products derived from our product candidates and to generate product revenues. Of the large number of drugs in development, only a small percentage result in the submission of a new drug application to the Food and Drug Administration, or FDA, and even fewer are approved for commercialization. Interim results of clinical trials do not necessarily predict final results, and success in pre-clinical testing and early clinical trials does not ensure that later clinical trials will be successful. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials even after promising results in earlier trials.

All of our product candidates are at an early stage of development and the historical rate of failure for early-stage product candidates is extremely high. To date, the FDA has accepted Investigational New Drug, or IND, applications for only two of our five product candidates. We cannot conduct human clinical trials in the United States on our other three product candidates until an IND application is in effect and there can be no assurance that the FDA will allow our applications to go into effect.

In connection with clinical trials, we face risks that:

- a product candidate may not prove to be efficacious;
- patients may die or suffer other adverse effects for reasons that may or may not be related to the product candidate being tested;
- the results may not confirm the positive results of earlier trials; and
- the results may not be acceptable to the FDA or other regulatory agencies.

Delays, suspensions and terminations in our clinical trials could result in increased costs to us and delay our ability to generate product revenues.

The commencement of clinical trials can be delayed for a variety of reasons, including delays in:

- demonstrating sufficient safety to persuade regulatory authorities to allow a clinical trial to begin;

- reaching agreement on acceptable terms with prospective contract research organizations and clinical trial sites;
- manufacturing sufficient quantities of a product candidate;
- obtaining institutional review board approval to conduct a clinical trial at a prospective site; and
- obtaining sufficient patient enrollment, which is a function of many factors, including the size of the patient population, the nature of the protocol, the proximity of patients to clinical sites, the availability of effective treatments for the relevant disease and the eligibility criteria for the clinical trial.

Once a clinical trial has begun, it may be delayed, suspended or terminated due to a number of factors, including:

- ongoing discussions with regulatory authorities regarding the scope or design of our clinical trials or requests by them for supplemental information with respect to our clinical trial results;
- failure to conduct clinical trials in accordance with regulatory requirements;
- lower than anticipated retention rates of patients in clinical trials;
- serious adverse events or side effects experienced by participants; or
- insufficient supply or deficient quality of product candidates or other materials necessary for the conduct of our clinical trials.

Many of these factors described above may also ultimately lead to denial of regulatory approval of a current or potential product candidate. If we experience delays in our clinical trials, the commercial prospects for our product candidates will be harmed, and our ability to generate product revenues will be delayed.

If we fail to obtain the capital necessary to fund our operations, we will be unable to develop and commercialize our product candidates.

We have consumed substantial amounts of capital since our inception. From our inception to June 30, 2004, we used $21.7 million in cash to fund our operating activities and acquisitions of property and equipment. Although we believe our existing cash resources plus the proceeds of this offering will be sufficient to fund our anticipated cash requirements through 2006, we will require significant additional financing in the future to fund our operations. Our future capital requirements will depend on, and could increase significantly as a result of, many factors, including:

- progress in, and the costs of, our clinical trials;
- the costs of securing manufacturing arrangements for clinical or commercial production;
- 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 if we obtain regulatory clearances to market our product candidates.

Until we can generate significant continuing revenues, we expect to satisfy our future cash needs through strategic collaborations, private or public sales of our securities, debt financings or by licensing all or a portion of our product candidates. Strategic collaborations, future debt and equity financings and licensing transactions may significantly dilute existing stockholders or limit our rights to our product candidates. We cannot be certain that additional sources of capital will be available to us on acceptable terms, or at all. If sources of capital are not available, we may not be in a position to pursue other business opportunities that require financial commitments and we may be required to:

- terminate or delay clinical trials for one or more of our product candidates;

- delay establishing sales and marketing capabilities;
- curtail our efforts to acquire new product candidates; or
- relinquish rights to our technologies or product candidates.

We will depend on strategic collaborations with third parties to develop and commercialize selected product candidates and will not have control over a number of key elements relating to the development and commercialization of these product candidates.

A key aspect of our strategy is to selectively enter into collaborations with third-party partners. We may rely on our partners for financial resources and for development, commercialization and regulatory expertise with respect to selected product candidates.

Our partners may fail to develop or effectively commercialize products using our product candidates because they:

- do not have sufficient resources or decide not to devote the necessary resources due to internal constraints such as limited cash or human resources;
- decide to pursue a competitive potential product that has been developed outside of the collaboration; or
- cannot obtain the necessary regulatory approvals.

We may not be able to enter into collaborations on acceptable terms, if at all. We also face competition in our search for partners with whom we may collaborate.

We rely on third parties to conduct our clinical trials and perform data collection and analysis, which may result in costs and delays that prevent us from successfully commercializing product candidates.

Although we design and manage our current clinical trials, we do not have the ability to conduct clinical trials directly for our product candidates. We will rely on contract research organizations, medical institutions, clinical investigators and contract laboratories to conduct our clinical trials and to perform data collection and analysis.

Our clinical trials may be delayed, suspended or terminated if:

- the third parties upon whom we rely do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines;
- these third parties need to be replaced; or
- the quality or accuracy of the data obtained by the third parties is compromised due to their failure to adhere to our clinical protocols or regulatory requirements or for other reasons.

Failure to perform by the third parties upon whom we rely may increase our development costs, delay our ability to obtain regulatory approval and prevent the commercialization of our product candidates. While we believe that there are numerous alternative sources to provide these services, in the event that we seek such alternative sources, we may not be able to enter into replacement arrangements without delays or additional expenditures.

Even if we successfully complete the clinical trials of our product candidates, they may fail for other reasons.

Even if we successfully complete the clinical trials of our product candidates, they may fail for other reasons, including the possibility that the product candidates will:

- fail to provide acceptable evidence of safety and efficacy;

- fail to receive the regulatory approvals required to market them as drugs;
- fail to compete with product candidates or other treatments commercialized by our competitors;
- be subject to proprietary rights held by others requiring the negotiation of a license agreement prior to marketing; or
- be difficult or expensive to manufacture on a commercial scale.

Our product candidates may not gain acceptance among physicians, patients and the medical community, thereby limiting our potential to generate revenues.

Even if our product candidates are approved for commercial sale by the FDA or other regulatory authorities, the degree of market acceptance of any approved product candidate by physicians, healthcare professionals and third-party payors and our profitability and growth will depend on a number of factors, including:

- relative convenience and ease of administration;
- the prevalence and severity of any adverse side effects;
- availability of alternative treatments;
- pricing and cost effectiveness, which may be subject to regulatory control;
- effectiveness of our or any of our partners' sales and marketing strategy; and
- our ability to obtain sufficient third-party insurance coverage or reimbursement.

If any product candidate that we develop does not provide a treatment regimen that is as beneficial as the current standard of care or otherwise does not provide patient benefit, that product likely will not achieve market acceptance.

If we are unable to attract, retain and motivate key management and scientific staff, our drug development programs may be delayed and we may be unable to successfully develop or commercialize our product candidates.

Our success depends on our ability to attract, retain and motivate highly qualified management and scientific personnel. In particular, our drug development programs depend on our ability to attract and retain highly experienced development and regulatory personnel. In addition, we will need to hire additional personnel as we continue to expand our clinical development and other development activities. We face competition for experienced scientists and other technical and professional personnel from numerous companies and academic and other research institutions. Competition for qualified personnel is particularly intense in the San Diego, California area. Failure to attract and retain the necessary personnel could significantly impede the achievement of our development and commercialization objectives.

Although we have employment agreements with key members of management, each of our employees, subject to applicable notice requirements, may terminate his or her employment at any time. We do not carry "key person" insurance covering members of senior management. If we lose any of our key management personnel, we may not be able to find suitable replacements and our business would be harmed as a result. In particular, we have relied on the skills and relationships of our founders, Dr. Yuichi Iwaki and Dr. Takashi Kiyoizumi, in licensing product candidates from Japanese pharmaceutical companies and securing financing from Japanese institutions.

If we are unable to establish our sales and distribution capabilities, we will be unable to successfully commercialize our core product candidates.

To date, we have not sold, marketed or distributed any pharmaceutical products. If we are successful in developing and obtaining regulatory approvals for the product candidates in our strategic core programs, we will

need to establish sales, marketing and distribution capabilities. Developing an effective sales and marketing force will require a significant amount of our financial resources and time. We may be unable to establish and manage an effective sales force in a timely or cost-effective manner, if at all, and any sales force we do establish may not be capable of generating demand for our products. Although we intend to establish strategic collaborations to market the products in our strategic core programs outside the United States, if we are unable to establish such collaborations, we may be required to market our strategic core product candidates outside of the United States directly. In that event, we may need to build a corresponding international sales and marketing capability with technical expertise and with supporting distribution capabilities.

We may not be able to continue to exploit the services of outside scientific and clinical advisors fully, which could impair the progress of our clinical trials and our research and development efforts.

We work with scientific and clinical advisors at academic and other institutions who are experts in the fields related to each of our drug development projects. They advise us with respect to our clinical trials. These advisors are not our employees and may have other commitments that would limit their future availability to us. Although our scientific and clinical advisors generally agree not to engage in competing work, if a conflict of interest arises between their work for us and their work for another entity, we may lose their services, which may impair our reputation in the industry and delay the clinical development of our product candidates.

We will need to increase the size of our organization, and we may encounter difficulties managing our growth, which could adversely affect our results of operations.

We will need to expand and effectively manage our operations and facilities in order to advance our drug development programs, achieve milestones under our collaboration agreements, facilitate additional collaborations and pursue other development activities. It is possible that our human resources and infrastructure may be inadequate to support our future growth. To manage our growth, we will be required to continue to improve our operational, financial and management controls, reporting systems and procedures and to attract and retain sufficient numbers of talented employees. Meeting our public reporting obligations and other regulatory requirements in the United States and Japan following this offering will place additional demands on our limited resources. In addition, we will have to develop sales, marketing and distribution capabilities for the product candidates in our strategic core programs. We may not successfully manage the expansion of our operations and, accordingly, may not achieve our development and commercialization goals.

We expect that our results of operations will fluctuate, which may make it difficult to predict our future performance from period to period.

Our quarterly operating results have fluctuated in the past and are likely to continue to do so in the future. Some of the factors that could cause our operating results to fluctuate from period to period include:

- the status of development of our product candidates and, particularly, the timing of any milestone payments to be paid or received by us under our licensing agreements;
- the incurrence of clinical expenses that could fluctuate significantly from period to period;
- the unpredictable effects of collaborations during these periods;
- the timing of our satisfaction of applicable regulatory requirements;
- the rate of expansion of our clinical development and other internal development efforts;
- the effect of competing technologies and products and market developments; and
- general and industry-specific economic conditions.

We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

Relying on third-party manufacturers may result in delays in our clinical trials and product introductions as well as increased costs.

We have no manufacturing facilities. We do not intend to develop facilities for the manufacture of product candidates for clinical trials or commercial purposes in the foreseeable future. We are contracting with third-party manufacturers to produce, in collaboration with us, our product candidates for clinical trials. While we believe that there are competitive sources available to manufacture our product candidates, we may not be able to enter into arrangements without delays or additional expenditures. We cannot estimate these delays or costs with certainty.

Our manufacturers will be obliged to operate in accordance with FDA-mandated current good manufacturing practices, or cGMPs. A failure of any of our contract manufacturers to establish and follow cGMPs and to document their adherence to such practices may lead to significant delays in clinical trials or in obtaining regulatory approval of product candidates or the ultimate launch of our products into the market. In addition, changing contract manufacturers is difficult. For example, doing so requires re-validation of the manufacturing processes and procedures in accordance with FDA-mandated cGMPs, which may be costly and time-consuming. Failure by our third-party manufacturers or us to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure of the government to grant pre-market approval of drugs, delays, suspension or withdrawal of approvals, seizures or recalls of products, operating restrictions and criminal prosecutions.

We may not be able to manufacture our product candidates in commercial quantities, which would prevent us from commercializing our product candidates.

To date, our product candidates have been manufactured in small quantities for pre-clinical and clinical trials. If any of these product candidates are approved by the FDA or other regulatory agencies for commercial sale, we will need to manufacture them in larger quantities. We may not be able to successfully increase the manufacturing capacity, whether in collaboration with third-party manufacturers or on our own, for any of our product candidates in a timely or economic manner, or at all. Significant scale-up of manufacturing may require additional validation studies, which the FDA must review and approve. If we are unable to successfully increase the manufacturing capacity for a product candidate, the regulatory approval or commercial launch of that product candidate may be delayed or there may be a shortage in supply. Our product candidates will require precise, high quality manufacturing. Our failure to achieve and maintain these high manufacturing standards, including the incidence of manufacturing errors, could result in patient injury or death, product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that could result in a material adverse effect on our business, financial condition and results of operations.

Materials necessary to manufacture our products may not be available on commercially reasonable terms, or at all, which may delay the development and commercialization of our products.

There are a limited number of suppliers of the materials necessary to produce our compounds. The manufacturers for our products will need to purchase these materials for our clinical trials and for commercial distribution if we obtain marketing approval for any of our products. Suppliers may not sell us these materials at the time we need them or on commercially reasonable terms. If our manufacturers are unable to obtain these materials for our clinical trials, product testing and potential regulatory approval of our products would be delayed, significantly impacting our ability to develop the product candidate. If our manufacturers or we are unable to purchase these materials after regulatory approval has been obtained for our products, the commercial launch of our products would be delayed or there would be a shortage in supply of our products, which would materially affect our ability to generate revenues from the sale of our products.

If we engage in any acquisition, we will incur a variety of costs and may never realize the anticipated benefits of the acquisition.

We may attempt to acquire businesses, technologies, services or products or in-license technologies that we believe are a strategic fit with our business. We have limited experience in identifying acquisition targets, successfully completing proposed acquisitions and integrating any acquired businesses, technologies, services or products into our current infrastructure. The process of integrating any acquired business, technology, service or product may result in unforeseen operating difficulties and expenditures any may divert significant management attention from our ongoing business operations. As a result, we will incur a variety of costs in connection with an acquisition and may never realize its anticipated benefits.

Risks Related to Our Intellectual Property

Our ability to compete may decline if we do not adequately protect our proprietary rights.

Our commercial success depends on obtaining and maintaining proprietary rights to our product candidates and technologies and their uses, as well as successfully defending these rights against third-party challenges. We will only be able to protect our product candidates, proprietary technologies and their uses from unauthorized use by third parties to the extent that we obtain or have access to valid and enforceable patents that cover our contemplated commercial activities or are able to effectively protect any trade secrets, which cover aspects of our proprietary technology.

Our success depends upon our ability to protect our intellectual property and our proprietary technology.

The patent protection of our product candidates and technology involves complex legal and factual questions. We cannot be certain that any of the patents or patent applications owned by us or our licensors related to our product candidates and technology will provide adequate protection from competing products. Our success will depend, in part, on whether we or our licensors can:

- obtain and maintain patents to protect our product candidates;
- obtain and maintain any required or desirable licenses to use certain technologies of third parties, which may be protected by patents;
- protect our trade secrets and know-how; and
- operate without infringing the intellectual property and proprietary rights of others.

We cannot be certain that patents will be issued that adequately protect our product candidates as a result of pending applications. If a third party has also filed a patent application relating to an invention claimed by us or our licensors, we may be required to participate in an interference proceeding, if one is declared by the U.S. Patent and Trademark Office, to determine priority of invention, which could result in substantial uncertainties and cost for us, even if the eventual outcome is favorable to us. The degree of future protection for our proprietary rights is uncertain. For example:

- we might not have been the first to make the inventions covered by each of our pending patent applications;
- we might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies;
- it is possible that none of our pending patent applications will result in issued patents;
- any patents under which we hold rights may not provide us with a basis for commercially-viable products, may not provide us with any competitive advantages or may be challenged by third parties as not infringed, invalid, or unenforceable under U.S. or foreign laws;

- any of the issued patents under which we hold rights may not be valid or enforceable or may be circumvented successfully; or
- we may not develop additional proprietary technologies that are patentable.

Proprietary trade secrets and unpatented know-how may also prove to be very important to our future research and development activities. However, we cannot be certain that others will not develop the same or similar technologies on their own. Although we have taken steps, including entering into confidentiality and intellectual property disclosure agreements with all of our employees to protect our trade secrets and unpatented know-how and keep them secret, third parties may still obtain this information.

Confidentiality agreements with employees and others may not adequately prevent disclosure of our trade secrets and other proprietary information and may not adequately protect our intellectual property, which could limit our ability to compete.

Because we operate in the highly technical field of drug discovery and development of drugs, we rely in part on trade secret protection in order to protect our proprietary technology and processes. However, trade secrets are difficult to protect. We enter into confidentiality and intellectual property assignment agreements with our corporate partners, employees, consultants, outside scientific collaborators, sponsored researchers and other advisors. These agreements generally require that the other party keep confidential and not disclose to third parties all confidential information developed by the party or made known to the party by us during the course of the party's relationship with us. These agreements also generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, these agreements may not be honored and may not effectively assign intellectual property rights to us. Enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time consuming and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. The failure to obtain or maintain trade secret protection could adversely affect our competitive position.

We may be subject to damages resulting from claims that our employees or we have wrongfully used or disclosed alleged trade secrets of their former employers or of our licensors.

Some of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. In addition, our business includes the licensing of intellectual property rights from other companies. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers or of our licensors. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent our ability to commercialize certain potential drugs, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

A dispute concerning the infringement or misappropriation of our proprietary rights or the proprietary rights of others could be time consuming and costly, and an unfavorable outcome could harm our business.

There is significant litigation in our industry regarding patent and other intellectual property rights. While we are not currently subject to any pending litigation, and are not aware of any threatened litigation, we may be exposed to future litigation by third parties based on claims that our product candidates, technologies or activities infringe the intellectual property rights of others. There are many patents relating to chemical compounds and the uses thereof. If our compounds are found to infringe any such patents, we may have to pay significant damages. A patentee could prevent us from importing, making, using or selling the patented compounds. We may need to resort to litigation to enforce a patent issued to us, protect our trade secrets or determine the scope and validity of third-party proprietary rights. From time to time, we may hire scientific personnel formerly employed by other

companies involved in one or more areas similar to the activities conducted by us. Either we or these individuals may be subject to allegations of trade secret misappropriation or other similar claims as a result of their prior affiliations. If we become involved in litigation, it could consume a substantial portion of our managerial and financial resources, regardless of whether we win or lose. We may not be able to afford the costs of litigation. Any legal action against us or our collaborators could lead to:

- payment of damages, potentially treble damages, if we are found to have willfully infringed a third party's patent rights;
- injunctive or other equitable relief that may effectively block our ability to further develop, commercialize and sell our products; or
- we or our collaborators having to enter into license arrangements that may not be available on commercially acceptable terms, if at all.

As a result, we could be prevented from commercializing current or future products.

The patent applications of pharmaceutical companies involve highly complex legal and factual questions, which, if determined adversely to us, could negatively impact our patent position.

The patent positions of pharmaceutical companies can be highly uncertain and involve complex legal and factual questions. The U.S. Patent and Trademark Office's standards are uncertain and could change in the future. Consequently, the issuance and scope of patents cannot be predicted with certainty. Patents, if issued, may be challenged, invalidated or circumvented. U.S. patents and patent applications may also be subject to interference proceedings, and U.S. patents may be subject to reexamination proceedings in the U.S. Patent and Trademark Office (and foreign patents may be subject to opposition or comparable proceedings in the corresponding foreign patent office), which proceedings could result in either loss of the patent or denial of the patent application or loss or reduction in the scope of one or more of the claims of the patent or patent application. In addition, such interference, reexamination and opposition proceedings may be costly. Accordingly, rights under any issued patents may not provide us with sufficient protection against competitive products or processes.

In addition, changes in or different interpretations of patent laws in the U.S. and foreign countries, to the extent that patent laws exist at all in a foreign country, may permit others to use our discoveries or to develop and commercialize our technology and products without providing any compensation to us. The laws of some countries do not protect intellectual property rights to the same extent as U.S. laws and those countries may lack adequate rules and procedures for defending our intellectual property rights. For example, some countries, including many in Europe, do not grant patent claims directed to methods of treating humans, and in these countries, patent protection may not be available to the same extent as that found in the United States, if at all, to protect our product candidates.

If we fail to obtain and maintain patent protection and trade secret protection of our product candidates, proprietary technologies and their uses, we could lose our competitive advantage and competition we face would increase, reducing our potential revenues and adversely affecting our ability to attain or maintain profitability.

Risks Related to Our Industry

We will be subject to stringent regulation in connection with the marketing of any products derived from our product candidates, which could delay the development and commercialization of our products.

The pharmaceutical industry is subject to stringent regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Neither we nor our current or future collaborators can market our products in the United States until the product has undergone rigorous pre-clinical testing and clinical trials and the FDA has approved the products. We may never receive approvals. Satisfaction of regulatory requirements typically takes many years and requires substantial resources. Even if regulatory

approval is obtained, the FDA may impose significant restrictions on the indicated uses, conditions for use, labeling, advertising, promotion and/or marketing of such products, and post-approval studies, including additional research and development and clinical trials, may be required. These regulatory requirements may limit the size of the market for the product or result in the incurrence of additional costs. Any delay or failure in obtaining required approvals could have a material adverse effect on our ability to generate revenues from the particular product candidate.

In order to market our products outside of the United States, we and our strategic partners and licensees must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the United States. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects detailed above regarding FDA approval in the United States, including the risk that our product candidate may not be approved for all indications that we request, which would limit the uses of our product and adversely impact our potential royalties and product sales. Such approval may be subject to limitations on the indicated uses for which the product may be marketed or require costly, post-marketing follow-up studies.

If we fail to comply with applicable regulatory requirements in the United States and other countries, we may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

If our competitors develop and market products that are more effective than our product candidates, they may reduce or eliminate our commercial opportunities.

Competition in the pharmaceutical industry is intense and is expected to increase. We face competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies, both in the United States and abroad. Some of these competitors have products or are pursuing the development of drugs that target the same diseases and conditions that are the focus of our product development programs.

Many of our competitors have substantially greater capital and research and development resources, manufacturing, sales and marketing capabilities and production facilities than we do. Smaller companies also may prove to be significant competitors, particularly through proprietary research discoveries and collaboration arrangements with established pharmaceutical companies. Our competitors could have products that are in advanced development and may succeed in developing drugs that are more effective, safer and more affordable or more easily administered than ours, or that achieve patent protection or commercialization sooner than our products. Our competitors may also develop alternative therapies that could further limit the market for any drugs that we may develop.

Rapid technological change could make our products obsolete.

Biopharmaceutical technologies have undergone rapid and significant change and we expect that they will continue to do so. Any compounds, products or processes that we develop may become obsolete or uneconomical before we recover any expenses incurred in connection with their development.

Consumers may sue us for product liability, which could result in substantial liabilities that exceed our available resources and damage our reputation.

Developing and commercializing drug products entails significant product liability risks. Liability claims may arise from our and our partners' use of products in clinical trials and the commercial sale of those products.

Consumers may make product liability claims directly against us and/or our collaborators, and our collaborators or others selling these products may seek contribution from us if they incur any loss or expenses related to such claims. Although we currently have product liability insurance that covers our clinical trials, we will need to increase and expand this coverage as we commence larger scale trials and if our product candidates are approved for commercial sale. This insurance may be prohibitively expensive or may not fully cover our potential liabilities. Inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of products that we or one of our partners develop. Product liability claims could have a material adverse effect on our business and results of operations. Liability from such claims could exceed our total assets if we do not prevail in any lawsuit brought by a third party alleging that an injury was caused by one or more of our drug products.

Health care reform measures could adversely affect our business.

The business and financial condition of pharmaceutical and biotechnology companies are affected by the efforts of governmental and third-party payors to contain or reduce the costs of health care. In the United States and in foreign jurisdictions there have been, and we expect that there will continue to be, a number of legislative and regulatory proposals aimed at changing the health care system. For example, in some countries other than the United States, pricing of prescription drugs is subject to government control, and we expect proposals to implement similar controls in the United States to continue. Another example of proposed reform that could affect our business is the current discussion of drug reimportation into the United States. In 2000, Congress directed the FDA to adopt regulations allowing the reimportation of approved drugs originally manufactured in the United States back into the United States from other countries where the drugs were sold at lower prices. Although the Secretary of Health and Human Services has refused to implement this directive, in July 2003, the House of Representatives passed a similar bill that does not require the Secretary of Health and Human Services to act. The reimportation bills have not yet resulted in any new laws or regulations; however, these and other initiatives could decrease the price we or any potential collaborators receive for our products, adversely affecting our profitability. The pendency or approval of such proposals could result in a decrease in our stock price or our ability to raise capital or to obtain strategic partnerships or licenses.

Risks Related to This Offering

Our stock price may be particularly volatile and you may lose all or a substantial part of your investment.

The market prices for securities of pharmaceutical companies in general, and early-stage companies in particular, have been highly volatile and may continue to be highly volatile in the future. Volatility in the market price for a particular company's stock has often been unrelated or disproportionate to the operating performance of that company. Market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. The following factors, in addition to the other risk factors described in this prospectus, may have a significant impact on the market price of our common stock:

- the development status of our product candidates, including results of our clinical trials;
- market conditions or trends related to the pharmaceutical industry, or the market in general;
- announcements of technological innovations, new commercial products or other material events by our competitors or us;
- disputes or other developments concerning our proprietary rights;
- changes in, or failure to meet, securities analysts' or investors' expectations of our financial performance;
- additions or departures of key personnel;
- discussions of our business, products, financial performance, prospects or stock price by the financial and scientific press and online investor communities such as chat rooms;

- public concern as to the safety of drugs and drug delivery techniques;
- regulatory developments in the United States, Japan and other foreign countries; or
- economic and political factors, including wars, terrorism and political unrest.

In the past, following periods of volatility in the market price of a particular company's securities, securities class action litigation has often resulted. We may become subject to this type of litigation, which is often extremely expensive and diverts management's attention, even if such litigation is ultimately concluded in a manner favorable to us.

In addition, the market price for our common stock may be affected by uncertainties with respect to the Mothers Market. The Mothers Market is a section of the Tokyo Stock Exchange that opened for business in November 1999. The Mothers Market was established to provide a market for emerging companies with high-growth potential to more easily access the public markets, to foster new industries and to provide for a wider choice of investment instruments. The Mothers Market places a greater emphasis on investor self-responsibility by not requiring a financial and operating history and by shortening the time period otherwise required for listing on the Tokyo Stock Exchange. If the Mothers Market does not prove to be able to provide a liquid trading market for our common stock, it may be difficult for you to sell our common stock at a price that is attractive to you, if at all.

If we raise additional capital in the future, your ownership in us could be diluted.

We expect that we will need to raise additional capital in the future. We may not be able to do so on favorable terms, if at all. Additional equity financings we may undertake may be dilutive to the holders of our common stock or cause the price of our common stock to decline. If we obtain funds through a credit facility or through the issuance of debt or preferred securities, these securities would have rights senior to your rights as a common stockholder. If we cannot obtain sufficient capital on commercially acceptable terms, we will not be able to fully carry out our business strategy.

There is no prior market for our common stock and you may not be able to resell your shares at or above the initial offering price.

Prior to this offering, there has been no public market for shares of our common stock. If you purchase shares of our common stock in this offering, you will not pay a price that was established in a competitive market. Rather, you will pay a price that we negotiated with the representatives of the underwriters. This price may not be indicative of prices that will prevail in the future in the trading market. Among the factors to be considered in determining the initial public offering price of the common stock, in addition to prevailing market conditions, will be:

- estimates of our business potential and the earnings prospects of the product candidates in our development programs;
- an assessment of our management; and
- market valuations of early-stage drug discovery and development companies.

The market price of our common stock may decline below the initial public offering price, and you may not be able to resell your shares at or above this price.

An active, liquid trading market may not develop following completion of this offering, or if developed, may not be maintained. Although we intend to list our shares on the Mothers Market of the Tokyo Stock Exchange, we may be unable to maintain that listing if we fail to record annual revenues of ¥100 million, approximately $900,000 under current exchange rates, per year. Our ability to generate this level of revenue from strategic collaboration fees and licensing fees during 2005 and, if we fail to do so, the willingness of the Tokyo Stock Exchange to grant us a waiver or grace period, are uncertain.

Our management has broad discretion over the use of the proceeds from this offering, and we may not use these proceeds effectively, which could adversely affect our results of operations.

Our management will have significant flexibility in applying the net proceeds of this offering and could use these proceeds for corporate purposes that do not increase our profitability or our market value, or in ways with which our stockholders may not agree. Investors will be relying on the judgment of our management regarding the application of the proceeds of this offering. We may use the net proceeds for corporate purposes that do not yield a significant return or any return at all for our stockholders, which may cause our stock price to decline.

If our officers, directors and largest stockholders choose to act together, they may be able to control our management and operations, acting in their own best interests and not necessarily in the best interests of other stockholders.

Following completion of this offering, our directors, executive officers and holders of 5% or more of our outstanding common stock and their affiliates will beneficially own approximately % of our common stock (after giving effect to the conversion of all outstanding shares of our preferred stock into shares of our common stock, but assuming no exercise of the underwriters' over-allotment option and no exercise of outstanding options or warrants). As a result, these stockholders, acting together, will have the ability to significantly influence all matters requiring approval by our stockholders, including the election of all of our directors, amendments to our restated certificate of incorporation, going-private transactions and the approval of mergers or other business combination transactions. The interests of this group of stockholders may not always coincide with our interests or the interests of the other stockholders, and this group of stockholders may act in a manner that advances their best interests but not necessarily those of the other stockholders.

If our stockholders sell substantial amounts of our common stock after this offering, the market price of our common stock may decline.

A significant number of shares of our common stock are held by a small number of stockholders. Sales of a significant number of shares of our common stock after this offering, for example, after the expiration of the lock-up agreements described elsewhere in this prospectus, or the expectation that such sales may occur, could significantly reduce the market price of our common stock. The holders of our common stock outstanding prior to this offering agreed with the underwriters to restrictions on sales of their shares for 180 days from the initial listing date. Following this lock-up period, those shareholders will generally have rights to cause us to file a registration statement on their behalf or include their shares in registration statements that we may file on our behalf or on behalf of other stockholders pursuant to a registration rights agreement that we have entered into with these stockholders.

As a new investor, you will experience immediate and substantial dilution in the net tangible book value of your investment.

Purchasers in this offering will experience immediate and substantial dilution in the net tangible book value per share of our common stock from the initial public offering price. Because we expect the offering price to be substantially higher than the net tangible book value per share of our common stock, if you purchase shares in this offering, you will incur dilution in the net tangible book value per share of your shares of $. For a further description of the dilution that you will experience immediately after this offering, please see "Dilution." In the past, we issued options and warrants to acquire capital stock at prices below the initial public offering price of common stock in this offering. As a result, there likely will be further dilution to investors upon exercise of these options and warrants.

We will incur increased costs as a result of recently enacted and proposed changes in laws and regulations relating to corporate governance matters.

Recently enacted and proposed changes in the laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002 and rules adopted or proposed by the Securities and Exchange

Commission will result in increased costs to us as we evaluate the implications of any new rules and regulations and respond to new requirements under such rules and regulations. We will be required to comply with these rules and regulations after the completion of this offering. The new rules and regulations could make it more difficult or more costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers. We cannot predict or estimate the amount of the additional costs we may incur or the timing of such costs to comply with these rules and regulations.

Changes in or interpretations of accounting rules and regulations, such as expensing of stock options, could result in unfavorable accounting charges or require us to change our compensation policies.

Accounting methods and policies for business and market practices of biopharmaceutical companies, including policies regarding expensing stock options, are subject to further review, interpretation and guidance from relevant accounting authorities, including the Securities and Exchange Commission, or SEC. For example, we currently are not required to record stock-based compensation charges if the employee's stock option exercise price equals or exceeds the fair value of our common stock at the date of grant. Although the standards have not been finalized and the timing of a final statement has not been established, the Financial Accounting Standards Board, or FASB, has announced their support for expensing the fair value of stock options granted. If we were to change our accounting policy to expense the fair value of stock options granted and retroactively restate all prior periods presented, then our operating expenses and reported losses could increase. We rely heavily on stock options to compensate existing employees and attract new employees. If we are required to expense stock options, we may then choose to reduce our reliance on stock options as a compensation tool. If we reduce our use of stock options, it may be more difficult for us to attract and retain qualified employees. Although we believe that our accounting practices are consistent with current accounting pronouncements, changes to or interpretations of accounting methods or policies in the future may require us to reclassify, restate or otherwise change or revise our financial statements.

Anti-takeover provisions in our charter documents and under Delaware law may make an acquisition of us more complicated and the removal and replacement of our directors and management more difficult.

Our restated certificate of incorporation and amended and restated bylaws contain provisions that may delay or prevent a change in control, discourage bids at a premium over the market price of our common stock or adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. These provisions may also make it difficult for stockholders to remove and replace our board of directors and management. These provisions:

- establish that members of the board of directors may be removed only for cause upon the affirmative vote of stockholders owning at least a majority of our capital stock;
- authorize the issuance of "blank check" preferred stock that could be issued by our board of directors in a discriminatory fashion designed to increase the number of outstanding shares and prevent or delay a takeover attempt;
- limit who may call a special meeting of stockholders;
- establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings;
- prohibit our stockholders from making certain changes to our restated certificate of incorporation or amended and restated bylaws except with 66 $^{2}/_{3}$% stockholder approval; and
- provide for a classified board of directors with staggered terms.

We are also subject to provisions of the Delaware corporation law that, in general, prohibit any business combination with a beneficial owner of 15% or more of our common stock for five years unless the holder's acquisition of our stock was approved in advance by our board of directors. Although we believe these provisions collectively provide for an opportunity to receive higher bids by requiring potential acquirors to negotiate with our board of directors, they would apply even if the offer may be considered beneficial by some stockholders.

These provisions may delay or prevent a third party from acquiring us. Any such delay or prevention could cause the market price of our common stock to decline.

We have never paid dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future.

We have paid no cash dividends on any of our classes of capital stock to date and we currently intend to retain our future earnings, if any, to fund the development and growth of our businesses. In addition, the terms of existing or any future debts may preclude us from paying these dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. These forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” These statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by any forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “might,” “will,” “intend,” “should,” “could,” “can,” “would,” “expect,” “believe,” “estimate,” “predict,” “potential,” “plan,” or the negative of these terms, and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in this prospectus in greater detail under the heading “Risk Factors.” Also, these forward-looking statements represent our estimates and assumptions only as of the date of this prospectus. Except as required by federal securities laws, we do not intend to update any forward-looking statements, whether as a result of new information, future events or otherwise.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be different materially from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

This prospectus contains statistical data that we obtained from various third-party sources and publications. These sources and publications generally indicate that they have obtained their information from sources believed to be reliable, but do not guarantee the accuracy or completeness of the information. Although we believe that the sources and publications are reliable, we have not verified independently the data and make no representation as to the accuracy of the data we have included.

USE OF PROCEEDS

We expect that the net proceeds we will receive from the sale of the shares of common stock offered by us will be approximately $, based on an assumed initial public offering price of $ per share, which is the midpoint of our expected public offering range, and after deducting the underwriting discounts and commissions and the estimated offering expenses payable by us.

The principal purposes of this offering are to obtain additional working capital, establish a public market for our common stock and facilitate our future access to public markets. We expect to use the majority of the net proceeds of this offering to continue the development and prepare for the commercialization of the product candidates in our core programs, for other working capital and general purposes and to advance the clinical trials of the product candidates in our partnering programs. In addition, we may use a portion of the net proceeds of this offering to in-license additional product candidates.

The amounts and timing of our actual expenditures depend on several factors, including the progress of our research and development efforts and the amount of cash used by our operations. We have not determined the amount or timing of the expenditures in the areas listed above. Pending their use, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing instruments.

DIVIDEND POLICY

We have never declared or paid dividends on our capital stock and do not anticipate paying dividends in the foreseeable future. We currently intend to retain our earnings, if any, for the growth and development of our business.

CAPITALIZATION

The following table sets forth our capitalization as of June 30, 2004:

- on an actual basis;
- on a pro forma basis to give effect to (1) the sale of 27,667,856 shares of Series C preferred stock in a recent private financing, and (2) the filing of a restated certificate of incorporation to provide for authorized capital stock of 83,000,000 shares of common stock and 28,959,006 shares of preferred stock; and
- on a pro forma basis as adjusted to give effect to (1) the anticipated filing of a restated certificate of incorporation to provide for authorized capital stock of 200,000,000 shares of common stock and 5,000,000 shares of undesignated preferred stock, (2) the sale by us of shares of common stock at an assumed initial public offering price of $ per share in this offering and the receipt of the estimated net proceeds therefrom, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, and (3) the conversion of all of our outstanding shares of preferred stock into 66,782,856 shares of common stock upon the closing of this offering.

You should read the information in this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and accompanying notes appearing elsewhere in this prospectus.

	As of June 30, 2004		
	Actual	Pro Forma	Pro Forma As Adjusted
Cash, cash equivalents and marketable securities available-for-sale	$ 15,191,264	$ 58,622,420	$
Redeemable convertible preferred stock, $0.01 par value pro forma and pro forma as adjusted; actual—no shares authorized, issued and outstanding; pro forma—27,667,856 shares authorized, issued and outstanding; pro forma as adjusted—no shares authorized, issued and outstanding	$ —	$ 43,431,156	$
Stockholders' equity:			
Convertible preferred stock, $0.01 par value actual, pro forma and pro forma as adjusted; actual—5,000,000 shares authorized; 1,291,150 shares issued and outstanding; pro forma —28,959,006 shares authorized; 28,959,006 shares issued and outstanding; pro forma as adjusted—5,000,000 shares authorized; no shares issued and outstanding	12,912	12,912	
Common stock, $0.001 par value actual, pro forma and pro forma as adjusted; actual—80,000,000 shares authorized; 500,000 shares issued and outstanding; pro forma—83,000,000 shares authorized; 500,000 shares issued and outstanding; pro forma as adjusted—200,000,000 shares authorized; shares issued and outstanding	500	500	
Additional paid-in capital	57,406,689	57,406,689	
Deferred employee stock-based compensation	(1,127,510)	(1,127,510)	
Deficit accumulated during the development stage	(41,833,269)	(41,833,269)	
Total stockholders' equity	14,459,322	14,459,322	
Total capitalization	$ 14,459,322	$ 57,890,478	$

The number of shares in the table above excludes, as of September 30, 2004:

- 1,510,000 shares of common stock subject to options outstanding, at a weighted average exercise price of $1.00 per share;
- 13,356,572 shares of common stock subject to warrants outstanding, at a weighted average exercise price of $0.13 per share; and
- additional shares of common stock reserved for future grant or issuance under our 2004 Stock Incentive Plan.

As disclosed in Note 9 to our financial statements, in connection with the sale of Series C preferred stock, we will record in the third quarter of 2004 a deemed dividend of $31.3 million and a stock-based compensation charge of $14.7 million.

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock after this offering. As of June 30, 2004, we had a net tangible book value of $14.5 million, or $28.92 per share of common stock, not taking into account the conversion of our outstanding preferred stock, including the conversion of the Series C preferred stock sold in a recent private financing into common stock. Net tangible book value per share is equal to our total tangible assets (total assets less intangible assets) less total liabilities, divided by the number of shares of our outstanding common stock. After giving effect to the conversion of all of our preferred stock, including the conversion of the Series C preferred stock and the sale of shares of common stock offered by this prospectus at an assumed initial public offering price of $ per share, the midpoint of the range shown on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and our estimated offering expenses, our pro forma as adjusted net tangible book value as of June 30, 2004 was approximately $ million, or approximately $ per pro forma share of common stock. This represents an immediate increase in pro forma net tangible book value of $ per share to our existing stockholders and an immediate dilution of $ per share to new investors in this offering. If the initial public offering price is higher or lower than $ per share, the dilution to new stockholders will be higher or lower, respectively. The following table illustrates this per share dilution:

Assumed initial public offering price per share		$
Pro forma as adjusted net tangible book value per share before this offering	$	
Increase per share attributable to new investors		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors		$

The following table sets forth on a pro forma as adjusted basis, as of June 30, 2004, the number of shares of common stock issued by us, the total consideration received and the average price per share paid by existing holders of common stock and by the new investors.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	67,282,856	%	$ 83,986,927	%	$ 1.25
New investors					
Total		%	$	%	

The discussion and tables above assume no exercise of the underwriters' over-allotment option, the outstanding warrants or any outstanding stock options. If the underwriters' over-allotment option is exercised in full, the number of shares of common stock held by existing stockholders will be reduced to % of the total number of shares of common stock to be outstanding after this offering, and the number of shares of common stock held by the new investors will be increased to shares or % of the total number of shares of common stock outstanding after this offering. See "Principal Stockholders."

As of September 30, 2004, there were 1,510,000 shares of common stock subject to options outstanding, at a weighted average exercise price of $1.00 per share. As of September 30, 2004, there were also 13,356,572 shares of common stock subject to warrants outstanding, at a weighted average exercise price of $0.13 per share. To the extent any of these options or warrants are exercised, new options are issued under our stock option plans or we issue additional shares of common stock in the future, there will be further dilution to new investors.

SELECTED FINANCIAL DATA

The statements of operations data for the years ended December 31, 2001, 2002 and 2003 and the balance sheet data as of December 31, 2002 and 2003 are derived from our audited financial statements included elsewhere in this prospectus. The statements of operations data for the period from September 26, 2000 (inception) to December 31, 2000 and the balance sheet data as of December 31, 2000 and 2001 have been derived from our audited financial statements not included in this prospectus. We have also included data for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 from our unaudited interim financial statements included elsewhere in this prospectus. You should read this data together with our financial statements and related notes included elsewhere in this prospectus and the information under "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	Period from September 26, 2000 (inception) to December 31, 2000	Years ended December 31,			Six months ended June 30,		Period from September 26, 2000 (inception) to June 30, 2004
		2001	2002	2003	2003	2004	
	(in thousands, except share and per share data)						
Statements of Operations Data:							
Revenues	$ —	$ —	$ —	$ —	$ —	$ 187	$ 187
Cost of revenues	—	—	—	—	—	166	166
Gross profit	—	—	—	—	—	21	21
Operating expenses:							
Research and development	272	952	5,551	4,723	2,229	6,108	17,606
General and administrative	—	1,063	1,462	1,538	707	1,224	5,286
Amortization of employee stock-based compensation:							
Research and development	—	—	—	—	—	14	14
General and administrative	—	—	—	—	—	10	10
Stock-based compensation related to founders' warrants	—	—	—	—	—	19,406	19,406
Total operating expenses	272	2,015	7,013	6,261	2,936	26,762	42,322
Operating loss	(272)	(2,015)	(7,013)	(6,261)	(2,936)	(26,741)	(42,301)
Other income, net	71	220	82	52	24	44	468
Net loss	$ (201)	$ (1,795)	$ (6,931)	$ (6,209)	$ (2,912)	$ (26,697)	$ (41,833)
Basic and diluted net loss per share[1]	$ (0.40)	$ (3.59)	$ (13.86)	$ (12.42)	$ (5.82)	$ (53.39)	
Shares used to compute basic and diluted net loss per share[1]	500,000	500,000	500,000	500,000	500,000	500,000	
Pro forma net loss per common share assuming conversion of preferred stock, basic and diluted[1]				$ (0.37)		$ (0.96)	
Shares used in computing pro forma net loss per common share assuming conversion of preferred stock, basic and diluted[1]				16,778,767		27,946,401	

(1) See Note 1 to our financial statements for an explanation of the method used to calculate the historical and pro forma net loss per share and the number of shares used in the computation of the per share amounts.

(2) As disclosed in Note 9 to our financial statements, in connection with the sale of Series C preferred stock, we will record in the third quarter of 2004 a deemed dividend of $31.3 million and a stock-based compensation charge of $14.7 million.

	As of December 31,				As of June 30, 2004
	2000	2001	2002	2003	
	(in thousands)				
Balance Sheet Data:					
Cash, cash equivalents and marketable securities available-for-sale	$ 5,074	$ 8,054	$ 1,281	$ 5,491	$ 15,191
Working capital	4,847	7,756	876	4,838	14,291
Total assets	5,121	8,379	1,586	5,631	15,632
Deficit accumulated during the development stage	(201)	(1,996)	(8,928)	(15,137)	(41,833)
Total stockholders' equity	4,849	8,054	1,122	4,570	14,459

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion contains predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed under "Risk Factors" and elsewhere in this prospectus. These risks could cause our actual results to differ materially from any future performance suggested below. We undertake no obligation to update these forward-looking statements to reflect events or circumstances arising after the date of this prospectus. You should read this discussion together with the financial statements, related notes and other financial information included elsewhere in this prospectus.

Overview

We are a specialty pharmaceutical company focused on acquiring, developing and commercializing innovative pharmaceutical products for a variety of diseases and conditions. We actively seek to identify and acquire license rights to product candidates with extensive safety and efficacy data that are in late pre-clinical or early clinical development and that address large markets with significant opportunities for improved therapies. To date, we have acquired license rights to four compounds. We currently have one Phase I clinical trial ongoing for a product candidate and anticipate entering into Phase II clinical trials with four other product candidates by the end of the first half of 2005.

We are a development stage company. We have incurred significant net losses since our inception. As of June 30, 2004, our accumulated deficit was approximately $41.8 million, including a $19.4 million non-cash stock-based compensation charge related to founders' warrants. We expect to incur substantial net losses for the next several years as we continue to develop our existing programs, expand our research and development programs and acquire or in-license products, technologies or businesses that are complementary to our own.

Revenues and Cost of Revenues

We have not generated any revenues from licensing, milestones or product sales to date, and we do not expect to generate these revenues within the next 12 to 18 months. Our revenues to date have been generated from a development management contract under which we bill consulting fees and pass-through clinical contract costs. The primary cost associated with our revenue is the clinical contract costs we incur and pass-through to our customer.

Research and Development

Our research and development expenses primarily consist of costs associated with the feasibility, licensing and pre-clinical and clinical development of our four licensed compounds, one of which we are developing for the treatment of two separate indications. These research and development expenses include external costs such as fees paid to consultants and related contract research, and internal costs of compensation and other expenses for research and development personnel, supplies, materials, facility costs and depreciation.

General and Administrative

Our general and administrative expenses primarily consist of salaries and benefits and consulting and professional fees related to our administrative, finance, human resources, legal and internal systems support functions. In addition, general and administrative expenses include insurance and facilities costs.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that

affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements as well as the revenues and expenses during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our significant accounting policies are more fully described in Note 1 to our financial statements appearing at the end of this prospectus. The following accounting policies are important in fully understanding and evaluating our reported financial results.

Stock-Based Compensation

We account for employee stock options and warrants using the intrinsic-value method in accordance with Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees,* and related interpretations and have adopted the disclosure-only provisions of Statement of Financial Accounting Standards No. 123, *Accounting for Stock-Based Compensation*.

Stock-based compensation expense, which is a non-cash charge, results from stock option and warrant issuances at exercise prices below the deemed fair value of the underlying common stock. We recognize this compensation expense on a straight-line basis over the vesting period of the underlying option, generally four years, and, since the warrants are variable, at the time of issuance for warrants and/or each time the estimated fair value of the warrants increase.

We have granted stock options to employees in exchange for services. Given the absence of an active market for our common stock, we are required to estimate the fair value of our common stock based on a variety of company and industry-specific factors for the purpose of measuring the cost of the transaction and properly reflecting it in our financial statements. In connection with the preparation of the financial statements necessary for the filing of our initial public offering, we have reassessed the fair value of our common stock.

We granted certain stock options during the six months ended June 30, 2004 that resulted in deferred stock-based compensation of $1.2 million. Deferred stock compensation represents the difference between the deemed fair value of common stock and the option exercise price at the date of grant. It is recorded as a reduction to stockholders' equity and is amortized as compensation expense over the vesting period of the options, generally four years. The amount of deferred stock-based compensation expensed for the six months ended June 30, 2004 was $24,000. Based on deferred stock-based compensation amounts recorded through June 30, 2004, the total amortization expense for the six months ending December 31, 2004 and the years ending December 31, 2005, 2006, 2007 and 2008 will be $144,000, $288,000, $288,000, $288,000 and $120,000, respectively.

During the six months ended June 30, 2004, pursuant to the anti-dilution provisions of the warrants originally issued in September 2000 to our founders and as a result of the sale of our Series B preferred stock, we adjusted the warrants to provide that our two founders may purchase an aggregate of 7,323,000 shares of our common stock. As a result, we recorded $19.4 million of stock-based compensation expense to reflect the difference between the deemed fair value of the underlying common stock and the warrant exercise price at June 30, 2004 for all warrants issued to date. On September 2, 2004, in conjunction with the sale of our Series C preferred stock, the terms of the warrants were amended in order to fix the number of shares purchasable thereunder to an aggregate of 12,856,572 shares and to remove the anti-dilution provisions. As a result, we expect to record stock-based compensation of $14.7 million based on the estimated fair value of the underlying common stock on September 2, 2004. We otherwise do not anticipate recording any additional stock-based compensation in connection with these warrants.

Recent Accounting Pronouncements

In May 2003, the FASB issued SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity* ("SFAS No. 150"). SFAS No. 150 requires that certain financial instruments, which under previous guidance were accounted for as equity, must now be accounted for as liabilities. The financial instruments affected include mandatorily redeemable stock, certain financial instruments that require or may require the issuer to buy back some of its shares in exchange for cash or other assets and certain obligations that can be settled with shares of stock. SFAS No. 150 is effective for all financial instruments entered into or modified after May 31, 2003 and otherwise is effective the beginning of the first interim period after June 15, 2003. The adoption of SFAS No. 150 did not have a material impact on our financial statements.

Results of Operations

Comparison of the Six Months Ended June 30, 2004 and 2003

Revenues

Our revenue totaled $0.2 million for the six months ended June 30, 2004 from development management services performed under a master services agreement. We had no revenue during the same period in 2003.

Research and Development

Research and development expenses increased to $6.1 million for the six months ended June 30, 2004 from $2.2 million for the comparable period during 2003. This increase primarily was due to:

- external costs related to the licensing of MN-221 and MN-305;
- increased Phase I clinical study costs related to MN-001; and
- increased pre-clinical development costs related to MN-029.

In addition, internal costs for salaries and related personnel costs increased due to an increase in research and development staff. We expect that fees paid to external service providers will continue to increase as we acquire new drug candidates and continue development of our existing drug candidates. We anticipate that our research and development expenses will continue to increase in future periods as we expend additional capital to conduct clinical trials and develop our product candidates.

General and Administrative

General and administrative expense increased to $1.2 million for the six months ended June 30, 2004 from $0.7 million for the comparable period during 2003. This increase primarily was due to increased legal and other professional fees and increased personnel costs as we expanded our general and administrative functions to support our operations. We anticipate increases in general and administrative expenses in future periods as we expand our administrative organization and incur additional costs for insurance and professional fees associated with operating as a public company and to support the future growth of our research and development organization.

Stock-Based Compensation

Stock-based compensation expense totaled $19.4 million for the six months ended June 30, 2004 due to the issuance of warrants at exercise prices below the deemed fair value of our common stock and the amortization of deferred stock-based compensation. We had no issuances of options or warrants during the comparable period in 2003 that required us to record stock-based compensation expense.

Comparison of the Years Ended December 31, 2003, 2002 and 2001

Research and Development

Research and development expense totaled $4.7 million in 2003, compared to $5.6 million in 2002 and $1.0 million in 2001. The $0.9 million decrease from 2002 to 2003 primarily was due to the reduction in discovery and pre-clinical activities as a result of the reduced scope of our store-operated calcium channel, or SOCC, program and a decline in spending on MN-001 as a result of small scale Phase I clinical trials being less costly in 2004 than the formulation and toxicology work in 2003. The decreases were offset by increased spending on MN-029 as we performed substantial pre-clinical activities in preparation for our IND filing in April 2004. The $4.6 million increase from 2001 to 2002 primarily was due to expanded discovery and pre-clinical activities related to our SOCC program and licensing and pre-clinical development of MN-001 and MN-002.

General and Administrative

General and administrative expense totaled $1.5 million in 2003, compared to $1.5 million in 2002 and $1.1 million in 2001. Although the total expense remained constant from 2002 to 2003, several of the underlying account balances fluctuated, including increases in salaries and related costs, consulting fees paid to the chairman of our board of directors, rent and travel, which were offset by decreases in outside consulting and professional fees and depreciation. The $0.4 million increase from 2001 to 2002 primarily was due to consulting fees paid to the chairman of our board of directors, recruiting, public relations and travel expenses.

Other Income, Net

Other income, net is primarily interest income earned on our cash and investment balances and totaled $0.1 million, $0.1 million and $0.2 million for the years ended December 31, 2003, 2002 and 2001, respectively. The change in income amounts for each year primarily was due to fluctuations in our average cash and investment balances and downward interest rate trends.

Liquidity and Capital Resources

Since our inception, our operations have been financed through the private placement of our equity securities. Through June 30, 2004, we received net proceeds of $36.8 million from the sale of shares of preferred stock as follows:

- in October 2000, and again in August 2001, we issued and sold 1,000,000 shares of Series A preferred stock for aggregate net proceeds of $10 million; and
- from March 2003 through May 2004, we issued and sold 291,150 shares of Series B preferred stock for aggregate net proceeds of $26.8 million.

In addition, on September 2, 2004, we issued and sold 27,667,856 shares of Series C preferred stock for aggregate net proceeds of $43.4 million.

As of June 30, 2004, we had $15.2 million in cash and investments as compared to $5.5 million as of December 31, 2003, an increase of $9.7 million. This increase primarily resulted from completion of the sale of our Series B preferred stock. Net cash used in operating activities amounted to $7.0 million for the six months ended June 30, 2004, primarily reflecting the net loss occurring for this period of $26.7 million, offset by non-cash charges for stock-based compensation of $19.4 million. Net cash used in investing activities for the six months ended June 30, 2004 consisted of $0.1 million of capital equipment purchases. Net cash provided by financing activities amounted to $16.9 million for the six months ended June 30, 2004, primarily reflecting the sale of Series B preferred stock.

Net cash used in operating activities totaled $5.9 million in 2003, compared to $6.8 million in 2002 and $1.7 million in 2001. The increase in net cash used in operating activities from 2001 to 2002 primarily was due to the licensing and initiation of development of MN-001 in 2002 and increased research activity related to our SOCC program. The decrease in net cash used in operating activities from 2002 to 2003 primarily was due to increases

related to the initiation of Phase I clinical trials for MN-001, offset by the reduction in the scope of research activity related to our SOCC program.

Net cash used in investing activities from 2001 through 2003 totaled $1.4 million and related to the purchase of marketable securities and the acquisition of capital equipment.

Net cash provided by financing activities totaled $10.0 million in 2003 and $5.0 million in 2001 resulting from the sale of preferred stock. We did not have any financing transactions during 2002.

As of September 30, 2004, our long-term contractual obligations consisted of our facility lease. For the six months ending December 31, 2004 and the years ending December 31, 2005, 2006, 2007 and 2008, we are obligated to make payments of $150,856; $400,392; $435,356; $448,997 and $37,511, respectively.

Our future capital uses and requirements depend on numerous forward-looking factors. These factors include but are not limited to the following:

- the progress of our clinical trials;
- the progress of our pre-clinical development activities;
- our ability to establish and maintain strategic collaborations, including by sub-licensing product candidates;
- the costs involved in enforcing or defending patent claims and other intellectual property rights;
- the costs and timing of regulatory approvals;
- the costs of establishing or expanding manufacturing, sales and distribution capabilities;
- the success of the commercialization of our products; and
- the extent to which we acquire or invest in other products, technologies and businesses.

We believe that our existing cash and cash equivalents, excluding the proceeds from this offering, will be sufficient to meet our projected operating requirements through at least December 31, 2005.

Until we can generate significant cash from our operations, we expect to continue to fund our operations with existing cash resources that primarily were generated from the proceeds of offerings of our equity securities and from equipment and leasehold improvement financing. In addition, we may finance future cash needs through the sale of other equity securities, strategic collaboration agreements and debt financing. However, we may not be successful in obtaining collaboration agreements, or in receiving milestone or royalty payments under those agreements. In addition, we cannot be sure that our existing cash and marketable securities resources will be adequate or that additional financing will be available when needed or that, if available, financing will be obtained on terms favorable to us or our stockholders. Having insufficient funds may require us to delay, scale back or eliminate some or all of our research or development programs or to relinquish greater or all rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise choose. Failure to obtain adequate financing also may adversely affect our ability to operate as a going concern. If we raise additional funds by issuing equity securities, substantial dilution to existing stockholders would likely result. If we raise additional funds by incurring debt financing, the terms of the debt may involve significant cash payment obligations as well as covenants and specific financial ratios that may restrict our ability to operate our business.

Quantitative and Qualitative Disclosure About Market Risk

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term nature of our cash and investments, we believe that we are not subject to any material market risk exposure. Our cash and investments at June 30, 2004 included primarily liquid money market accounts.

BUSINESS

Overview

We are a specialty pharmaceutical company focused on acquiring, developing and commercializing innovative pharmaceutical products for a variety of diseases and conditions. We actively seek to identify and acquire license rights to product candidates that:

- are in late pre-clinical or early clinical development and have extensive safety and efficacy data; and
- address large markets with significant opportunities for improved therapies.

We believe that this approach allows us to move more quickly into the clinical development process in the United States. To date, we have acquired license rights to four compounds. We currently have one Phase I clinical trial ongoing for a product candidate and anticipate entering into Phase II clinical trials with four other product candidates by the end of the first half of 2005.

We intend to continue to build a strong product pipeline by establishing relationships with large and mid-sized North American, European and Japanese biotechnology and pharmaceutical companies. Since our inception, we have established relationships with a number of pharmaceutical companies, including Kissei Pharmaceutical, Kyorin Pharmaceutical and Mitsubishi Pharma Corporation, pursuant to which we have obtained rights to develop and market compounds. We believe the establishment of these relationships in Japan provides us with a competitive advantage in identifying and acquiring compounds from Japanese pharmaceutical companies.

Our development programs follow a dual pathway:

- *Strategic Core Programs*. Our strategic core programs consist of product candidates we intend to retain the rights to through final regulatory approval in the United States and commercialize directly.
- *Partnering Programs*. Our partnering programs consists of product candidates we intend to license to larger pharmaceutical companies after advancing them through Phase II clinical trials and with respect to which we intend to retain co-promotion rights.

We believe this strategy will diversify our development risks by enabling us to acquire a larger portfolio of product candidates, targeting more diverse indications, than other specialty pharmaceutical companies of similar size.

Strategic Core Programs. Our strategic core programs focus on therapeutic needs that are underserved by large pharmaceutical companies. We are targeting potential markets that are of a size attractive to us but which may draw only limited interest from large pharmaceutical companies. We believe that the product candidates in our strategic core program will have limited development costs which will enable us to undertake the entire development and commercialization of these products in the United States. We intend to seek licensing partners for the development and commercialization of these products outside the United States.

Currently our strategic core programs are focused on the urology and obstetrics/gynecology markets. These are markets in which we believe we can pursue regulatory approval and develop a marketing and sales infrastructure in the United States utilizing our own resources and without partnering with larger pharmaceutical companies.

Our existing strategic core programs consist of:

- MN-221 for the treatment of premature labor, for which we intend to file an IND application to permit commencement of Phase II clinical trials in the first half of 2005;
- MN-029 for the treatment of solid tumors, currently in Phase I clinical trials; and
- MN-001 for the treatment of interstitial cystitis, for which we intend to file an IND application to permit commencement of Phase II clinical trials by the end of the first quarter of 2005.

Partnering Programs. Our partnering programs focus on product candidates for larger markets that typically require significantly greater clinical development and commercialization resources than our strategic core programs. We intend to increase the value of the product candidates in our partnering programs by advancing Phase I/II clinical testing to the point where potential partners are willing to make a substantial investment in conducting later-stage clinical trials and further their development and commercialization.

We believe that our partnering programs will allow us to generate revenues at an earlier stage through the licensing of product candidates during the clinical testing process. Our partnering programs currently are focused on asthma and anxiety. Our existing partnering programs consist of:

- MN-001 for the treatment of bronchial asthma; currently anticipated to enter a Phase II clinical trial by the end of 2004; and
- MN-305 for the treatment of anxiety, for which we similarly intend to commence a Phase II clinical trial by the end of the first quarter of 2005.

We have assembled a management team with extensive experience in the pharmaceutical and biotechnology industry, including experience in pre-clinical research, drug substance and product preparation, regulatory affairs, clinical research, marketing and sales and corporate development. We believe that our management team has the expertise necessary for:

- assessing product opportunities;
- acquiring product candidates and compounds;
- advancing products through the clinical and regulatory processes; and
- building product development alliances and bringing products to market.

Our Strategy

Our goal is to become a leader in the development and commercialization of drugs for the treatment of diseases with unmet medical needs. Key elements of our strategy are to:

- *Execute our dual pathway development approach*. We have acquired a variety of product candidates that are based on proven pharmacology but have differentiating characteristics from available treatments. We believe that our dual pathway development approach enables us to diversify our development risks with respect to these product candidates. We intend to advance our existing and future candidates without excessive reliance on any one program and thereby increase our likelihood of long-term success. Moreover, we believe that our dual pathway development approach significantly enhances our ability to generate near-term revenue opportunities through our partnering program, as well as to generate long-term sustained revenue opportunities through our strategic core programs.
- *Continue to expand our pipeline of promising product candidates*. We intend to continue to identify and license product candidates in late pre-clinical or early clinical development. We believe our ability, attributable in particular to the relationships and efforts of our management, to acquire product candidates with high potential and extensive pre-clinical or early clinical data from Japanese pharmaceutical companies is an advantage over other specialty drug development companies in the U.S. market. We are in active negotiations to license additional product candidates from this source. For each licensing candidate, we conduct extensive diligence not only on the patent rights and therapeutic needs addressed, but also on the market opportunities, level of competition and strategic fit with our existing programs. We believe that we will mitigate the risks inherent in drug discovery and development by expanding and further diversifying our pipeline of product candidates.
- *Partner selectively with larger pharmaceutical companies to maximize the commercial potential of our product candidates*. We intend to actively pursue strategic collaborations to draw on the development, regulatory and commercialization expertise of large biotechnology and pharmaceutical partners. We are

already soliciting preliminary indications of interest with respect to our partnering programs. We also continue to seek additional in-licensing opportunities, potential co-marketing partners and potential future acquirors of license rights to our core programs in markets outside the United States. Through these efforts, we are positioning ourselves to realize a return on our investment quickly if the results of our clinical testing programs are favorable.

- *Continue to strengthen our management team*. As we have assembled our existing product candidate portfolio, we have also carefully assembled a management team with extensive experience in all aspects of the drug development process from acquisition through commercialization. We expect to selectively add to this team in the near to mid-term in order to further strengthen our core competencies and enable us to execute our development programs as expeditiously as possible.

Product Development Programs.

Our product development programs address diseases that are not well served by currently available therapies and represent significant commercial opportunities. We believe that our product candidates offer innovative therapeutic approaches that may provide significant advantages relative to current therapies. The following table summarizes our strategic core and partnering programs:

Product candidate	Disease/ Indication	Phase of Development	Licensor	Licensed Territory
Strategic Core Programs				
MN-221	Premature labor	Phase II to commence in first half of 2005; Early Phase II completed in UK by Kissei; U.S. IND in preparation	Kissei Pharmaceutical	Worldwide, except Japan
MN-029	Solid tumor	Phase I ongoing in the U.S.	Angiogene Pharmaceuticals	Worldwide
MN-001	Interstitial cystitis	Phase II to commence in Q1, 2005; U.S. IND in preparation	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan, and South Korea
Partnering Programs				
MN-001	Bronchial asthma	Phase II to commence in Q4, 2004; U.S. IND submitted	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan, and South Korea
MN-305	Generalized Anxiety Disorder	Phase II to commence in Q1, 2005; Early Phase II for Generalized Anxiety Disorder completed by Mitsubishi; Phase II for Major Depressive Disorder completed by Mitsubishi; U.S. IND in effect	Mitsubishi Pharma	Worldwide, except Japan, Singapore, Brunei, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Bangladesh, Pakistan, South Korea, China and Taiwan
Other Program				
Store-operated calcium channel antagonists	Cancer; Inflammatory diseases	Research	RIKEN, University of Tokyo	Worldwide

We typically acquire product candidates with significant pre-clinical and early clinical testing data that has been developed by the licensors outside of the United States. We utilize this data in preparing IND applications and designing additional clinical trials to advance the regulatory approval process in the United States.

Strategic Core Programs

MN-221 for Premature Labor

Disease Overview. Premature labor is caused by the onset of uterine contractions before term and is the leading cause of neonatal mortality and a substantial portion of all birth-related short- and long-term morbidity, according to a November 2002 publication in Obstetrics & Gynecology. Successfully inhibiting premature labor is known to reduce the risk of complications. Despite extensive research into premature labor during the past several decades, the rate of premature births has not changed. According to National Vital Statistics Reports published in December 2003, in each of the years 2002, 2001 and 2000, there were over 4 million live births in the U.S. According to the November 2002 publication in Obstetrics & Gynecology, at least 11% of all births each year in the U.S. and approximately 5-7% of all births in Europe occur before term. According to a recent publication by the U.S. National Institutes of Health, over $4 billion is spent on caring for premature infants each year.

Currently, therapy for premature labor remains targeted at uterine contractions. ß$_2$-adrenergic receptor agonists are widely used as first-line treatments for premature labor. The only FDA-approved treatment for premature labor is ritodrine, a ß$_2$ agonist. However, ritodrine was withdrawn in 1999 from the market due to its side effects. The more widely used treatment for premature labor, terbutaline, another ß$_2$ agonist, is not approved by the FDA for premature labor. Atosiban, an oxytocin antagonist, is available in Europe, but was denied regulatory approval in the U.S. The usefulness of these ß$_2$-adrenergic receptor agonists is often limited by the adverse reactions they produce, including cardiovascular side effects such as heart palpitations. As a result, there is a need for treatments that are effective in reducing the premature birth rate and/or providing for longer gestation, with better safety and tolerability profiles.

MN-221. MN-221 is a novel, highly selective ß$_2$-adrenergic receptor agonist for use in the treatment of premature labor. We have licensed MN-221 from Kissei Pharmaceutical. Pre-clinical pharmacology studies conducted by Kissei Pharmaceutical have shown that MN-221 effectively suppresses spontaneous or drug-induced uterine contractions. The potency of MN-221 in pre-clinical models was greater than that of any of the ß$_2$-adrenergic receptor agonists currently used for the treatment of premature labor. Furthermore, MN-221 is effective in delaying both normal and premature labor in rats and has been shown to cause a marked increase in the bodyweight of rat pups as a result of prevention of premature birth. Moreover, receptor binding studies conducted by Kissei Pharmaceutical suggest that the stimulating action of ß$_2$-adrenergic receptor agonists on the heart, which is a problem with current drugs for treating premature labor, is reduced with MN-221 due to its selectivity for uterine ß$_2$-adrenergic receptors.

To date, pharmacokinetic and safety data has been generated from human experience with MN-221 by a Phase I clinical study in healthy male and female volunteers conducted by Kissei Pharmaceutical in Japan and the U.K. A total of 94 subjects received intravenous infusions of either MN-221 or a placebo. MN-221 was generally well tolerated and no subject was withdrawn due to any adverse event. A pilot double-blind, placebo-controlled Phase II clinical trial of MN-221 was completed in 2004 by Kissei Pharmaceutical in 8 women in premature labor in the U.K. No serious adverse events were observed in this study.

We intend to use a dose-titration schedule to study MN-221 in a larger Phase II clinical trial. We anticipate filing the U.S. IND in late 2004. Phase II testing will commence upon acceptance of the IND by the FDA.

MN-001 for Interstitial Cystitis

Disease Overview. Interstitial cystitis, or IC, is a chronic disease of the bladder characterized by urinary frequency and urgency, night-time urination and pain above the pubic bone. It is widely believed that IC is due to an altered or defective bladder lining and an increased number of activated bladder mast cells, which are specialized cells that release biochemicals that cause inflammation. According to a July 2003 U.S. National Institutes of Health publication by the National Kidney and Urologic Diseases Information Clearinghouse,

approximately 700,000 patients suffer from IC in the United States, 90% of whom are women. We believe that IC is currently underdiagnosed, in part, due to the relative lack of effective treatments. We believe that the market for IC will likely expand with the introduction of effective new treatments.

MN-001. MN-001 is a novel, anti-inflammatory compound for the treatment of IC. In connection with our partnering program, we have collected data relating to the development of MN-001 for bronchial asthma. We have licensed MN-001 from Kyorin Pharmaceutical. The data collected by Kyorin Pharmaceutical provided a strong scientific rationale for evaluating MN-001 as an oral treatment for IC.

Pre-clinical tests conducted by Kyorin Pharmaceutical and us have demonstrated that MN-001 affects many of the downstream mechanisms activated by mast cell degranulation. Mast cell degranulation is the release of naturally-occurring biochemicals that cause inflammation. MN-001 and its primary metabolite, MN-002, have been shown to block the effects of these naturally-occurring inflammatory biochemicals. MN-001 is also a potent inhibitor of pro-inflammatory enzymes and prevents the migration of inflammatory cells to the bladder. MN-001 may reduce bladder hyper-reactivity and inflammation much in the same way that it reduces airway hyper-reactivity and inflammation in models of asthma by blocking these inflammatory mechanisms. We intend to pursue a parallel development strategy for MN-001 in IC and asthma to maximize the benefits of the existing pre-clinical and clinical safety database.

We intend to file a U.S. IND in late 2004 to evaluate MN-001 in a multi-center, placebo-controlled, randomized, double-blind, parallel-group study in patients with IC. Phase II testing will commence upon acceptance of the IND by the FDA.

MN-029 for Solid Tumors

Disease Overview. The American Cancer Society estimates that more than 1.3 million Americans will be diagnosed with cancer in 2004. Of these, more than 700,000 patients will be diagnosed with lung, prostate, colon or breast solid tumor cancers. At least 500,000 are expected ultimately to die from the disease. According to Med Ad News, a leading pharmaceutical industry journal, sales of cancer drugs in 2003 exceeded $13.5 billion, $10 billion of which related to treatment of solid tumors.

Tumor blood vessels are a promising target for cancer therapy. Compounds that act to deprive tumors of their blood supply fall into two classes: angiogenesis inhibitors and vascular targeting agents, or VTAs. Angiogenesis inhibitors block the formation of new blood vessels formed in response to tumor growth. VTAs disrupt blood flow through existing tumor blood vessels by damaging the vessel walls. VTAs have a potential advantage over angiogenesis inhibitors because VTAs work on existing tumor blood vessels and can kill hundreds of cancer cells that depend on that blood supply with even a brief interruption in blood flow, rather than simply slowing tumor growth by blocking new blood vessel formation.

MN-029. MN-029 is a novel, small molecule VTA under development for the treatment of cancer. We have licensed MN-029 from Angiogene Pharmaceuticals. Pre-clinical pharmacology studies conducted by Angiogene Pharmaceuticals and us have assessed the mechanism of action and anti-tumor activity of MN-029. MN-029 has been demonstrated to damage poorly formed tumor blood vessels by weakening tumor blood vessel walls and causing leakage, clotting and eventual vascular shutdown within the tumor. MN-029 is also unique because its mechanism is short-acting and is then quickly cleared from the body, thus reducing the potential for side effects commonly associated with currently available chemotherapies.

We intend to evaluate MN-029 as a method of treatment for solid tumors. The FDA has accepted our U.S. IND to begin Phase I testing of MN-029 in cancer patients. We have commenced an open-label study in patients with advanced solid tumors receiving a 10-minute intravenous infusion every 21 days. Groups of patients will be treated in a dose-escalating manner. This trial is designed to study the safety and metabolism of a single dose of MN-029 when administered intravenously to patients with advanced solid tumors. In addition, this first clinical

study will include data on the effect of MN-029 on tumor blood flow and size. We anticipate initiating a second Phase I clinical trial utilizing a weekly intravenous treatment regimen for three weeks followed by a two-week recovery period.

Partnering Programs

MN-001 for Asthma

Disease Overview. Asthma is a chronic inflammatory disease of the lungs in which symptom control is the key to effective disease management. Both alleviation of acute asthmatic symptoms and blocking of late phase inflammation are important to asthma therapy. The asthma market continues to grow, with approximately 17 million patients in the U.S., according to the FDA. According to a ScripReports publication in July 2002, there are approximately 100 to 150 million asthmatics worldwide. According to Med Ad News, sales of asthma drug treatments exceeded $9 billion in 2003. According to IMS Health Incorporated, a market research organization, inhaled bronchial steroids and leukotriene agents are among the fastest growing therapeutic categories in the United States for asthma, with sales growth of 53% and 26%, respectively, from 2002 to 2003. Worldwide sales of the leading leukotriene antagonist for the treatment of asthma were $2 billion in 2003, a 35% increase over 2002 sales.

MN-001. MN-001 is a novel compound for the treatment of bronchial asthma. We have licensed MN-001 from Kyorin Pharmaceutical. Pre-clinical studies conducted by Kyorin Pharmaceutical and us suggest that MN-001 combines the positive attributes of the leukotriene antagonists and inhaled steroids while maintaining an acceptable safety profile. Pre-clinical animal pharmacology studies have demonstrated that MN-001 inhibits airway hyper-reactivity through a reduction of airway inflammation. MN-001 also has been demonstrated to affect many of the downstream mechanisms activated by mast cell degranulation, which is the release of chemicals that cause inflammation. It is also a potent inhibitor of pro-inflammatory enzymes and prevents migration of inflammatory cells to the lungs. In addition, MN-001 has been demonstrated to be more selective than steroids in affecting cells involved in the inflammatory process and not those involved in cellular immunity.

Four Phase I studies of MN-001 have been completed in a total of 77 healthy volunteers by Kyorin Pharmaceuticals and us. MN-001 was well tolerated up to daily doses of 2000 mg and there were no serious adverse events in any of these studies. In addition, a Phase II open-label study was conducted by Kyorin Pharmaceutical in January 1994 in 112 subjects with mild or moderate asthma at doses up to 300 mg twice a day. The efficacy results in this study were inconclusive in terms of symptomatic improvements at the dosage level. Future clinical studies will evaluate the safety and efficacy of MN-001 in asthma patients at doses greater than 300 mg twice a day.

We intend to conduct a multi-center, placebo-controlled, randomized, double-blind, parallel-group study of MN-001 with a four week treatment in mild to moderate asthmatic subjects. Efficacy will be evaluated using standard measures of respiratory function. We submitted an IND to conduct this investigation to the FDA on June 1, 2004. The FDA has requested some additional animal testing to resolve a safety question before the IND becomes effective. Assuming that the issue is satisfactorily resolved, testing will commence upon acceptance of the IND by the FDA.

We believe that the commercialization of MN-001 will require significant resources. As a result, we intend to partner with pharmaceutical or biotechnology companies, either on a global or territorial level, to complete the development and commercialization of MN-001.

MN-305 for Generalized Anxiety Disorder

Disease Overview. The essential characteristic of Generalized Anxiety Disorder is excessive, uncontrollable worry about everyday events. This constant worry affects daily functioning and can cause severe physical symptoms. Generalized Anxiety Disorder can occur with other anxiety disorders, depressive disorders or

substance abuse. Generalized Anxiety Disorder is often difficult to diagnose because it is not triggered by a specific object or situation. The intensity, duration and frequency of the worry are disproportionate to the issue. As a result, Generalized Anxiety Disorder tends to interfere with the performance of tasks and the ability to concentrate. According to the U.S. National Institute of Mental Health, anxiety disorders affect approximately 19 million American adults, of whom 4 million suffer from Generalized Anxiety Disorder. According to a February 2001 report published by Decision Resources, a market research organization, worldwide sales of prescription drugs for the treatment of anxiety disorders are estimated to increase from just under $2 billion in 1999 to almost $3 billion in 2009. Similarly, worldwide sales of prescription drugs for Generalized Anxiety Disorder are estimated to increase from $900 million in 1999 to $1.3 billion in 2009.

A variety of pharmacologic agents are used to manage patients with anxiety disorders. Benzodiazepines were the early mainstays of the treatment of acute anxiety in the late 1960's. However, their efficacy as a treatment has been inhibited by problems faced by chronic use due to their sedative effects. In the late 1980's, buspirone was introduced and widely used even though it takes effect slowly. Buspirone was well tolerated and safe. During the late 1990's, newer anti-depressants, notably the selective serotonin reuptake inhibitors, or SSRIs, and selective norepinephrine reuptake inhibitors, or SNRIs, were increasingly used to treat anxiety as well. While effective, these anti-depressants result in a variety of undesirable side effects, including agitation, insomnia and sexual dysfunction. Also, the SSRIs and SNRIs may take weeks to exert their beneficial effects.

Generally, patients treated with currently available agents do not attain a measurable degree of relief from their symptoms. We believe that there is a significant opportunity for the introduction of new anxiety reducing drugs. Anxiety disorders are the most prevalent of neuropsychiatric conditions, yet are under-diagnosed and consequently under-treated.

MN-305. MN-305 is a serotonin receptor agonist with high affinity and selectivity for the serotonin 5-HT_{1A} receptor subtype. Drugs that act through this mechanism, such as buspirone, have been proven to be clinically effective in treating Generalized Anxiety Disorder. We licensed MN-305 from Mitsubishi Pharma. MN-305 has been shown to be more potent than buspirone and to show anti-anxiety efficacy in a wide range of pre-clinical models. Pre-clinical and clinical studies conducted by Mitsubishi Pharma also suggest that MN-305 may have a more rapid onset of action than buspirone.

Preliminary evidence of anti-anxiety efficacy has been provided by a six week, open-label, fixed-flexible dose Phase II study conducted by Mitsubishi Pharma in Japan in 61 patients with neurotic disorders. The neurotic disorders included Generalized Anxiety Disorder, panic disorder, agoraphobia, mixed anxiety and depressive disorder and dysthymia. MN-305 was well tolerated, with headaches being the most common side effect in this trial. At the end of the study, the mean Hamilton Rating Scale for Anxiety, or HAM-A, a scale used to measure the intensity of anxiety symptoms, score was reduced by 45.6% compared to the pre-treatment value. Similarly, 53.7% of the patients were rated "Moderately Improved" or better following treatment of MN-305. In addition, several clinical trials conducted by Mitsubishi Pharma in healthy volunteers and patients with anxiety disorders and Major Depressive Disorder have established that MN-305 was well tolerated.

We intend to continue to evaluate the anti-anxiety effects of MN-305 in a Phase II trial in patients with Generalized Anxiety Disorder. The change in the HAM-A score will be assessed as the primary measure of efficacy. The U.S. IND for MN-305 has been transferred to us from Mitsubishi Pharma, enabling us to commence this trial in the first quarter of 2005.

Other Program

Store-Operated Calcium Channel Antagonist Discovery Program

Calcium is involved in a number of key biological processes ranging from control of the structural integrity of membranes to gene expression. Control of these processes are commonly referred to as calcium signaling. Calcium signaling is well known for its regulatory role in many physiological responses. Mutations or functional abnormalities in calcium signaling mechanisms may lead to a wide variety of diseases. We are investigating the

regulation of calcium signaling through store-operated calcium channels, or SOCCs, and inositol-1,4,5-triphosphate, or IP_3, receptors as a novel approach to the treatment of cancer and inflammatory diseases. This research is being conducted in collaboration with Katsuhiko Mikoshiba, M.D., Ph.D., of the University of Tokyo and the Institute of Physical and Chemical Sciences, or RIKEN.

Recent studies support the idea that SOCCs may be responsible for calcium influx during T cell activation. T cells play a major role in the immune system and inflammatory disorders. Similarly, calcium ions also play a central role in the activation and degranulation of tissue mast cells and circulating counterpart basophils. Furthermore, recent studies also suggest that a blockade of SOCCs can slow the proliferation of cancer cells. Thus, modulation of calcium signaling via extracellular SOCCs or intracellular IP_3 receptors may be a novel approach towards identifying new treatments for inflammatory disorders and cancer. We are currently investigating the effects of small molecule modulators of SOCCs on the cells and processes involved in these conditions.

License and Master Services Agreements

Since our inception in 2000, we have executed five license agreements covering our current product candidates. We intend to continue to evaluate and in-license additional compounds, as appropriate. We have also entered into master services agreements with two pharmaceutical companies pursuant to which we provide consulting services. The following is a description of our existing license agreements and currently active master services agreements.

Kissei Pharmaceutical Agreement

On February 25, 2004, we entered into an exclusive license agreement with Kissei Pharmaceutical for the development and commercialization of MN-221. Kissei Pharmaceutical is a fully integrated Japanese pharmaceutical company with 1,469 employees and is listed on the First Section of the Tokyo Stock Exchange. We obtained an exclusive, worldwide (excluding Japan), sublicenseable license to various patent rights and know-how related to MN-221 and other compounds disclosed or included in, or covered by the these patent rights, for all indications, including premature labor. Kissei has an option to enter into a co-promotion agreement with us regarding MN-221. The licensee agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party.

Angiogene Agreement

On June 19, 2002, we entered into an exclusive license agreement with Angiogene Pharmaceutical for the development and commercialization of the ANG-600 series of compounds. Angiogene is a privately-held, British drug discovery company. We obtained a worldwide, exclusive, sublicenseable license to the patent rights and know-how related to the ANG-600 series of compounds disclosed in and included or covered by these patents for all indications. MN-029 is one of the ANG-600 series compounds covered by this license. The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party.

Kyorin Agreement

On March 14, 2002, we entered into an exclusive license agreement with Kyorin Pharmaceutical for the development and commercialization of MN-001. Kyorin Pharmaceutical is a fully integrated Japanese pharmaceutical company with 1,597 employees and is listed on the First Section of the Tokyo Stock Exchange. We obtained an exclusive, worldwide (excluding Japan, China, South Korea, and Taiwan) sublicenseable license to the patent rights and know-how related to MN-001 and its active metabolite disclosed and included or covered by these patents, in all indications except for ophthalmic solution formulations. The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party.

Mitsubishi Agreement

On April 27, 2004, we entered into an exclusive license agreement with Mitsubishi Pharma Corporation for the development and commercialization of MN-305. Mitsubishi Pharma is a fully integrated Japanese pharmaceutical company with 4,175 employees and is listed on the First Section of the Tokyo Stock Exchange. We obtained an exclusive, worldwide (excluding Japan, Singapore, Brunei, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Bangladesh, Pakistan, South Korea, China and Taiwan), sublicenseable license to the patent rights and know-how related to MN-305 and its active metabolite disclosed and included or covered by these patents for all indications except for ophthalmic solution formulations. The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party.

RIKEN Agreement

On June 1, 2003, we entered into an exclusive license with RIKEN, also known as the Institute of Physical and Chemical Science, and Professor Katsuhiko Mikoshiba for the development and commercialization of certain polypeptides and their homologs and analogs. Specifically, we are investigating the regulation of calcium signaling through store-operated calcium channels, or SOCCs, and inositol-1,4,5-triphosphate, or IP_3, receptors as a novel approach to the treatment of cancer and inflammatory diseases. We obtained an exclusive, worldwide sublicenseable license to the patent rights and know-how on IP_3-binding polypeptides and their homologs and analogs in all indications. RIKEN is a non-profit research institute with an annual budget of over $750 million. The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party.

Asahi Kasei Master Services Agreement

On December 1, 2003, we entered into a master services agreement with Asahi Kasei Pharma Corporation, a mid-sized Japanese pharmaceutical company focused on the discovery, development and commercialization of therapeutic agents. We provide Asahi with consulting and contract management services in connection with the development of pharmaceutical products. Under the agreement, we are currently working on one compound. The agreement currently generates consulting revenue for us and may serve as a prelude to in-licensing of the compound currently being tested and other Asahi compounds.

The master services agreement may be terminated by either party following an uncured default of its material obligations under the agreement. Either party may terminate the agreement upon three months' written notice. In addition, Asahi may terminate any project-specific addendum to the agreement immediately at any time upon written notice.

Argenes Master Services Agreement

On June 25, 2004, we entered into a master services agreement with Argenes Inc., a mid-sized Japanese pharmaceutical company focused on the discovery, development and commercialization of therapeutic agents. We provide Argenes with consulting and contract management services in connection with the development of pharmaceutical products. Under the agreement, we are currently working on one compound. The agreement may serve as a prelude to in-licensing of the compound currently being tested and other Argenes compounds.

The master services agreement may be terminated by either party following an uncured default of its material obligations under the agreement. Either party may terminate the agreement upon three months' written notice. In addition, Argenes may terminate any project-specific addendum to the agreement immediately at any time upon written notice.

Sales and Marketing

We currently have no marketing and sales capability. Within the United States, we intend to develop a specialty product-driven marketing and sales organization to promote our strategic core program products, as

well as to co-promote products from our partnering programs. The size and other features of our marketing and sales organization will be influenced by the timing of regulatory approvals for our products, the willingness of our partners to agree to co-promotion and the investment involved.

We believe that a two-stage strategy for the development of a marketing and sales capability is desirable. Initially, we intend to utilize a contract sales organization, or CSO, to provide the necessary field sales management and representation for the promotion of the first core product which is approved for marketing and distribution. The CSO's field personnel will be managed by our own marketing, sales management and sales support staff, which will be responsible for developing all promotional and training materials, devising advertising campaigns, creating medical education materials and programs and constructing databases for territory and customer management. Our marketing and sales organization, which will be in place one year prior to market introduction of our core products, will also be responsible for all pre-launch activities, mainly the preparation of materials previously described.

One year after the commercial launch of our first product, the second stage of the strategy will evolve, as we directly employ the CSO field personnel. We will then have the flexibility to expand and re-deploy the sales organization as needed. Working with the CSO initially and independently thereafter, we will ensure that the sales force and its management will be experienced and fully familiar with selling to specialists and the hospital environment. We also intend to provide appropriate sales force coverage for managed care organizations, government and institutional accounts and opinion-leading physicians.

As new products are approved for marketing, either from our strategic core programs or from the partnering programs as a result of co-promotion agreements, we may choose to increase our marketing and sales capabilities. Through co-promotion, for example, we may have the option of selling to different physician specialties. It is possible that through our continuing emphasis on in-licensing, additional products will be added to our strategic core programs and/or partnering programs that will afford selling opportunities. We intend to seek product co-promotion opportunities outside of our strategic core and partnering programs to further strengthen our marketing and sales organization.

Manufacturing

We rely on third parties to manufacture bulk compounds and finished investigational medicines for research, development, pre-clinical and clinical trials. We currently engage Torcan Chemical and Regis Technologies for the manufacture of small-scale batches of MN-001 and MN-029 for clinical trials, respectively. We currently engage Patheon to manufacture finished investigational preparations of MN-001, MN-305 and MN-221 for use in clinical trials. We currently engage Fulcrum Pharma Developments to manufacture finished investigational preparations of MN-029 for use in clinical trials. We expect to continue to rely on third parties for the manufacture and distribution of products approved for commercial sale. Drugs must be manufactured in facilities and by processes that comply with the FDA and other regulations. Our third-party manufacturers and distributors are also subject to extensive governmental regulation. The FDA mandates that drugs be manufactured, packaged and labeled in conformity with cGMP. In complying with cGMP regulations, manufacturers must continue to expend time, money and effort in production, record keeping and quality control to ensure that products they produce meet applicable specifications and other requirements to ensure product safety and efficacy.

We believe that there are several manufacturing sources available on commercially reasonable terms to meet our clinical and any future commercial production requirements.

Under each of our agreements with our third-party manufacturers, the manufacturers:

- are required to supply products to us based on purchase orders we provide to them;
- provide representations and warranties regarding the compliance with cGMP of the products they make for us;

- are required to operate their facilities in compliance with all legal and regulatory requirements; and
- are permitted to terminate the agreement only in the event that we materially breach the agreement or become insolvent.

Intellectual Property

In general, we seek to procure patent protection for our anticipated products, or obtain such protection from the relevant patents owned by our licensors. To date we have rights under several patents, issued both in the United States or outside the United States, and numerous pending patent applications throughout most of the countries of the industrialized world. Such patents and pending patent applications contain claims directed to, among other things, compounds, compositions, methods of use and/or methods of manufacture. The following is a description of our intellectual property rights:

MN-221

We hold an exclusive, worldwide sublicenseable license, excluding Japan, from Kissei Pharmaceutical to patents and pending patent applications related to MN-221, which covers compositions of matter and uses of MN-221. A U.S. composition of matter patent was issued in October 2000. Corresponding composition patents are issued in many European and Asian countries. An additional use patent application is pending worldwide. The composition of matter patent is set to expire no earlier than February 2014. Extension of the patent's term might be available under the patent term restoration provisions of the Hatch-Waxman Act.

MN-001

We hold an exclusive, worldwide sublicenseable license, excluding Japan, China, South Korea and Taiwan, from Kyorin Pharmaceutical to patents related to MN-001, covering compositions of matter of MN-001 and its active metabolite, MN-002. A U.S. composition of matter patent for MN-001 was issued in January 1991 (set to expire on February 23, 2009) and in March 1994 for MN-002 (set to expire on December 30, 2011). Corresponding composition patents are issued in many European and Asian countries. Additional composition, use and process patent applications are pending worldwide. In addition to any proprietary rights provided by these patents, we intend to rely on the provisions of the Hatch-Waxman Act to obtain a period of marketing exclusivity in the United States if the FDA approves MN-001 for marketing in the United States, although there is no assurance market exclusivity will be granted.

MN-029

We hold an exclusive, worldwide sublicenseable license from Angiogene Pharmaceuticals to patents related to MN-029, covering compositions of matter of MN-029 and its analogs known as the ANG-600 series of compounds. A U.S. composition of matter patent covering MN-029 was issued in November 2003 (set to expire on January 14, 2020). Corresponding composition patents are pending in the rest of the world. Additional methods of use patent applications are pending worldwide.

MN-305

We hold an exclusive, worldwide sublicenseable license, excluding Japan, Singapore, Brunei, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Bangladesh, Pakistan, South Korea, China and Taiwan, for MN-305 from Mitsubishi Pharma Corporation. A U.S. composition of matter patent covering MN-305 was issued in December 1992 (set to expire on March 14, 2011). Corresponding composition patents are issued in most of the European countries and in Canada. An additional three methods of use patents are also issued in the United States and major European countries. In the United States, these additional patents are set to expire in October 2016, May 2018 and August 2018, respectively. In addition to any proprietary rights provided by these patents, we intend to rely on the provisions of the Hatch-Waxman Act to obtain a period of marketing exclusivity in the United States, if the FDA approves the marketing of MN-305, although there is no assurance that market exclusivity will be granted.

IP_3 binding polypeptides

We hold an exclusive, worldwide sublicenseable license to patents, patent applications and know-how related to IP_3-binding polypeptides from RIKEN and Professor Katsuhiko Mikoshiba. A U.S. composition of matter patent was issued in October 2002. Corresponding patent applications are pending in the rest of the world. The U.S. patent, which is directed to isolated nucleic acids, recombinant vectors, transformants, and methods of producing polypeptides, is set to expire in August 2019.

Our proposed commercial activities may conflict with patents, which have been or may be granted to competitors, universities and/or others. Some third parties could bring legal action against us, our licensors or our sublicensees claiming patent infringement, and could seek damages or enjoin manufacturing and marketing of the affected product or its use or the use of a process for the manufacturing of such products. If any such actions were to be successful, in addition to any potential liability for indemnification, damages and attorneys' fees in certain cases, we could be required to obtain a license, which may not be available, in order to continue to manufacture, use or market the affected product. We also rely upon unpatented proprietary technology because, in some cases, our interest would be better served by reliance on trade secrets or confidentiality agreements than by patents. However, others may independently develop substantially equivalent proprietary information and techniques or gain access to or disclose such proprietary technology. We may not be able to meaningfully protect our rights in such unpatented proprietary technology. We may also conduct research on other pharmaceutical compounds or technologies, the rights to which may be held by, or be subject to patent rights of, third parties. Accordingly, if products based on such research are commercialized, such commercial activities may infringe patents or other rights, which may require us to obtain a license to such patents or other rights.

There can be no assurance that patent applications filed by us or others, in which we have an interest as assignee, licensee or prospective licensee, will result in patents being granted or that, if granted, any of such patents will afford protection against competitors with similar technology or products, or could not be circumvented or challenged. In addition, if we develop certain products that are not covered by any patents, we will be dependent on obtaining market exclusivity under the data exclusivity provisions of the Hatch-Waxman Act for such products. If we are unable to obtain strong proprietary rights protection for our products after obtaining regulatory clearance, competitors may be able to market competing generic products by taking advantage of an abbreviated procedure for obtaining regulatory clearance, including the ability to demonstrate equivalency to our product(s) without being required to conduct lengthy clinical trials. Our license agreements provide for reduced royalties, or, in some cases, foregone royalties in the event of generic competition.

Government Regulation

Government authorities in the United States and in other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, promotion, advertising, distribution, marketing, and export and import of pharmaceutical products such as those we are developing. Failure to comply with applicable requirements, both before and after approval, may subject us to administrative and judicial sanctions, such as a delay in approving or refusal to approve pending applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, and/or criminal prosecution. Our drug candidates may prove not to be safe or effective, and may not receive regulatory approvals or be successfully commercialized.

U.S. Regulatory Approval. In the United States, drugs and drug testing are regulated by the FDA under the Food, Drug and Cosmetic Act, as well as state and local government authorities. Before our products may be marketed in the United States, they must be approved by the FDA. Our product candidates are in the early stages of testing and none has been approved. The steps required before a drug can be approved generally involve the following:

- pre-clinical laboratory and animal tests performed under the FDA's Good Laboratory Practices regulations;

- submission and acceptance of IND application, which must become effective before clinical trials may begin in the United States;
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug candidate in our intended use;
- development of manufacturing processes which conform to FDA-mandated cGMPs and completion of our FDA inspection to assess compliance; and
- FDA review and approval of a New Drug Application, or NDA.

The testing and approval process requires substantial time, effort, and financial resources. We cannot be certain that any approval will be granted on a timely basis, if at all.

Pre-clinical tests. Pre-clinical tests include laboratory evaluation of the drug candidate, its chemistry, formulation and stability, as well as animal studies to assess the potential safety and efficacy of the drug candidate. The results of the pre-clinical tests, together with manufacturing information, analytical data and other available information about the drug candidate, are submitted to the FDA as part of an IND application. Pre-clinical tests and studies can take several years to complete, and despite completion of those tests and studies the FDA may not permit clinical testing to begin.

The IND Process. An IND application must be effective to administer an investigational drug to humans. An IND must be effective prior to interstate shipment and administration of any new drug that is not the subject of an approved NDA. The FDA requires a 30-day waiting period after the filing of each IND application before clinical trials may begin. This waiting period is designed to allow the FDA to review the IND application to determine whether human research subjects will be exposed to unreasonable health risks. At any time during this 30-day period or at any time thereafter, the FDA may raise concerns or questions about the conduct of the trials as outlined in the IND application and impose a clinical hold. In this case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin or continue. The IND application process may become extremely costly and substantially delay development of our products. Moreover, positive results in pre-clinical tests will not necessarily indicate positive results in clinical trials.

Prior to initiation of clinical studies, an independent Institutional Review Board, or IRB, at each medical site proposing to conduct the clinical trials must review and approve each study protocol and study subjects must provide informed consent.

Clinical Trials. Human clinical trials are typically conducted in three sequential phases that may overlap:

- Phase I: The drug is initially introduced into healthy human subjects or patients and tested for safety, dosage tolerance, absorption, distribution, excretion and metabolism.
- Phase II: The drug is introduced into a limited patient population to: assess the efficacy of the drug in specific, targeted indications; assess dosage tolerance and optimal dosage, and identify possible adverse effects and safety risks.
- Phase III: These are commonly referred to as pivotal studies. If a compound is found to have an acceptable safety profile and to be potentially effective in Phase II trials, new clinical trials will be initiated to further demonstrate clinical efficacy and safety within an expanded and diverse patient population at geographically dispersed clinical study sites.

We cannot be certain that we will successfully complete Phase I, Phase II or Phase III testing of our drug candidates within any specific time period, if at all. Clinical testing must meet requirements for the IRB, oversight, informed consent and good clinical practices. The FDA and the IRB at each institution at which a clinical trial is being performed, may suspend a clinical trial at any time for various reasons, including a belief that the subjects are being exposed to an unacceptable health risk.

The NDA Process. If clinical trials are successful, the next step in the drug regulatory approval process is the preparation and submission to the FDA of an NDA. The NDA is the vehicle through which drug sponsors formally propose that the FDA approve a new pharmaceutical product for marketing and sale in the United States. The NDA must contain a description of the manufacturing process and quality control methods, as well as results of pre-clinical tests, toxicology studies, clinical trials and proposed labeling, among other things. A substantial user fee must also be paid with the NDA, unless an exemption applies. Every new drug must be the subject of an approved NDA before U.S. commercialization.

Upon submission of the NDA, the FDA will make a threshold determination of whether the application is sufficiently complete to permit review, and if not will issue a refuse to file letter. If the application is accepted for filing, the FDA will attempt to review and take action on the application in accordance with performance goal commitments the FDA has made in connection with the user fee law. These timing commitments will vary depending on whether an NDA is for a priority drug or not, and in any event are not a guarantee that an application will be approved or even acted upon by any specific deadline. The review process is often significantly extended by FDA requests for additional information or clarification. The FDA may refer the NDA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved, but the FDA is not bound by the recommendation of an advisory committee. The FDA may deny or delay approval of applications that do not meet applicable regulatory criteria or if the FDA determines that the clinical data do not adequately establish the safety and efficacy of the drug. In addition, the FDA may approve a drug candidate subject to the completion of post-marketing studies, referred to as Phase IV trials, to monitor the effect of the approved product. The FDA may also grant approval with restrictive product labeling, or may impose other restrictions on marketing or distribution such as the adoption of a special risk management plan.

Manufacturing and Post-Marketing Requirements. Once the FDA approves a product, we and our third-party manufacturers are required to comply with a number of post-approval requirements. For example, certain changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims are subject to future FDA review and approval. Advertising and other promotional material must comply with FDA requirements and special requirements apply to any drug samples that are distributed in accordance with the Prescription Drug Marketing Act. The NDA holders and manufacturers of approved products will be subject to continual review and periodic inspections by the FDA and other authorities where applicable, and must comply with ongoing requirements, including the FDA's cGMP requirements. Once the FDA approves a product, a manufacturer must provide certain updated safety and efficacy information, submit copies of promotional materials to the FDA periodically, and make certain other required reports. Product approvals may be withdrawn if compliance with regulatory requirements is not maintained or if problems concerning safety or efficacy of the product occur following approval. Because we intend to contract with third parties for manufacturing of our products, our ability to control third-party compliance with FDA requirements will be limited to contractual remedies and rights of inspection. Failure of third-party manufacturers to comply with cGMPs or other FDA requirements applicable to our products may result in, among other things, total or partial suspension of production, failure of the government to grant approval for marketing, and withdrawal, suspension, or revocation of marketing approvals.

The FDA's policies may change and additional government regulations may be promulgated which could prevent or delay regulatory approval of our potential products. Moreover, increased attention to the containment of health care costs in the U.S. and in foreign markets could result in new government regulations that could have a material adverse effect on our business. We cannot predict the likelihood, nature or extent of adverse governmental regulation that might arise from future legislative or administrative action, either in the United States or abroad.

We are also subject to various laws and regulations regarding laboratory practices, the experimental use of animals and the use and disposal of hazardous or potentially hazardous substances in connection with our research.

Foreign Regulatory Approval. We will have to complete approval processes, similar or related to the U.S. approval processes, in virtually every foreign market for our products in order to conduct clinical or pre-clinical

research and to commercialize our drug candidates in those countries. The approval procedures and the time required for approvals vary from country to country and may involve additional testing. Foreign approvals may not be granted on a timely basis, or at all. In addition, regulatory approval of prices is required in most countries other than the United States. We face the risk that the resulting prices would be insufficient to generate an acceptable return to us or our collaborators.

Similar to the U.S. regulatory framework, the various phases of pre-clinical and clinical research are subject to significant regulatory controls within the European Union. Variations among national regimes exist. However, most jurisdictions require regulatory and institutional review board approval of interventional clinical trials. Most European regulators also require the submission of adverse event reports during a study and a copy of the final study report.

Under European Union regulatory systems, marketing authorizations may be submitted either under a centralized or decentralized procedure. The centralized procedure is currently mandatory for products developed by means of a biotechnological process and optional for new active substances and other "innovative medicinal products with novel characteristics." It provides for the grant of a single marketing authorization that is valid for all European Union member states. The decentralized procedure provides for mutual recognition of national approval decisions. Under this procedure, the holder of a national marketing authorization may submit applications in other European Union member states, requesting them to mutually recognize the marketing authorization already granted. Within ninety days of receiving the applications and assessment report, each member state must decide whether to recognize the existing approval.

Where possible, we will strive to choose the European regulatory filing route that will most rapidly enable us to obtain the needed regulatory approvals. However, the chosen regulatory strategy may not secure regulatory approvals or approvals of the chosen product indications. In addition, these approvals, if obtained, may take longer than anticipated.

Other Regulatory Matters. In the United States, our manufacturing, sales, promotion, and other activities following any product approval are subject to regulation by regulatory authorities in addition to the FDA, including the Federal Trade Commission, the Department of Justice, the Centers for Medicare & Medicaid Services, other divisions of the Department of Health and Human Services, and state and local governments. Among other laws and requirements, our sales, marketing and scientific/educational programs will need to comply with the anti-kickback provisions of the Social Security Act, the False Claims Act and similar state laws. Our pricing and rebate programs will need to comply with pricing and reimbursement rules, including the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply.

All of our activities are potentially subject to federal and state consumer protection and unfair competition laws. Finally, certain jurisdictions have other trade regulations from time to time to which our business is subject such as technology or environmental export controls and political trade embargoes.

Competition

The development and commercialization of new drugs is competitive and we will face competition from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. Our competitors may develop or market products or other novel technologies that are more effective, safer or less costly than any that have been or are being developed by us, or may obtain regulatory approval for their products more rapidly than we may obtain approval for ours.

The acquisition or licensing of pharmaceutical products is also very competitive, and a number of more established companies, which have acknowledged strategies to license or acquire products, may have competitive advantages as may other emerging companies taking similar or different approaches to product acquisitions. In

addition, a number of established research-based pharmaceutical and biotechnology companies may acquire products in late stages of development to augment their internal product lines. These established companies may have a competitive advantage over us due to their size, cash flows and institutional experience.

Many of our competitors will have substantially greater financial, technical and human resources than we have. Additional mergers and acquisitions in the pharmaceutical industry may result in even more resources being concentrated in our competitors. Competition may increase further as a result of advances made in the commercial applicability of technologies and greater availability of capital for investment in these fields. Our success will be based in part on our ability to build and actively manage a portfolio of drugs that addresses unmet medical needs and create value in patient therapy.

Employees

We have succeeded in bringing together an experienced and cohesive management and support team, with core competencies in general management, clinical development, regulatory affairs and corporate development. As of September 15, 2004, we had 15 full-time employees, five of whom hold Ph.D.s, M.D.s or equivalent degrees. A total of seven employees were engaged in research and development, three were in corporate development and five were in administration and finance. We believe that our relations with our employees are good and we have no history of work stoppages.

Facilities

We lease approximately 11,375 square feet of office space at our headquarters at 4350 La Jolla Village Drive in San Diego, California. We believe that our current facilities are adequate for our needs for the near future and that, as it is needed, suitable additional space will be available to accommodate expansion of our operations on commercially reasonable terms.

Litigation

We are not currently a party to any material legal proceedings in the federal, provincial, or state courts of any jurisdiction.

MANAGEMENT

Executive Officers, Officers and Directors

Our executive officers, officers and directors and their ages as of September 30, 2004 were as follows:

Name	Age	Position(s)
Takashi Kiyoizumi, M.D., Ph.D.	47	President, Chief Executive Officer and Director
Brian Anderson	57	Executive Vice President, Corporate Development
Richard E. Gammans, Ph.D.	55	Executive Vice President, Clinical Research
Kenneth W. Locke, Ph.D.	47	Senior Vice President, Portfolio Management
Mark Lotz	52	Vice President, Regulatory Affairs
Joji Suzuki, M.D., Ph.D.	42	Vice President, Finance
Yuichi Iwaki, M.D., Ph.D.	55	Chairman of the Board and Director
John K. A. Prendergast, Ph.D.[(1)(2)(3)]	50	Director
Daniel Vapnek, Ph.D.[(1)(2)(3)]	65	Director
Hideki Nagao[(1)(2)(3)]	48	Director

(1) Member of the compensation committee.
(2) Member of the audit committee.
(3) Member of the nominating and corporate governance committee.

Takashi Kiyoizumi, M.D., Ph.D. originally co-founded MediciNova with Dr. Iwaki and has served as our President and Chief Executive Officer and member of the Board of Director since our inception. From 2000 to 2002, Dr. Kiyoizumi served as President and Chief Executive Officer of Tanabe Research Laboratories U.S.A., Inc. From 1991, Dr. Kiyoizumi held corporate management positions at ImmuLogic Pharmaceutical Corporation and Interneuron Pharmaceuticals, Inc., where he was most recently the Senior Vice President of Business Development and Strategic Planning from 1998 to 2000. From 1981 prior to his tenure in the biopharmaceutical industry, Dr. Kiyoizumi was an academic physician and a board-certified plastic and reconstructive surgeon. Dr. Kiyoizumi earned his M.D. and Ph.D. degrees from the Keio University School of Medicine in Tokyo, where he was an Assistant Professor of Plastic and Reconstructive Surgery. He holds a Master of Science in Management from the Sloan School of Management at Massachusetts Institute of Technology.

Brian Anderson has served as our Executive Vice President, Corporate Development since April 2004, when he joined MediciNova. Previously he was an advisor and consultant to the investor relations firm, Montridge, LLC. From 1998 to 2002, Mr. Anderson was President and CEO of Cognetix, Inc., a privately held biotechnology company in Salt Lake City, Utah. Earlier, Mr. Anderson was the Senior Vice President of Marketing and Commercial Development at Interneuron Pharmaceuticals and from 1987 to 1995 he held various executive positions in marketing, business development and strategic planning at Bristol-Myers Squibb. He began his career in the pharmaceutical industry with the Upjohn Company of Canada, where he progressed through a series of sales, sales management and marketing management assignments. Mr. Anderson is a graduate of the University of Manitoba. He sits on the boards of two biotechnology companies, Oragenics, Inc. and Omni Genetics, Inc.

Richard E. Gammans, Ph.D. has served as our Executive Vice President, Clinical Research since June 2004 when he joined MediciNova. Prior to joining us, he was Executive Vice President, Research and Development at Incara Pharmaceuticals. From 1994 to 2000 he was Senior Vice President, Clinical Research at Interneuron Pharmaceuticals, where he directed the company's clinical development programs in stroke and anxiety disorders. Prior to joining Interneuron, Dr. Gammans spent 14 years at Bristol-Myers Squibb, where he began as a Senior Scientist and progressed through a series of increasingly more senior positions in toxicology,

pharmacokinetics and clinical pharmacology, to assume the position of Director, CNS Clinical Research and responsibility as Global Project Director for the anti-depressant, Serzone. Dr. Gammans received his Ph.D. from the University of Georgia School of Pharmacy and holds an M.S. in Management from Purdue University.

Kenneth W. Locke, Ph.D. has served as our Senior Vice President, Portfolio Management since June 2004. Dr. Locke has worked for MediciNova since inception holding progressively positions of Vice President, Research and Senior Vice President, Development Operations & Drug Discovery. Dr. Locke was formerly Vice President of Research at Tanabe Research Laboratories U.S.A., Inc. where he worked since June 2000. Prior to joining Tanabe Research Laboratories, Dr. Locke served as Executive Director, Pre-clinical Development at Interneuron Pharmaceuticals, Inc. He joined Interneuron in 1989 as Manager, Behavioral Neuroscience, taking on positions of increasing responsibility over the next 11 years. Earlier in his career, Dr. Locke headed Hoechst-Roussel Pharmaceuticals' laboratories for analgesics and anti-inflammatory research as well as Alzheimer's disease. Dr. Locke holds an Adjunct Associate Professorship of Pharmacology at Massachusetts College of Pharmacy and Allied Health Sciences. Dr. Locke earned an M.S. and Ph.D. in Pharmacology from Emory University School of Medicine.

Mark Lotz has served as our Vice President, Regulatory Affairs since February 2004. Before joining MediciNova, Mr. Lotz was Vice President, Regulatory Affairs with Isis Pharmaceuticals in San Diego, California, where he led both regulatory and quality assurance activities. Prior to that, he spent time in positions of growing authority with Amylin Pharmaceuticals and Abbott Laboratories. He also spent two years as a hospital staff pharmacist in the Midwest. Mr. Lotz holds a Bachelor of Science degree in pharmacy from the St. Louis College of Pharmacy.

Joji Suzuki, M.D., Ph.D. served as our Senior Director, Finance from May 2004 to September 2004 and is now our Vice President, Finance. Dr. Suzuki was formerly Senior Analyst of HSBC Securities Ltd. where he was responsible for the pharmaceutical sector in the Japanese equity market since September 2001. Prior to joining HSBC Securities, he served as Manager, Portfolio Management at the Corporate Planning Office of Nippon Roche K.K., a subsidiary of F. Hoffmann-La Roche, where he was engaged in various R&D projects and corporate decision-making as a member of the Portfolio Strategy Board since January 1999. Dr. Suzuki began his career as a clinician at Keio University School of Medicine in 1988 where he earned his M.D. and Ph.D. He practiced in the arena of Plastic Surgery and Orthopedic Surgery, and researched Healthcare Economics. He holds a Master of Business Administration from INSEAD.

Yuichi Iwaki, M.D., Ph.D. originally co-founded MediciNova with Dr. Kiyoizumi and has served as our Chairman of the Board of Directors since our inception. Dr. Iwaki holds three professorships at the University of Southern California School of Medicine in the Departments of Urology, Surgery and Pathology and has been Director of the Transplantation Immunology and Immunogenetic Laboratory since 1992. He is also a visiting professor at the Nihon University School of Medicine, Kyushu University, Tokyo Women's Medical School in Japan, and the University of California, Irvine School of Medicine. Prior to joining the faculty at the University of Southern California School of Medicine, Dr. Iwaki held professorships at the University of Pittsburgh School of Medicine in the departments of Surgery and Pathology from 1989 through 1991. He received both his M.D. and Ph.D. degrees from Sapporo Medical School in Sapporo, Japan. Dr. Iwaki is the author of 200 peer-reviewed publications and more than 40 books. He has been advising pharmaceutical companies and venture capital funds regarding research and investment strategies for over 20 years and is a board member of several biotechnology companies, including Avigen, Inc.

John K.A. Prendergast, Ph.D., has served as a director of MediciNova since September 2004. Since 1993, he has served as President of SummerCloud Bay Inc., an independent consulting firm providing services to the biotechnology industry. Dr. Prendergast is a co-founder and director of Avigen, Inc., a Nasdaq listed company, where currently he is a chairman of the Audit, Governance and Compensation Committees. Dr. Prendergast is currently Chairman of the Board of Directors of Palatin Technologies, Inc. and AVAX Technologies, Inc., an over-the-counter traded company, and is currently serving as the Executive Chairman of the board of directors of Antyra, Inc., a privately held biopharmaceutical company. Dr. Prendergast received a M.Sc. and Ph.D. degrees

from the University of New South Wales, Sydney, Australia and a C.S.S. in Administration and Management from Harvard University.

Daniel Vapnek, Ph.D. has served as a director of MediciNova since September 2004. Dr. Vapnek is currently an adjunct professor at the University of California, Santa Barbara. From 1981 through 1999, Dr. Vapnek held various senior research positions at Amgen Inc., a biopharmaceutical company, including Senior Vice President, Research from 1988 to 1996 and Senior Consultant from 1996 to 1999. Prior to joining Amgen, Dr. Vapnek held various professorial positions at the University of Georgia from 1972 to 1981, including Professor of Molecular and Population Genetics, and served as a research associate at the Yale University School of Medicine from 1970 to 1972. Dr. Vapnek is CEO and chairman of the board of directors of Protein Pathways, Inc. and is a director of BioArray Solutions, Inc. and Avigen, Inc., all of which are biotechnology companies. Dr. Vapnek received a Ph.D. in Microbiology and a B.S. in Zoology from the University of Miami.

Hideki Nagao has served as a director of MediciNova since September 2004. Since 1980, he has been employed by the Development Bank of Japan. Mr. Nagao is currently Director General, Department for Technology and Growth Business at Development Bank of Japan. He graduated from the Faculty of Law of Tokyo University.

Board of Directors

Our board of directors currently consists of five members. All directors are elected to hold office until their successors have been elected and qualified or until their earlier death, resignation, disqualification or removal. Effective upon the date of this prospectus, we will divide the terms of office of the directors into three classes:

- Class I, whose term will expire at the annual meeting of stockholders to be held in 2005;
- Class II, whose term will expire at the annul meeting of stockholders to be held in 2006; and
- Class III, whose term will expire at the annual meeting of stockholders to be held in 2007.

Upon the date of this prospectus, Class I will consist of , Class II will consist of and Class III will consist of . Each of Messrs. Prendergast, Vapnek and Nagao are independent directors as defined by Rule 4200(a)(15) of the National Association of Securities Dealers listing standards.

At each annual meeting of stockholders after the initial classification, the successors to directors whose terms will then expire will serve from the time of election and qualification until the third annual meeting following election and until their successors are duly elected and qualified. The authorized number of directors may be changed by resolution of the board. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. Vacancies on the board can be filled by resolution of the board of directors. The classification of the board of directors may have the effect of delaying or preventing changes in control or management of our company.

Board Committees

Our board of directors has an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and responsibilities described below. As of the date of this prospectus, all of the members of our committees will be independent directors under the rules of the SEC and The Nasdaq Stock Market. Although we are not currently subject to the rules of The Nasdaq Stock Market, we intend to comply with Nasdaq's rules of board independence and governance in connection with our listing on the Mothers Market of the Tokyo Stock Exchange.

Audit Committee. As of the date of this prospectus, the audit committee will consist of Messrs. Prendergast, Vapnek and Nagao, with Dr. Prendergast serving as the Chairman of the committee. The audit committee provides assistance to the board of directors in fulfilling its legal and fiduciary obligations in matters involving

our accounting, auditing, financial reporting, internal control and legal compliance functions by approving the services performed by our independent accountants and reviewing their reports regarding our accounting practices and systems of internal accounting controls. The audit committee will be responsible for the appointment, compensation, retention and oversight of our independent accountants and will ensure that the accountants are independent of management. Dr. Prendergast is our audit committee financial expert as currently defined under the rules of the SEC.

Compensation Committee. As of the date of this prospectus, the compensation committee will consist of Messrs. Prendergast, Vapnek and Nagao, each of whom is a non-management member of our board of directors, with Dr. Prendergast serving as the Chairman of the committee. The compensation committee determines our general compensation policies and the compensation provided to our directors and officers. The compensation committee also reviews and determines bonuses for our officers and other employees. In addition, the compensation committee reviews and determines equity based compensation for our directors, officers, employees and consultants and administers our stock option plans and employee stock purchase plan.

Nominating and Corporate Governance Committee. As of the date of this prospectus, the nominating and corporate governance committee will consist of Messrs. Prendergast, Vapnek and Nagao, with Dr. Prendergast serving as the Chairman of the committee. The nominating and corporate governance committee is responsible for making recommendations to the board of directors regarding candidates for directorships and the size and composition of the board and for overseeing our corporate governance guidelines and reporting and making recommendations to the board concerning corporate governance matters.

Director Compensation

Prior to 2004, we have not paid our directors for their services as directors. During September 2004, each of Messrs. Prendergast and Vapnek received compensation in the amount of $20,000 for service as a director. None of our other directors have received compensation for their services as directors. Mr. Nagao is prohibited by his employment arrangements with the Development Bank of Japan from receiving any compensation for his services as a member of our board.

Following the completion of this offering, we intend to pay our non-employee board members, other than Mr. Nagao, the following fees related to their service on our board of directors, assuming that they attend at least 80% of the meetings of our board of directors or the committees on which they are members:

- an initial fee of $20,000 for agreeing to be on the board of directors; and
- an annual retainer of $20,000.

In the event that a board member attends less than 80% of such meetings, the board member would receive 25% of the cash compensation he or she would otherwise receive.

In addition, our non-employee, non-consultant directors, other than Mr. Nagao, whose employment arrangements with the Development Bank of Japan do not permit him to receive compensation for his services as a member our board, will receive nondiscretionary, automatic grants of nonstatutory stock options. A non-employee director will be granted automatically an initial option to purchase 10,000 shares upon first becoming a member of our board of directors. The initial option would be fully vested at the time of grant. Immediately after each of our regularly scheduled annual meeting of stockholders, each non-employee director, other than Mr. Nagao, will be granted automatically a nonstatutory option to purchase 10,000 shares of our common stock, provided the director has served on our board for at least six months. Each annual option will vest and become fully exercisable on the date which is six months after the date of the grant. The options granted to non-employee directors will have a per share exercise price equal to 100% of the fair market value of the underlying shares on the date of grant and will become fully vested if we are subject to a change of control.

We reimburse our directors for reasonable expenses in connection with attendance at board and committee meetings.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee at any time has been one of our officers or employees. No interlocking relationship exists, or has existed in the past, between our board or compensation committee and the board or compensation committee of any other company.

Executive Officers

Our chief executive officer serves at the discretion of our board and holds office until his or her successor is appointed or until his or her earlier resignation or removal. Our remaining executive officers and officers report to our chief executive officer. There are no family relationships among any of our directors, executive officers or officers.

Executive Compensation

The following table sets forth all of the compensation awarded to, earned by or paid to each individual who served as an executive officer in 2003 and whose salary and bonus exceeded $100,000 for services rendered in all capacities to us during 2003. Since many of our executive officers joined us during 2004, the following table also sets forth the compensation payable to our four most highly compensated executive officers, in addition to those listed as executive officers in 2003, stated as an annual amount, and any bonuses or other compensation paid and any options granted to such executive officers during 2004, measured as of June 30, 2004. We refer to all of these officers in this prospective as the named executive officers. The compensation described in this table does not include medical, group life insurance or other benefits which are generally available to all of our salaried employees.

Summary Compensation Table

		Annual Compensation			Long-Term Compensation Awards
Name and Principal Position(s)	Year	Salary ($)	Bonus ($)	Other Annual Compensation ($)	Securities Underlying Options (#)
Takashi Kiyoizumi, M.D., Ph.D. President and Chief Executive Officer	2003	$ 316,663	$47,500	—	—
Brian Anderson[1] Executive Vice President, Corporate Development	2004	$ 250,000	—	$ 2,428[2]	200,000
Richard E. Gammans, Ph.D.[1] Executive Vice President, Clinical Research	2004	$ 239,000	—	—	160,000
Kenneth W. Locke, Ph.D. Senior Vice President, Portfolio Management	2003	$ 210,000	$42,000	—	—
Mark Lotz[1] Vice President, Regulatory Affairs	2004	$ 210,000	—	—	120,000
Joji Suzuki, M.D., Ph.D.[1] Vice President, Finance	2004	$ 200,000	—	—	130,000

(1) Hired in 2004. Chart illustrates annual salaries to be paid prospectively under employment agreements and long term compensation awards granted in 2004.
(2) Allowance for housing expenses paid by us.

Stock Options

The following tables summarize option grants and exercises during the year ended December 31, 2003 to or by our named executive officers, and the value of the options held by such persons as of December 31, 2003, including the potential realizable value over the ten-year term of the options, based on assumed rates of stock appreciation of 5% and 10%, compounded annually. These assumed rates of appreciation comply with the rules of the SEC and do not represent our estimate or projection of the future common stock price. There can be no assurance that any of the values reflected in the table will be achieved. We have not granted any stock appreciation rights.

From September 2000 through September 30, 2004, we granted options to purchase up to an aggregate of 1,510,000 shares, net of cancellations, under our 2000 General Stock Incentive Plan. All options were granted at exercise prices at or above the fair market value of our common stock on the date of grant, as determined in good faith by our board of directors. Option shares generally vest over four years.

We did not grant any stock options in 2003.

Aggregate Option Exercises in 2003 and Option Values at December 31, 2003

The following table describes for the named executive officers their option exercises for the year ended December 31, 2003, and exercisable and unexercisable options held by them as of December 31, 2003. The value realized and the value of unexercised in-the-money options at December 31, 2003 are based on an assumed initial public offering price of $ per share, which is the midpoint of our expected initial offering range, less the per share exercise price, multiplied by the number of shares issued or issuable, as the case may be, upon exercise of the option. All options were granted under our 2000 General Stock Incentive Plan.

Name	Shares Acquired on Exercise (#)	Value Realized ($)	Number of Securities Underlying Unexercised Options at December 31, 2003 (#)		Value of Unexercised In-the-Money Options at December 31, 2003 ($)	
			Exercisable	Unexercisable	Exercisable	Unexercisable
Kenneth W. Locke, Ph.D. Senior Vice President, Portfolio Management	0	—	180,000	0	$	$

No options were exercised by any of the named executive officers during the fiscal year ended December 31, 2003.

Options Granted in the Current Fiscal Year

The following table provides summary information concerning individual grants of options to purchase our common stock during the current fiscal year to our named executive officers and non-employee directors. The exercise price per share at which each option was issued was the fair market value of our common stock on the date of the grant, as determined by our board of directors.

2004 Option Grants

Name	2004 Option Grants to Date
Executive Officers[1]	
Brian Anderson	200,000
Richard E. Gammans, Ph.D.	160,000
Kenneth W. Locke, Ph.D.	120,000
Mark Lotz	120,000
Joji Suzuki, M.D., Ph.D.	130,000
Non-Employee Directors[2]	
John K. A. Prendergast, Ph.D.	10,000
Daniel Vapnek, Ph.D.	10,000

(1) All options granted to executive officers vest 25% one year from the date of the grant of the option and the remaining 75% vests monthly for a period of three years commencing on the one year anniversary of the date of the grant of the option.

(2) All options granted to our non-employee directors are fully vested upon the date on which our board of directors approved the grant.

Stock Plans

2000 General Stock Incentive Plan

In September 2000, we adopted our 2000 General Stock Incentive Plan. The plan is administered by the board of directors although the board may delegate the authority to administer the plan to a committee of directors or to one or more officers, provided, however, that committee functions may not be delegated to officers to the extent that option grants relate to persons who are subject to the reporting requirements of Section 16 of the Securities Exchange Act of 1934, as amended. A total of 2,000,000 shares of common stock are authorized for issuance under the 2000 General Stock Incentive Plan.

Shares subject to stock options that have expired, been cancelled or have otherwise terminated without having been exercised in full will again become available for grant. The 2000 General Stock Incentive Plan permits the grant of options to our directors, officers, other employees and consultants. Options may be either incentive stock options to employees within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended or nonstatutory stock options. The maximum term of options granted under the plan is ten years. Except in specified circumstances, no person may be granted more than 600,000 shares of common stock in any 12-month period. Options granted under the 2000 General Stock Incentive Plan are generally nontransferable and vest at the rate determined by the administrator of the plan. Options granted under the 2000 General Stock Option Plan vest based on periods determined by our board of directors which has been four years for employees and other option recipients.

The 2000 General Stock Incentive Plan provides that in the event of a recapitalization, stock split or similar transaction, we will make appropriate adjustments in order to preserve the benefits of options outstanding under the plan. If we are involved in a merger, consolidation or other reorganization, outstanding options granted under the 2000 General Stock Incentive Plan will be subject to the agreement of merger or reorganization.

As of September 30, 2004, options to purchase a total of 1,510,000 shares of common stock were outstanding under the 2000 General Stock Incentive Plan at a weighted average exercise price of $1.00 per share. No additional options will be issued under the 2000 General Stock Incentive Plan following the date of this prospectus.

2004 Stock Incentive Plan

General. The 2004 Stock Incentive Plan is intended to serve as the successor program to our 2000 General Stock Incentive Plan. The 2004 Stock Incentive Plan was adopted by our board of directors and approved by our stockholders on , 2004, and will become effective upon the completion of this offering.

Administration. The 2004 Stock Incentive Plan will be administered by our compensation committee. The 2004 Stock Incentive Plan provides for the grant of options to purchase shares of common stock, restricted stock, stock appreciation rights and stock units. Incentive stock options may be granted to new employees. Nonstatutory stock options and other stock-based awards may be granted to employees, non-employee directors, advisors and consultants.

The board of directors will be able to amend or modify the 2004 Stock Incentive Plan at any time, with stockholder approval, if required.

Authorized Shares. shares of common stock have been authorized for issuance under the 2004 Stock Incentive Plan. However, no participant in the 2004 Stock Incentive Plan can receive option grants or stock appreciation rights for more than shares total in any calendar year, or for more than shares total in the first year of service. The number of shares reserved for issuance under the 2004 Stock Incentive Plan will be increased on the first day of each of our fiscal years from 2006 through 2014 by the lesser of:

- shares;
- % of our outstanding common stock on the last day of the immediately preceding fiscal year; or
- the number of shares determined by the board of directors.

Plan Features

Under the 2004 Stock Incentive Plan:

- We expect that options granted to optionees other than outside directors will generally vest as to 25% of the shares one year after the date of grant and as to 1/48 of the shares each month thereafter.
- Nondiscretionary, automatic grants of nonstatutory stock options will be made to outside directors. An outside director will be granted automatically, unless such director waives his right to such grant, an initial option to purchase 10,000 shares upon first becoming a member of our board of directors. The initial option vests and becomes exercisable at the time of grant. Immediately after each of our regularly scheduled annual meeting of stockholders, each outside director will be automatically granted a nonstatutory option to purchase 10,000 shares of our common stock, provided the director has served on our board for at least six months. Each annual option will be fully vested and exercisable on the date which is six months after the date of grant. The options granted to outside directors will have a per share exercise price equal to 100% of the fair market value of the underlying shares on the date of grant, and will become fully vested if we are subject to a change on control.
- Generally, if we merge or engage in a similar type of transaction with or into another corporation, we may accelerate the vesting or exercisability of outstanding options and terminate any unexercised options unless they are assumed or substituted for by any surviving entity or a parent or subsidiary of the surviving entity.
- The plan terminates ten years after its initial adoption, unless earlier terminated by the board. The board of directors may amend or terminate the plan at any time, subject to stockholder approval where required by applicable law. Any amendment or termination may not impair the rights of holders of outstanding awards without their consent.

401(k) Plan

We have established a tax-qualified employee savings and retirement plan for which our employees are generally eligible. Under our 401(k) Plan, employees may elect to reduce their compensation and have the amount of this reduction contributed to the 401(k) Plan. We make matching contributions. The 401(k) Plan is intended to qualify under Section 401(a) of the Internal Revenue Code so that contributions to the 401(k) Plan and income earned on plan contributions are not taxable to employees until withdrawn from the 401(k) Plan, and so that contributions by us, if any, will be deductible by us when made.

Employment Agreements and Change in Control Arrangements

Employment Agreement with Takashi Kiyoizumi, M.D., Ph.D., Sc.M.

On September 26, 2000, we entered into an employment agreement with Dr. Takashi Kiyoizumi, our President and Chief Executive Officer, which was replaced by a new employment agreement on September 26, 2003. Pursuant to the agreement, Dr. Kiyoizumi is required to devote his entire business time, energy and skill to further our interests. The employment agreement has a term of three years.

The agreement provides that Dr. Kiyoizumi's annual base salary shall be $316,663, which amount was increased by our board of directors to $323,946 for 2004. In addition, Dr. Kiyoizumi may receive incentive bonuses at the discretion of our board of directors. If Dr. Kiyoizumi's employment is terminated by us without cause or Dr. Kiyoizumi terminates the agreement with just cause, including by reason of a change in control of MediciNova, then Dr. Kiyoizumi would be entitled to receive severance pay equal to his base salary plus the average annual bonus for either the remainder of the term of the employment agreement or 12 months, whichever period is longer. In addition, any unvested options would become immediately exercisable.

Employment Agreement with Brian Anderson

On April 26, 2004, we entered into an employment agreement with Brian Anderson, our Executive Vice President, Corporate Development. Pursuant to the agreement, Mr. Anderson is required to devote his entire

business time, attention, energies, skills, learning and best efforts to further our interests. Mr. Anderson is an "at will" employee, but both he and MediciNova are required to give 90 days' written notice to terminate the agreement. However, in lieu of the 90 days' notice, we may provide Mr. Anderson with an amount equal to one-fourth of his annual base salary.

The agreement provides that Mr. Anderson's annual base salary shall be $250,000. In addition, Mr. Anderson may receive incentive bonuses at the discretion of our board of directors. The agreement also provides that if Mr. Anderson's employment is terminated, we have the option to engage Mr. Anderson as a consultant on a quarterly basis. Compensation for each quarter of consulting services would be equal to 15% of Mr. Anderson's annual base salary.

Employment Agreement with Richard E. Gammans, Ph.D.

On June 14, 2004, we entered into an employment agreement with Richard E. Gammans, our Executive Vice President, Clinical Research. Pursuant to the agreement, Dr. Gammans is required to devote his entire business time, attention, energies, skills, learning and best efforts to further our interests. Dr. Gammans is an "at will" employee, but both he and MediciNova are required to give three months' written notice to terminate the agreement. However, in lieu of the three months' notice, we may provide Dr. Gammans with an amount equal to three-fourths of his annual base salary.

The agreement provides that Dr. Gammans' annual base salary shall be $239,000. In addition, Dr. Gammans may receive incentive bonuses at the discretion of our board of directors. The agreement also provides that if Dr. Gammans' employment is terminated, we have the option to engage Dr. Gammans as a consultant on a quarterly basis. Compensation for each quarter of consulting services would be equal to 15% of Dr. Gammans' annual base salary.

Employment Agreement with Kenneth W. Locke, Ph.D.

On September 26, 2000, we entered into an employment agreement with Kenneth W. Locke, our Senior Vice President, Portfolio Management. A letter dated July 30, 2003 from us to Dr. Locke set forth a new title and an increase in salary. On June 1, 2004, Dr. Locke was appointed Senior Vice President, Portfolio Management. Pursuant to the agreement, Dr. Locke is required to devote his entire business time, attention, energies, skills, learning and best efforts to further our interests. Dr. Locke is an "at will" employee, but both he and MediciNova are required to give 180 days' written notice to terminate the agreement. However, in lieu of the 180 days' notice, we may provide Dr. Locke with an amount equal to one-half of his annual base salary.

The July 30, 2003 letter provides that Dr. Locke's annual base salary shall be $210,000, which amount was increased by our board of directors to $214,830 for 2004. In addition, Dr. Locke may receive incentive bonuses at the discretion of our board of directors. The agreement also provides that if Dr. Locke's employment is terminated, we have the option to engage Dr. Locke as a consultant on a quarterly basis. Compensation for each quarter of consulting services would be equal to 15% of Dr. Locke's annual base salary.

Employment Agreement with Mark Lotz

On February 2, 2004, we entered into an employment agreement with Mark Lotz, our Vice President, Regulatory Affairs. Pursuant to the agreement, Mr. Lotz is required to devote his entire business time, attention, energies, skills, learning and best efforts to further our interests. Mr. Lotz is an "at will" employee, but both he and MediciNova are required to give 90 days' written notice to terminate the agreement. However, in lieu of the 90 days' notice, we may provide Mr. Lotz with an amount equal to one-fourth of his annual base salary.

The agreement provides that Mr. Lotz's annual base salary shall be $210,000. In addition, Mr. Lotz may receive incentive bonuses at the discretion of our board of directors. The agreement also provides that if

Mr. Lotz's employment is terminated, we have the option to engage Mr. Lotz as a consultant on a quarterly basis. Compensation for each quarter of consulting services would be equal to 15% of Mr. Lotz's annual base salary.

Employment Agreement with Joji Suzuki, M.D., Ph.D.

On April 26, 2004, we entered into an employment letter agreement effective as of May 10, 2004 with Joji Suzuki, our Vice President, Finance. Our board of directors approved an amendment to the agreement on September 15, 2004 to establish his current title and increased salary. Pursuant to the agreement, Dr. Suzuki is required to exercise his specialized expertise, independent judgment and discretion to provide us with high quality services. Dr. Suzuki is an "at will" employee, but we are required by Japanese law to give 30 days' written notice to terminate the agreement. However, in lieu of the 30 days' notice, we may provide Dr. Suzuki with an amount equal to 30 days' pay. Dr. Suzuki is required to give us eight weeks' notice of any intention to terminate his employment with us. If we terminate Dr. Suzuki's employment without cause, we will provide him with six months' severance pay, which will be cancelled upon Dr. Suzuki's finding new employment.

The agreement, as amended, provides that Dr. Suzuki's annual base salary shall be $200,000. In addition, Dr. Suzuki may receive incentive bonuses at the discretion of our board of directors. The agreement also provides that Dr. Suzuki will receive a benefits adjustment of $15,000, to be divided and paid monthly. In addition, as required by Japanese law, we will pay for 50% of the premium cost for Japanese workers' compensation, unemployment and pension and welfare benefits for Dr. Suzuki.

Limitation of Liability and Indemnification Matters

Our restated certificate of incorporation limits the liability of our directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except liability for:

- any breach of their duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

This limitation of liability does not apply to liabilities arising under the federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our restated certificate of incorporation and bylaws provide that we will indemnify our directors and executive officers and may indemnify our other officers and employees and other agents to the fullest extent permitted by law. Our restated certificate of incorporation and bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in such capacity, regardless of whether the bylaws would permit indemnification.

We have entered into agreements to indemnify each of our directors and executive officers, in addition to the indemnification provided for in our restated certificate of incorporation and bylaws. In addition, we maintain directors' and officers' liability insurance. We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and executive officers.

RELATED-PARTY TRANSACTIONS

Common Stock

In September 2000, we sold 250,000 shares of our common stock at a price of $0.10 per share to Dr. Takashi Kiyoizumi, a founder, our Chief Executive Officer and a member of the board of directors, and 250,000 shares of our common stock at a price of $0.10 per share to Dr. Yuichi Iwaki, a founder, a member of our board of directors and the chairman of our board. Simultaneous with these common stock purchases, we issued warrants to each of Dr. Kiyoizumi and Dr. Iwaki to purchase shares of our common stock. The warrants originally entitled the founders to purchase an aggregate of 500,000 shares of common stock at a per share purchase price of $0.10. The warrants also contained anti-dilution provisions which resulted in an upward adjustment in the number of shares purchased under the warrants upon the issuance by us of additional shares of stock other than pursuant to our option plan. On September 2, 2004, and as a condition to the closing of our Series C preferred stock offering, the warrants were amended and restated to remove the anti-dilution protection provisions and fix the number of shares purchasable to 12,856,572, in aggregate, for both founders' warrants.

From September 2000 to September 30, 2004, we have granted an aggregate of 930,000 options to our current directors and named executive officers, with exercise prices of $1.00 per share.

Preferred Stock

In October 2000, we sold 500,000 shares of our Series A preferred stock at a per share purchase price of $10.00 to Tanabe Seiyaku Co., Ltd. for an aggregate consideration of $5,000,000. In August 2001, we sold an additional 500,000 shares of our Series A preferred stock to Tanabe Holding America, Inc. at a per share purchase price of $10.00 for an aggregate consideration of $5,000,000. These shares of Series A preferred stock automatically will convert into 10,000,000 shares of our common stock upon completion of this offering.

From March 2003 to May 2004, we sold an aggregate of 291,150 shares of our Series B preferred stock to 18 accredited investors at a per share purchase price of $100.00 for an aggregate consideration of $29,115,000. These shares of Series B preferred stock automatically will convert into 29,115,000 shares of our common stock upon completion of this offering.

On September 2, 2004, we sold an aggregate of 27,667,856 shares of our Series C preferred stock at a per share purchase price of $1.62 to 29 accredited investors for an aggregate consideration of $44,821,927. These shares of Series C preferred stock automatically will convert into an equal number of shares of our common stock upon completion of this offering.

Essex Woodlands Health Ventures Fund VI, L.P, a holder of more than 5% of our capital stock prior to the Series C Preferred Stock financing, purchased 3,703,704 shares of Series C preferred stock. Essex beneficially owned 20.19% of our outstanding capital stock (on an as-converted to common stock basis) prior to the Series C preferred stock financing and beneficially owned 17.39% of our outstanding capital stock (on an as-converted to common stock basis) subsequent to the Series C preferred stock financing.

Other Related-Party Transactions

Our board of directors approved an arrangement in September 2001 to engage Dr. Yuichi Iwaki as a consultant to us, pursuant to which we presently pay Dr. Iwaki $20,000 per month for his services rendered. In 2003, Dr. Iwaki received $190,000 pursuant to this arrangement.

In June 2001, we entered into a Research Services Agreement with Tanabe Research Laboratories U.S.A. Inc., or TRL, one of our material stockholders. Under the agreement, TRL performed research

development services for us. The agreement was terminated in May 2003. In addition, we reimbursed TRL for certain administrative expenses beginning in 2000. During 2003, we made an aggregate of $737,199 in payments to TRL as reimbursement for administrative costs and under the Research Services Agreement for services rendered by TRL. Also, in May 2003, we sold equipment to TRL for proceeds of $194,821, the net book value of the equipment on the date of the sale.

We have entered into an agreement with holders of our preferred stock, including holders of more than 5% of such shares, whereby we granted them registration rights with respect to their shares of common stock issuable upon conversion of their preferred stock.

We have entered into indemnification agreements with each of our executive officers and directors. These indemnification agreements require us to indemnify these individuals to the fullest extent permitted by Delaware law.

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding the beneficial ownership of our common stock as of September 30, 2004 by:

- each person or entity, or group of affiliated persons, known to us to own beneficially more than 5% of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our executive officers and directors as a group.

For purposes of the table below, we have assumed that 67,282,856 shares of common stock are issued and outstanding prior to the completion of this offering, which shares include preferred stock on an as-converted to common stock basis, and shares of common stock will be issued and outstanding upon completion of this offering. In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options and warrants held by that person that currently are exercisable or exercisable within 60 days of September 30, 2004 are deemed outstanding. We did not deem these shares outstanding, however, for the purposes of computing the ownership percentage of any other person.

	Shares Beneficially Owned Prior to Offering		Shares Beneficially Owned After Offering	
Name and Address of Beneficial Owner[1]	**Number**	**Percentage**	**Number**	**Percentage**
Stockholders Owning More than 5% of Our Common Stock:				
Tanabe Holding America, Inc.[2]	10,000,000	14.86%		
Essex Woodlands Health Ventures Fund VI, L.P.[3]	11,703,704	17.39%		
Entities affiliated with JAFCO[4]	7,000,000	10.40%		
Entities affiliated with Aqua RIMCO Ltd.[5]	5,855,556	8.70%		
Entities affiliate with Daiwa Securities Group Inc.[6]	3,704,136	5.51%		
Directors and Named Executive Officers:				
Takashi Kiyoizumi, M.D., Ph.D.[7]	6,678,286	9.06%		
Yuichi Iwaki, M.D., Ph.D.[7]	6,678,286	9.06%		
John K.A. Prendergast, Ph.D.[8]	10,000	*		
Daniel Vapnek, Ph.D.[9]	10,000	*		
Brian Anderson[10]	200,000	*		
Richard E. Gammans, Ph.D.[11]	160,000	*		
Kenneth W. Locke, Ph.D.[12]	300,000	*		
Mark Lotz[13]	120,000	*		
Joji Suzuki, M.D., Ph.D.[14]	130,000	*		
All directors, director nominees and executive officers as a group (9 persons)[15]	14,286,572	17.62%		

* Less than 1%

(1) Unless otherwise noted, the address of each beneficial owner listed in the table is c/o MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122.

(2) The principal business address for Tanabe Holding America, Inc. is 401 Hackensack Avenue, 10th Floor, Hackensack, New Jersey 07601.

(3) The principal business address for Essex Woodlands Health Ventures Fund VI, L.P. is 435 Tasso Street, Suite 305, Palo Alto, California 94301.

(4) Represents 4,200,000 shares held by JAFCO G-(9)(A) Venture Capital Investment Limited Partnership and 2,800,000 shares held by JAFCO G-(9)(B) Venture Capital Investment Limited Partnership, each such entity a subsidiary of JAFCO Co. Ltd. The principal business address for JAFCO Co. Ltd. is Tekko Building, 1-8-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan.

(5) Represents 300,000 shares held by Aqua RIMCO Biotechnology No. 1 Investment Partnership, 5,246,914 shares held by Aqua RIMCO Biotechnology No. 2 Investment Partnership and 308,642 shares held by ABP No. 2 Investment Partnership. Aqua RIMCO Ltd. is a general partner of each of these three entities. The principal business address for Aqua RIMCO Ltd. is Kawate Building, 1-5-8 Nishi Shimbashi, Minato-ku, Tokyo 105-0003, Japan.

(6) Represents (i) 1,235,000 shares held by Daiwa Securities SMBC Principal Investments Co., Ltd. and (ii) 2,469,136 shares held by NIF Ventures Co., Ltd. and affiliates thereof (Investment Enterprise Partnership "NIF21-One(2-A)," Investment Enterprise Partnership "NIF21-One(2-B)," Venture Capital Investment Limited Partnership "NIF Japan-USA-Europe Bridge Fund" and Venture Capital Investment Limited Partnership NIF Global Fund). Daiwa Securities Group Inc. is the majority shareholder and parent of both Daiwa Securities SMBC Principal Investments Co., Ltd. and NIF Ventures Co., Ltd. NIF Ventures Co., Ltd. is a general partner of each of its above-referenced affiliates. The principal business address of Daiwa Securities SMBC Principal Investments Co., Ltd. is Marunouchi Trust Tower North, 1-8-1 Marunouchi, Chiyoda-ku, Tokyo 100-8289, Japan. The principal business address for NIF Ventures Co., Ltd. and its affiliates is 1-2-1 Kyobashi, Chuo-ku, Tokyo, 104-0035, Japan.

(7) Represents 250,000 shares held of record and 6,428,286 shares subject to a warrant that currently is exercisable.

(8) Represents 10,000 shares subject to an option held by John K. A. Prendergast that currently is exercisable.

(9) Represents 10,000 shares subject to an option held by Daniel Vapnek that currently is exercisable.

(10) Represents 200,000 shares subject to an option held by Brian Anderson that currently is exercisable.

(11) Represents 160,000 shares subject to an option held by Richard E. Gammans that currently is exercisable.

(12) Represents 300,000 shares subject to an option held by Kenneth W. Locke that currently is exercisable.

(13) Represents 120,000 shares subject to an option held by Mark Lotz that currently is exercisable.

(14) Represents 130,000 shares subject to an option held by Joji Suzuki that currently is exercisable.

(15) Represents (i) 250,000 shares held of record by Takashi Kiyoizumi, (ii) 6,428,286 shares subject to a warrant held by Dr. Kiyoizumi that currently is exercisable, (iii) 250,000 shares held of record by Yuichi Iwaki, (iv) 6,428,286 shares subject to a warrant held by Dr. Iwaki that currently is exercisable, (v) 10,000 shares subject to an option held by John K. A. Prendergast that currently is exercisable, (vi) 10,000 shares subject to an option held by Daniel Vapnek that currently is exercisable, (vii) 200,000 shares subject to an option held by Brian Anderson that currently is exercisable, (viii) 160,000 shares subject to an option held by Richard Gammans that currently is exercisable, (ix) 300,000 shares subject to an option held by Kenneth Locke that currently is exercisable, (x) 120,000 shares subject to an option held by Mark Lotz that currently is exercisable and (xi) 130,000 shares subject to an option held by Joji Suzuki that currently is exercisable.

DESCRIPTION OF CAPITAL STOCK

The following information describes our common stock and preferred stock and provisions of our restated certificate of incorporation and our bylaws as in effect upon the closing of this offering. This description is only a summary. You should also refer to the restated certificate of incorporation and bylaws which have been filed with the SEC as exhibits to our registration statement of which this prospectus forms a part. The descriptions of the common stock and preferred stock reflect changes to our capital structure that will occur upon the receipt of the requisite board and stockholder approvals and upon the closing of this offering in accordance with the terms of the restated certificate of incorporation.

Upon completion of this offering, and after giving effect to the conversion of all outstanding convertible preferred stock into common stock and the amendment of our restated certificate of incorporation, our authorized capital stock will consist of 200,000,000 shares of common stock, $0.001 par value per share, and 5,000,000 shares of preferred stock, $ 0.01 par value per share. As of September 30, 2004, there were 67,282,856 shares of our common stock outstanding held of record by 45 stockholders, assuming conversion of our outstanding convertible preferred stock which will occur upon the closing of this offering.

Common Stock

Subject to preferences that may be applicable to any shares of preferred stock outstanding at the time, the holders of common stock are entitled to the following:

Dividends. The holders of outstanding shares of our common stock are entitled to receive dividends out of assets legally available for the payment of dividends at the times and in the amounts as the board of directors from time to time may determine, subject to any preferential dividend rights of any holder of outstanding shares of our preferred stock.

Voting. Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders, including the election of directors. We have not provided for cumulative voting for the election of directors in our restated certificate of incorporation. This means that the holders of a majority of the shares voted can elect all of the directors then standing for election.

Preemptive rights, conversion and redemption. Our common stock is not entitled to preemptive rights and is not subject to conversion or redemption.

Liquidation, dissolution and winding-up. Upon our liquidation, dissolution or winding-up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preferences of any preferred stock.

Each outstanding share of common stock is, and all shares of common stock to be issued in this offering when they are paid for will be, duly and validly issued, fully paid and non-assessable.

Options

As of September 30, 2004, options to purchase a total of 1,510,000 shares of common stock were outstanding, all of which are subject to lock-up provisions under the terms of the 2000 General Stock Incentive Plan under which these options were granted. Options to purchase a total of 490,000 shares of common stock remain available for grant under the 2000 General Stock Incentive Plan. Following this offering, options to purchase, or other equity-based awards with respect to, shares of our common stock will be available under our 2004 Stock Incentive Plan and we will cease issuing options under our 2000 General Stock Incentive Plan.

Preferred Stock

Upon the closing of this offering, all outstanding shares of our preferred stock will convert into an aggregate of 66,782,856 shares of common stock.

Following the offering, our board of directors will be authorized, subject to the limits imposed by the Delaware General Corporation Law, to issue 5,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any of its qualifications, limitations and restrictions. Our board of directors can also increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that adversely affect the voting power or other rights of our common stockholders. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, financings and other corporate purposes, could have the effect of delaying, deferring or preventing a change in control and may cause the market price of our common stock to decline or impair the voting and other rights of the holders of our common stock. We have no current plans to issue shares of preferred stock.

Warrants

As of September 30, 2004, there were warrants outstanding to purchase 13,356,572 shares of our common stock at a weighted average exercise price of $0.13 per share. Generally, each warrant contains provisions for the adjustment of its exercise price and the number of shares issuable upon its exercise upon the occurrence of any stock dividend or stock split. In addition, 12,856,572 of the shares of our common stock issuable upon the exercise of the warrants provide their holders with rights to have those shares registered with the SEC, as discussed more fully below. These warrants have net exercise provisions under which the holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our common stock at the time of exercise of the warrants after deduction of the aggregate exercise price.

Registration Rights

Under an amended and restated registration rights agreement, following this offering, the holders of 80,639,428 shares of common stock have the right to require us to register their shares with the SEC so that those shares may be publicly resold or to include their shares in any registration statement we file with the SEC.

Demand Rights

At any time after the earlier of December 31, 2005 or the date which is six months after our securities are traded on a U.S. exchange or listed on a U.S. automatic quotation system, if the holders of more than 25% of the outstanding shares of common stock issued or issuable upon conversion of our existing Series B preferred stock or Series C preferred stock, request that we file a registration statement with the SEC having an aggregate offering price to the public of not less than $5,000,000, we will use our best efforts to cause such shares to be registered and to include in such registration, if requested, the 500,000 shares of common stock issued to our founders, the 12,856,572 shares of common stock issuable by reason of the exercise of warrants held by our founders and 10,000,000 shares of common stock issued upon conversion of our existing Series A preferred stock.

If we are eligible to file a registration statement on Form S-3, holders of shares having registration rights have the right to demand that we file a registration statement on Form S-3 so long as the aggregate amount of securities to be sold under the registration statement on Form S-3 exceeds two million dollars.

Piggy Back Registration Rights

At any time after the date which is six months after our securities are traded on a U.S. exchange or listed on a U.S. automatic quotation system, the holders of shares having registration rights will be entitled to unlimited "piggy-back" registration rights on all registrations of MediciNova. We and the underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement, but not below 25% of the total number of shares included in the registration statement, except for this initial public offering in which the underwriters have excluded any sales by existing investors.

Expenses of Registration

We shall bear all registration expenses, exclusive of underwriting discounts and commissions, of all demand and piggy-back registrations.

Expiration of Registration Rights

The registration rights will terminate for each stockholder if and when that stockholder holds less than 1% of our outstanding stock, our shares trade on a U.S. exchange or are listed on a U.S. automated system and all of such holder's registrable shares are tradable under Rule 144 of the Securities Act during any 90 day period.

Delaware Anti-Takeover Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law, or Delaware law, regulating corporate takeovers. In general, these provisions prohibit a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- the transaction is approved by the board of directors before the date the interested stockholder attained that status;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced; or
- on or after the date the business combination is approved by the board of directors and authorized at a meeting of stockholders, by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any of these entities or persons.

A Delaware corporation may opt out of this provision either with an express provision in its original certificate of incorporation or in an amendment to its certificate of incorporation or bylaws approved by its stockholders. However, we have not opted out of this provision. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be .

Listing

We intend to apply to have our common stock included for quotation on the Mothers Market of the Tokyo Stock Exchange.

Clearing and Transferability of Shares

The share certificates representing the offered shares will be deposited by us with The Depository Trust Company of New York. The Depository Trust Company's nominee, Cede & Co., will be the registered owner of such shares. At the closing, The Depository Trust Company will electronically deposit the shares in the account of Japan Securities Settlement & Custody, Inc., or JSSC. Thereafter, the JSSC will electronically transfer, in book entry form, beneficial ownership of the shares to the purchasers of the shares through their brokers and other financial institutions that are JSSC participants. The JSSC will not hold any certificates for common stock. Certificates representing shares of common stock held through the JSSC will not be issued unless such shares are withdrawn from the JSSC, in which case the shares will not be eligible to trade on a Japanese exchange unless such shares are re-deposited with The Depository Trust Company for credit to the JSSC's account with The Depository Trust Company.

Shares transferred from The Depository Trust Company to the account of the JSSC may be freely transferred among market participants through the JSSC clearing system. The shares to be offered and listed for trading on the Tokyo Stock Exchange's Mothers Market are registered shares. Accordingly, stockholders holding share certificates who desire to transfer their shares outside The Depository Trust Company/JSSC clearing system may effect the transfer by effecting withdrawal of their shares from the JSSC and submitting to our transfer agent their share certificates, and the transfer agent will issue a new certificate in the name of the transferee. If stockholders holding share certificates wish to transfer their registered shares to The Depository Trust Company for inclusion in the JSSC clearing system, the stockholders must submit their share certificates to our transfer agent, and the transfer agent will register the shares in the name of Cede & Co. These shares will be credited to the account of the JSSC at The Depository Trust Company. Upon registration of the shares with The Depository Trust Company for the benefit of the JSSC and fulfillment of any other requirements of The Depository Trust Company or the JSSC, beneficial ownership of the shares may be transferred through the JSSC.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. We cannot predict the effect, if any, that market sales of shares or the availability of shares for sale will have on the market price prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after the restrictions lapse, or the perception that such sales may occur, could cause the prevailing market price to decrease or to be lower than it might be in the absence of those sales or perceptions.

Sale of Restricted Shares

When this offering is completed, we will have a total of shares of common stock outstanding, assuming no exercise of outstanding options prior to completion of this offering. The shares offered by this prospectus will be freely tradable, unless they are purchased by our affiliates as defined in Rule 144(a) under the Securities Act. The remaining shares are restricted, which means they were originally sold in offerings that were not subject to a registration statement filed with the U.S. Securities and Exchange Commission. These restricted shares may be resold only through registration under the Securities Act or under an available exemption from such registration, such as provided through Rule 144, Rule 144(k) or Rule 701.

Lock-Up Agreements

All of our officers and directors and all of our stockholders are subject to lock-up provisions under which they have agreed not to transfer or dispose of, directly or indirectly, any shares of common stock, or any securities convertible into or exercisable or exchangeable for shares of common stock, for a period of 180 days after the listing of our shares on the Mothers Market of the Tokyo Stock Exchange.

Rule 144

In general, under Rule 144 as currently in effect, beginning 90 days after the date of the prospectus, a person who has beneficially owned shares of our common stock for at least one year, including the holding period of certain prior owners other than our affiliates, is entitled to sell within any three-month period a number of shares of our common stock that does not exceed 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering.

Sales under Rule 144, however, are subject to certain manner of sale provisions, notice requirements and the availability of current public information about our company. As of the date of this prospectus, approximately million of the restricted shares will be eligible for sale under Rule 144 beginning 90 days after the date of this prospectus, and the remaining restricted shares will become eligible for sale at various times thereafter.

Rule 144(k)

Under Rule 144(k), in general, a person who is not deemed to have been one of our affiliates at any time during the 90 days preceding a sale and who has beneficially owned shares for at least two years, including the holding period of certain prior owners other than affiliates, is entitled to sell those shares without complying with the manner of sale provisions, notice requirements, public information requirements or volume limitations of Rule 144. Affiliates of our company, however, must always sell pursuant to Rule 144, even after the otherwise applicable Rule 144(k) holding period has been satisfied.

Rule 904

Rule 904 of Regulation S of the U.S. Securities Act generally provides that shares owned by any person, other than persons deemed to be an affiliate of ours, may be sold without registration outside the United States, provided the sale is accomplished in an offshore transaction, as that term is defined in Regulation S, and no directed selling efforts, as that term is defined in Regulation S, are made, subject to other conditions. In general,

this means that the shares, including restricted shares and shares of our common stock held by our directors and officers who are our affiliates solely by virtue of holding that position, may be sold without registration on the Tokyo Stock Exchange—Mothers Market or otherwise outside the United States. However, our officers and directors and all of our stockholders have agreed, pursuant to the lock-up agreements noted above, not to sell their shares of our common stock solely in reliance upon Rule 904 for a period of one year following the listing of our shares of common stock on the Mothers Market.

Rule 701

In general, under Rule 701 of the Securities Act as currently in effect, any of our employees, consultants or advisors who purchases securities, including options, from us before the date of this prospectus through our 2000 General Stock Incentive Plan or through some other compensatory stock or option plan or other written agreement is eligible to resell those shares, including shares issued upon the exercise of options, 90 days after the effective date of this offering in reliance on Rule 144, but without compliance with certain restrictions, including the holding period, public information and volume restrictions, contained in Rule 144. As of September 30, 2004, none of our outstanding shares of common stock had been issued in reliance on Rule 701 as a result of the exercise of stock options. All of these shares are subject to contractual 180-day lock-up restrictions, and all of these shares will be eligible for sale upon expiration of such lock-up restrictions. In addition, as of September 30, 2004, options to purchase a total of 1,510,000 shares of common stock were outstanding.

Stock Options

We intend to file, and the underwriters have agreed to allow us to file, a registration statement on Form S-8 under the Securities Act covering shares of common stock reserved for issuance under our stock incentive plans. Accordingly, shares registered under this registration statement will be available for sale in the open market upon exercise by the holders, unless those shares are subject to vesting restrictions with us or the contractual restrictions described above.

Registration Rights

For a description of registration rights, please see the section entitled “Registration Rights” on page 64.

The Japanese Equity Markets

Japanese Securities Laws

As a U.S. company offering securities on a Japanese stock exchange, we are subject to various laws and regulations in both jurisdictions. Some of these laws and regulations, in turn, can affect the ability of holders of our securities to transfer or sell our securities.

At present, Japan does not restrict the export or import of capital, except for transactions with related parties of the former regime of Iraq and other parties designated by the Ministry of Finance of Japan, some of which are designated in accordance with applicable resolutions adopted by the United Nations and the European Union.

There are no limitations on the right of non-resident owners to hold or vote their shares imposed by Japanese law or our restated certificate of incorporation or bylaws.

The Tokyo Stock Exchange and the Mothers Market

The Tokyo Stock Exchange is the most significant of the five Japanese stock exchanges and accounted for approximately 89% of the turnover in traded shares in Japan in 2003. The aggregate annual turnover of the Tokyo Stock Exchange in 2003 of approximately ¥242,371 billion, based on the Tokyo Stock Exchange’s practice of separately recording the sale and purchase components involved in any trade, for both equity and debt instruments, made it the third largest stock exchange in the world behind the New York Stock Exchange and the London Stock Exchange in terms of turnover.

The Mothers Market segment of the Tokyo Stock Exchange is a new trading segment that was launched in November 1999. It is designed for innovative, small to mid-size companies in high growth industries or in traditional industries that have an international orientation and that are willing to provide active investor relations. Issuers are required to provide investors on an ongoing basis with information such as annual, semi-annual and quarterly reports, including cash flow statements, and a corporate action timetable. This information is required to be submitted in Japanese in electronic form, thus enabling the stock exchange to disseminate corporate information via the Internet.

The Mothers Market differs from the other sections of the Tokyo Stock Exchange in the following ways:

- A history of financial results and a minimum number of years since incorporation are not required as listing criteria. A company that has adequate operational plans is acceptable.
- Examination of listings emphasizes disclosure of a company's main business and risk factors.
- The quarterly disclosed financial documents of the companies listed on the Mothers Market must be accompanied by the auditor's review report.
- There are delisting criteria such as (i) the sales recorded for the last business year, other than the business year in which the company first lists on the Mothers Market, are less than ¥100 million, approximately $900,000 at recent exchange rates (not applicable if profits are recorded for that year) and (ii) the market capitalization is less than ¥500 million, subject to a grace period, neither of which requirements exists for other sections of the Tokyo Stock Exchange.

The initial public offering price and the initial settlement will all be denominated in U.S. dollars. Upon the listing date, the Tokyo Stock Exchange will determine a reference price in Japanese yen by converting the initial public offering price using the previous day's exchange rate at the close of business in New York. All subsequent trading of the shares on the Mothers Market will be conducted in Japanese yen.

Trading of the shares listed on the Tokyo Stock Exchange, including the Mothers Market, takes place through an electronic trading system. Trading takes place every business day from 9:00 a.m. to 11:00 a.m. and from 12:30 p.m. to 3:00 p.m., Tokyo time. Trading on the Tokyo Stock Exchange is done through registered securities firms who are members of the Tokyo Stock Exchange.

Transactions of the Tokyo Stock Exchange are normally settled on the third business day following trading. Trading can be suspended by the Tokyo Stock Exchange if orderly stock exchange trading is temporarily endangered or if a suspension is in the public interest.

We are applying to list our shares on the Mothers Market. The Mothers Market is still a relatively new market. Accordingly, there can be no assurance that an active trading market for the shares will develop on the Mothers Market or that the Mothers Market will not experience problems in settlement or clearance as trading develops. Any such delays or problems could adversely affect the market price of the shares. Persons proposing to trade the shares on the Mothers Market should inform themselves about the potential costs of such trading.

Trading Units on the Tokyo Stock Exchange

Trading on the Tokyo Stock Exchange is in specific trading units consisting of one or more shares. The number of shares per trading unit is determined by the regulations of the Tokyo Stock Exchange. We expect that our shares will initially trade in units of shares.

Report of Substantial Shareholdings

The Securities and Exchange Law of Japan requires any person who has become a holder of more than 5% of the total issued shares of a company listed on any Japanese stock exchange or whose shares are traded on the over-the-counter market to file with the relevant Local Finance Bureau, within five business days, a report

concerning those shareholdings. A similar report must also be filed to reflect any change of 1% or more in the above shareholding. Copies of any reports must also be furnished to the company and to all Japanese stock exchanges on which the company's shares are listed or, in the case of shares traded on the over-the-counter market, the Securities Dealers Association of Japan. For this purpose, shares issuable to a 5% or greater stockholder upon exercise of subscription warrants are taken into account in determining both the number of shares held by that stockholder and the company's total issued share capital.

Daily Price Fluctuation Limits under Japanese Stock Exchange Rules

Stock prices on Japanese stock exchanges are determined on a real-time basis by the equilibrium between bids and offers. These exchanges are order-driven markets without specialists or market makers to guide price formation. To prevent excessive volatility, these exchanges set daily upward and downward price fluctuation limits for each stock, based on the previous day's closing price. Although transactions may continue at the upward or downward limit price if the limit price is reached on a particular trading day, no transactions may take place outside these limits. Consequently, an investor wishing to sell at a price above or below the relevant daily limit may not be able to sell the shares at such price on a particular trading day, or at all.

TAX MATTERS

Japanese Tax Matters

The following is a summary of certain tax matters arising under Japanese tax law in force on the date of this prospectus. The summary does not purport to be a comprehensive description of all of the tax considerations which may be relevant as to the decision to acquire shares of our common stock. The summary is based on the tax laws of Japan in effect on the date of this prospectus, which may be subject to change. The summary does not address aspects of Japanese taxation other than taxation of dividends, capital gains taxation and gift and inheritance taxation, and does not address all aspects of such Japanese taxation. The summary does not consider any specific facts or circumstances that may apply to a particular purchaser or a particular transaction. Prospective investors should consult their professional advisors as to the tax consequences of any acquisition, holding or disposal of shares of our common stock, including, in particular, the effect of tax laws of any other jurisdiction.

Income Taxation of Dividends

Any dividends distributed to Japanese residents or Japanese companies are, in principle, fully subject to Japanese income or corporate tax. The same is true for non-residents of Japan and non-Japanese companies who have permanent establishments and the dividends are attributable to such permanent establishments in Japan. With respect to dividends paid in Japan through, for example, a paying agent in Japan, the balance of such dividends remaining (after collection of the withholding tax, if any, of the United States or any local public entity thereof from the payment of such dividends in the United States) will be subject to income tax at the withholding tax rate set out in the following table, to be withheld at the source in certain circumstances.

Withholding Tax Rate on Dividends

Period in which the Dividends are to be Paid	Withholding Tax Rate	Remarks
January 1, 2004—March 31, 2008	10%	7% income tax, 3% residents' tax
April 1, 2008—	20%	15% income tax, 5% residents' tax

Dividend withholding tax levied in the United States can be credited against the Japanese income tax liability of the Japanese residents and Japanese companies. Alternatively, a Japanese resident or Japanese company may deduct the total amount of U.S. withholding tax from his, her or its Japanese taxable income.

If the Convention between the Government of Japan and the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income applies, a Japanese corporation that has beneficial title to at least 50% of the shares of a U.S. corporation is exempt from U.S. taxation with respect to the dividends paid by the U.S. corporation. A Japanese corporation that has beneficial title to at least 10% of the shares of a U.S. corporation is entitled to a reduction or refund of U.S. taxes in excess of 5%, and all other Japanese residents or corporations are entitled to a refund or reduction of U.S. taxes in excess of 10%. If the shares are held by Japanese holders through a partnership, the dividends, including the withholding tax credit, are allocated to the partners according to their interest in the partnership.

Any dividends distributed to stockholders who are non-residents of Japan or non-Japanese companies and who do not have permanent establishments in Japan are not subject to Japanese income or corporate tax.

Capital Gains Tax

In principal, capital gains by Japanese residents arising from transactions in our common stock will be subject to income tax and capital losses arising from transactions in our common stock will be deductible from other capital gains arising from transactions in our common stock. Taxpayers will pay tax equal to 20% of the

total net profits realized on all stock transactions during the taxable year. The tax rate for transfers of our common stock conducted by those satisfying both of the following conditions shall be 10% for transfers conducted before December 31, 2007:

- residents of Japan or non-residents having permanent establishments in Japan; and
- those who conduct the transfer through a securities company or a bank, or otherwise stipulated by applicable tax laws and regulations.

For our common stock held by Japanese corporations, all capital gains and losses arising from transactions in our common stock are included in the determination of taxable income.

Stockholders who are non-residents of Japan or non-Japanese companies and who do not have permanent establishments in Japan are not subject to capital gains tax.

Gift and Inheritance Taxes

Transferees of our common stock are subject to Japanese inheritance and gift tax upon transfer by reason of death or as a gift, based on the market value at the time of the death or gift if the heir or donee, as applicable, is a tax resident of Japan at the time of the death or gift, as applicable, or, if of Japanese nationality, has been a resident of Japan within the five-year period prior to the death or gift, as applicable.

Other Japanese Taxes

There are no Japanese transfer, stamp or other similar taxes which would apply to the sale or transfer of shares of our common stock.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF OUR COMMON STOCK

The following discussion summarizes certain U.S. federal income and estate tax consequences of the purchase, ownership and disposition of our common stock by a non-U.S. holder, as we define that term below. This discussion is based upon the U.S. Internal Revenue Code of 1986, as amended, or the Code, existing U.S. Treasury Department regulations and judicial decisions and administrative interpretations thereof, all as of the date hereof. These authorities are subject to change, possibly with retroactive effect, and any change could affect the continuing validity of this discussion. We cannot assure you that the U.S. Internal Revenue Service, or IRS, will not challenge one or more of the tax consequences described herein. We have not sought, nor do we intend to seek, a ruling from the IRS or an opinion of counsel with respect to the U.S. federal income and estate tax consequences of purchasing, owning or disposing of our common stock.

In this discussion, we do not purport to address all tax considerations that may be important to a particular non-U.S. holder in light of the holder's circumstances, or to certain categories of investors (including, without limitation, partnerships or other pass-through entities and their owners, banks, insurance companies, tax-exempt organizations, dealers in securities, holders of securities held as part of a straddle, hedge, conversion transaction or other risk-reduction transaction, U.S. expatriates or persons who hold or receive common stock as compensation) that may be subject to special rules. This discussion applies only to non-U.S. holders that hold our common stock as a capital asset within the meaning of Section 1221 of the Code. This discussion also does not address the tax considerations arising under the laws of any foreign, state, local or other jurisdiction or, unless otherwise specified, under any applicable tax treaties.

YOU SHOULD CONSULT YOUR OWN TAX ADVISORS AS TO THE PARTICULAR TAX CONSEQUENCES TO YOU OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK, INCLUDING THE EFFECT AND APPLICABILITY OF THE TAX LAWS OF OTHER JURISDICTIONS OR TAX TREATIES.

A “non-U.S. holder” is a beneficial owner of our common stock that is not:

- an individual who is a citizen or resident of the United States for U.S. federal income tax purposes;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any State thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if (i) the administration of the trust is subject to the primary supervision of a court in the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust or (ii) the trust has a valid election in effect under applicable U.S. Treasury Department regulations to be treated as a U.S. person.

If a partnership holds our common stock, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. If you are a partner of a partnership holding our common stock, we suggest that you consult your tax advisors.

U.S. Trade or Business Income

For purposes of the following discussion, dividends and gains on the sale, exchange or other disposition of our common stock will be considered to be “U.S. trade or business income” if such income or gain is (i) effectively connected with the conduct of a U.S. trade or business or (ii) in the case of a treaty resident, attributable to a permanent establishment in the United States. Generally, U.S. trade or business income is subject to U.S. federal income tax on a net income basis at regular graduated tax rates. Any U.S. trade or business income received by a non-U.S. holder that is a corporation may, under specific circumstances, be subject to an additional “branch profits tax” at a 30% rate or a lower rate that an applicable income tax treaty may specify.

Dividends

Dividends paid to a non-U.S. holder of common stock generally will be subject to withholding of U.S. federal income tax at a 30% rate unless the dividends are U.S. trade or business income and the non-U.S. holder files a properly executed IRS Form W-8ECI with the withholding agent.

The 30% withholding rate may be reduced if the non-U.S. holder is eligible for the benefits of an income tax treaty that provides for a lower rate. Generally, to claim the benefits of an income tax treaty, a non-U.S. holder of common stock will be required to provide a properly executed IRS Form W-8BEN and satisfy applicable certification and other requirements, including, in certain cases, obtaining from and furnishing to the IRS a taxpayer identifying number. Non-U.S. holders will not be required to furnish a U.S. taxpayer identifying number in order to claim treaty benefits with respect to dividends on our common stock if our common stock is traded on an established financial market. A non-U.S. holder of common stock that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by filing an appropriate claim for a refund with the IRS. A non-U.S. holder should consult its tax advisor as to its entitlement to benefits under a relevant income tax treaty.

Disposition of Common Stock

A non-U.S. holder generally will not be subject to U.S. federal income tax in respect of gain recognized on a sale or exchange of common stock unless:

- the gain is U.S. trade or business income;
- the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of the sale or exchange and meets other requirements; or
- we are or have been a “United States real property holding corporation,” or USRPHC, for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of disposition and the period that the non-U.S. holder held our common stock.

The tax relating to stock in a USRPHC does not apply to a non-U.S. holder whose holdings, direct and indirect, at all times during the applicable period, amount to 5% or less of the common stock, provided that the common stock is regularly traded on an established securities market. Generally, a corporation is a USRPHC if the fair market value of its "United States real property interests" equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we have not been and are not currently a USRPHC for U.S. federal income tax purposes, nor do we anticipate becoming a USRPHC in the future. However, no assurance can be given that we will not be a USRPHC when a non-U.S. holder sells its shares of common stock.

Federal Estate Taxes

An individual non-U.S. holder who is treated as the owner of, or has made certain lifetime transfers of, an interest in our common stock will be required to include the value thereof in his or her gross estate for U.S. federal estates tax purposes, and may be subject to U.S. federal estate tax unless an applicable estate tax treaty provides otherwise.

Information Reporting Requirements and Backup Withholding Tax

Dividends

We must report annually to the IRS and to each non-U.S. holder the amount of dividends, if any, paid to such non-U.S. holder and tax withheld with respect to those dividends. These information reporting requirements apply even if withholding was not required because the dividends were effectively connected dividends or withholding was reduced or eliminated by an applicable tax treaty. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which a non-U.S. holder resides. Dividends paid to non-U.S. holders of common stock generally will be exempt from backup withholding if you certify as to your non-U.S. holder status under penalties of perjury or you otherwise qualify for an exemption (provided that neither we nor our agent know or have reason to know that you are a U.S. person or that the conditions of any other exemptions are not in fact satisfied.

Disposition of Common Stock

The payment of the proceeds from the disposition of common stock to or through the U.S. office of a U.S. or foreign broker will be subject to information reporting and possible backup withholding unless you provide the certification described above or you otherwise qualify for an exemption. The proceeds of a disposition of common stock effected outside the United States by a non-U.S. holder to or through a foreign office of a broker generally will not be subject to information reporting or backup withholding. However, if such broker is a U.S. person, a controlled foreign corporation, a foreign person for whom 50 percent or more of its gross income from all sources for certain periods is effectively connected with a trade or business in the United States, or a foreign partnership that is engaged in the conduct of a trade or business in the United States or that has one or more partners that are U.S. persons who in the aggregate hold more than 50 percent of the income or capital interests in the partnership, information reporting requirements will apply unless such broker has documentary evidence in its files of the holder's non-U.S. status and has no actual knowledge or reason to know to the contrary or unless the holder otherwise qualifies for an exemption.

Backup withholding is currently applied at a rate of 28% but is not an additional tax. Any amount withheld under the backup withholding rules is allowable as a credit against your U.S. federal income tax liability, if any, provided that the required information or appropriate claim for refund is submitted properly to the IRS.

UNDERWRITING

We have entered into an underwriting agreement with Daiwa Securities SMBC Co. Ltd. and the other Japanese underwriters listed below with respect to the shares being offered. Each underwriter has severally agreed to purchase the number of shares indicated in the following table at the initial public offering price less the underwriting discount. Daiwa Securities SMBC Co. Ltd. is the lead underwriter for the offering.

Underwriters	Number of Shares
Daiwa Securities SMBC Co. Ltd.	
Total	

The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

If the underwriters sell more shares than the total number set forth in the table above, the underwriters have an option to buy up to an additional shares from us to cover such sales. They may exercise the over-allotment option for days after the day on which the shares are first quoted on the Mothers Market. If any shares are purchased pursuant to the over-allotment option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us assuming an offer price of $. Such amounts are shown assuming both no exercise and full exercise of the over-allotment option.

Underwriting discount and commissions	No Exercise	Full Exercise
Per share	$	$
Total		

We estimate that the total expenses of the offering payable by us, excluding underwriting discounts and commissions, will be approximately $.

Our common stock will be quoted on the Mothers Market of the Tokyo Stock Exchange under the symbol " ".

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. If all the shares are not sold at the initial offering price, the underwriters may change the offering price and the other selling terms.

Prior to the offering, there has been no public market for the shares. The initial public offering price will be negotiated among us and the underwriters. Among the factors to be considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, will be our historical performance, stage of development of our product candidates, estimates of our business potential and earnings prospects, an assessment of our management and the consideration of the above factors in relation to market valuation of companies in related businesses.

We, our directors, officers, stockholders, option holders and warrantholders have agreed with the underwriters not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock for 180 days from the date of this prospectus, except with the prior written consent of Daiwa Securities SMBC Co. Ltd. acting on behalf of the underwriters.

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. "Naked" short sales are sales in excess of this option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. To facilitate the ability of the underwriters to settle transactions involving over-allotments prior during the 30-day period during which the underwriters have an over-allotment option to purchase shares of common stock from us, has entered into a stock lending arrangement covering of our shares. The underwriters are obligated to return all borrowed shares to concurrent with the exercise of the over-allotment option. No fees or other remuneration will be paid by the underwriters to for the loan of these shares of common stock.

These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. These transactions may be effected on the Mothers Market, in the over-the-counter market or otherwise.

We intend to apply for the listing of all of our outstanding shares of common stock as well as shares of common stock reserved for issuance upon the exercise of options and shares of common stock reserved for issuance upon the exercise of warrants as of for trading on the Mothers Market of the Tokyo Stock Exchange.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the U.S. Securities Act of 1933.

The underwriters expect to deliver the shares against payment in dollars through the facilities of the Japan Securities Settlement & Custody, Inc. on or about , 2005.

Investment companies controlled by Daiwa Securities Group Inc., the majority shareholder of Daiwa Securities SMBC Co. Ltd., own Series C Preferred Stock convertible into 5.51% of our outstanding shares immediately prior to the offering. These entities acquired their shares together with other investors on September 2, 2004.

LEGAL MATTERS

Selected legal matters with respect to the validity of the common stock offered by this prospectus are being passed upon for us by Pillsbury Winthrop LLP, San Diego, California. Selected legal matters in connection with this offering will be passed upon for the underwriters by Simpson Thacher & Bartlett LLP, Tokyo, Japan. A member of Pillsbury Winthrop LLP serves as our Secretary and holds an option to purchase 100,000 shares of our common stock at a per share purchase price of $1.00.

EXPERTS

The financial statements of MediciNova, Inc. at December 31, 2003 and 2002 and for each of the three years in the period ended December 31, 2003, appearing in this Prospectus and Registration Statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement under the Securities Act with respect to the common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement and the exhibits and schedules to the registration statement. Please refer to the registration statement, exhibits and schedules for further information with respect to the common stock offered by this prospectus. Statements contained in this prospectus regarding the contents of any contract or other document are not necessarily complete. With respect to any contract or document filed as an exhibit to the registration statement, you should refer to the exhibit for a copy of the contract or document, and each statement in this prospectus regarding that contract or document is qualified by reference to the exhibit. A copy of the registration statement and its exhibits and schedules may be inspected without charge at the SEC's public reference room, located at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings, including this registration statement, are also available to the public on the SEC's website at www.sec.gov.

Upon completion of this offering, we will be subject to the information and reporting requirements of the Securities Exchange Act and, in accordance therewith, will file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information will be available for inspection at the public reference room and website of the SEC referred to above. We maintain a website at www.medicinova.com. You may access our periodic reports and any amendments to those reports filed with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website does not constitute incorporation by reference of the information contained therein.

MediciNova, Inc.
(a development stage company)

INDEX TO FINANCIAL STATEMENTS

REPORT OF ERNST & YOUNG LLP, INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
MediciNova, Inc.

We have audited the accompanying balance sheets of MediciNova, Inc. (a development stage company) as of December 31, 2002 and 2003, and the related statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2003, and the statement of stockholders' equity for the period from September 26, 2000 (inception) to December 31, 2000. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of MediciNova, Inc. (a development stage company) at December 31, 2002 and 2003, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2003, and the statement of stockholders' equity for the period from September 26, 2000 (inception) to December 31, 2000, in conformity with U.S. generally accepted accounting principles.

/s/ ERNST & YOUNG LLP

San Diego, California
September 10, 2004

MediciNova, Inc.
(a development stage company)
Balance Sheets

	December 31, 2002	December 31, 2003	June 30, 2004 (unaudited)	Pro Forma Stockholders' Equity at June 30, 2004 (unaudited)
Assets				
Current assets:				
Cash and cash equivalents	$ 1,281,118	$ 4,240,699	$ 13,941,264	
Marketable securities available-for-sale	—	1,250,000	1,250,000	
Prepaid expenses and other current assets	58,966	108,360	272,293	
Total current assets	1,340,084	5,599,059	15,463,557	
Property and equipment, net	246,406	32,250	168,124	
	$ 1,586,490	$ 5,631,309	$ 15,631,681	
Liabilities and Stockholders' Equity				
Current liabilities:				
Accounts payable	$ 108,657	$ 329,328	$ 699,629	
Accrued expenses	70,759	294,500	307,829	
Due to affiliate	265,466	—	—	
Accrued compensation and related expenses	19,143	137,599	164,901	
Total current liabilities	464,025	761,427	1,172,359	
Advances received for the sale of convertible preferred stock	—	300,000	—	
Commitments				
Stockholders' equity:				
Convertible preferred stock, $0.01 par value; 3,000,000, 3,000,000 and 5,000,000 shares authorized at December 31, 2002 and 2003 and June 30, 2004 (unaudited), respectively; 1,000,000, 1,107,500 and 1,291,150 shares issued and outstanding at December 31, 2002 and 2003 and June 30, 2004 (unaudited), respectively; no shares outstanding pro forma (unaudited)	10,000	11,075	12,912	$ —
Common stock, $0.001 par value; 16,000,000, 80,000,000 and 80,000,000 shares authorized at December 31, 2002 and 2003 and June 30, 2004 (unaudited), respectively; 500,000 shares issued and outstanding at December 31, 2002 and 2003 and June 30, 2004 (unaudited), respectively; 39,615,000 shares outstanding pro forma (unaudited)	500	500	500	39,615
Additional paid-in capital	10,039,500	19,694,972	57,406,689	57,380,486
Deferred employee stock-based compensation	—	—	(1,127,510)	(1,127,510)
Deficit accumulated during the development stage	(8,927,535)	(15,136,665)	(41,833,269)	(41,833,269)
Total stockholders' equity	1,122,465	4,569,882	14,459,322	$ 14,459,322
Total liabilities and stockholders' equity	$ 1,586,490	$ 5,631,309	$ 15,631,681	

See accompanying notes.

MediciNova, Inc.
(a development stage company)
Statements of Operations

	Years ended December 31,			Six months ended June 30,		Period from September 26, 2000 (inception) to June 30, 2004
	2001	2002	2003	2003	2004	
				(unaudited)	(unaudited)	(unaudited)
Revenues	$ —	$ —	$ —	$ —	$ 186,960	$ 186,960
Cost of revenues	—	—	—	—	165,760	165,760
Gross profit	—	—	—	—	21,200	21,200
Operating expenses:						
Research and development	951,408	5,551,310	4,723,158	2,228,610	6,108,352	17,606,160
General and administrative	1,063,440	1,461,526	1,537,945	707,011	1,223,364	5,286,275
Amortization of employee stock-based compensation:						
Research and development	—	—	—	—	13,782	13,782
General and administrative	—	—	—	—	10,208	10,208
Stock-based compensation related to founders' warrants	—	—	—	—	19,405,950	19,405,950
Total operating expenses	2,014,848	7,012,836	6,261,103	2,935,621	26,761,656	42,322,375
Operating loss	(2,014,848)	(7,012,836)	(6,261,103)	(2,935,621)	(26,740,456)	(42,301,175)
Other income, net	220,114	81,360	51,973	23,235	43,852	467,906
Net loss	$ (1,794,734)	$ (6,931,476)	$ (6,209,130)	$ (2,912,386)	$ (26,696,604)	$ (41,833,269)
Basic and diluted net loss per share	$ (3.59)	$ (13.86)	$ (12.42)	$ (5.82)	$ (53.39)	
Shares used to compute basic and diluted net loss per share	500,000	500,000	500,000	500,000	500,000	
Pro forma net loss per common share assuming conversion of preferred stock, basic and diluted			$ (0.37)		$ (0.96)	
Shares used in computing pro forma net loss per common share assuming conversion of preferred stock, basic and diluted			16,778,767		27,946,401	

See accompanying notes.

MediciNova, Inc.
(a development stage company)
Statements of Stockholders' Equity

	Convertible preferred stock		Common stock		Additional paid-in capital	Deferred compensation	Deficit accumulated during the development stage	Total stockholders' equity
	Shares	Amount	Shares	Amount				
Issuance of common stock for cash to founders at $0.10 per share in September	—	$ —	500,000	$ 500	$ 49,500	$ —	$ —	$ 50,000
Issuance of Series A convertible preferred stock at $10 per share in October	500,000	5,000	—	—	4,995,000	—	—	5,000,000
Net loss and comprehensive loss	—	—	—	—	—	—	(201,325)	(201,325)
Balance at December 31, 2000	500,000	5,000	500,000	500	5,044,500	—	(201,325)	4,848,675
Issuance of Series A convertible preferred stock at $10 per share in August	500,000	5,000	—	—	4,995,000	—	—	5,000,000
Net loss and comprehensive loss	—	—	—	—	—	—	(1,794,734)	(1,794,734)
Balance at December 31, 2001	1,000,000	10,000	500,000	500	10,039,500	—	(1,996,059)	8,053,941
Net loss and comprehensive loss	—	—	—	—	—	—	(6,931,476)	(6,931,476)
Balance at December 31, 2002	1,000,000	10,000	500,000	500	10,039,500	—	(8,927,535)	1,122,465
Issuance of Series B convertible preferred stock at $100 per share, net of issuance costs of $1,093,453, in March, April, May and December	107,500	1,075	—	—	9,655,472	—	—	9,656,547
Net loss and comprehensive loss	—	—	—	—	—	—	(6,209,130)	(6,209,130)
Balance at December 31, 2003	1,107,500	11,075	500,000	500	19,694,972	—	(15,136,665)	4,569,882
Issuance of Series B convertible preferred stock at $100 per share, net of issuance costs of $1,208,896, in January, February, March, April and May (unaudited)	183,650	1,837			17,154,267	—	—	17,156,104
Stock-based compensation related to founders' warrants (unaudited)	—	—	—	—	19,405,950	—	—	19,405,950
Deferred employee stock-based compensation (unaudited)	—	—	—	—	1,151,500	(1,151,500)	—	—
Amortization of deferred employee stock-based compensation (unaudited)	—	—	—	—	—	23,990	—	23,990
Net loss and comprehensive loss (unaudited)	—	—	—	—	—	—	(26,696,604)	(26,696,604)
Balance at June 30, 2004 (unaudited)	1,291,150	$ 12,912	500,000	$ 500	$ 57,406,689	$ (1,127,510)	$ (41,833,269)	$ 14,459,322

See accompanying notes.

MediciNova, Inc.
(a development stage company)
Statements of Cash Flows

	Years ended December 31,			Six months ended June 30,		Period from September 26, 2000 (inception) to June 30, 2004
	2001	2002	2003	2003	2004	
Operating activities						
Net loss	$ (1,794,734)	$ (6,931,476)	$ (6,209,130)	$ (2,912,386)	$ (26,696,604)	$ (41,833,269)
Adjustments to reconcile net loss to net cash used in operating activities:						
Non-cash stock-based compensation	—	—	—	—	19,429,940	19,429,940
Depreciation and amortization	21,977	68,072	29,872	25,343	14,111	134,032
Changes in operating assets and liabilities:						
Prepaid expenses and other current assets	17,963	(30,648)	(49,394)	(29,365)	(163,933)	(272,293)
Accounts payable and accrued expenses	12,945	166,471	444,412	363,528	383,630	1,007,458
Due to affiliate	31,194	(37,660)	(265,466)	(265,466)	—	—
Accrued compensation and related expenses	9,300	9,843	118,456	61,516	27,302	164,901
Net cash used in operating activities	(1,701,355)	(6,755,398)	(5,931,250)	(2,756,830)	(7,005,554)	(21,369,231)
Investing activities:						
Purchases of marketable securities available-for-sale	—	—	(1,250,000)	(1,250,000)	—	(1,250,000)
Acquisitions of property and equipment	(319,441)	(17,014)	(10,537)	(7,371)	(149,985)	(496,977)
Proceeds from sale of property and equipment	—	—	194,821	194,821	—	194,821
Net cash used in investing activities	(319,441)	(17,014)	(1,065,716)	(1,062,550)	(149,985)	(1,552,156)
Financing activities:						
Sales of common stock	—	—	—	—	—	50,000
Sales of preferred stock, net of issuance costs	5,000,000	—	9,656,547	8,307,903	17,156,104	36,812,651
Advances received for the sale of convertible preferred stock	—	—	300,000	—	(300,000)	—
Net cash provided by financing activities	5,000,000	—	9,956,547	8,307,903	16,856,104	36,862,651
Net increase in cash and cash equivalents	2,979,204	(6,772,412)	2,959,581	4,488,523	9,700,565	13,941,264
Cash and cash equivalents, beginning of period	5,074,326	8,053,530	1,281,118	1,281,118	4,240,699	—
Cash and cash equivalents, end of period	$ 8,053,530	$ 1,281,118	$ 4,240,699	$ 5,769,641	$ 13,941,264	$ 13,941,264

See accompanying notes.

MediciNova, Inc.
(a development stage company)

Notes to Financial Statements

(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

1. The Company, Basis of Presentation and Summary of Significant Accounting Policies

The Company

MediciNova, Inc. ("MediciNova" or the "Company") was incorporated in the state of Delaware in September 2000. The Company was founded as a majority-owned subsidiary of Tanabe Seiyaku Co., Ltd. (together with its affiliates, "Tanabe") in Japan. As of September 30, 2004, Tanabe owned approximately 15% of the Company. MediciNova is a specialty pharmaceutical company focused on the acquisition, development and commercialization of innovative pharmaceutical products. The Company's in-licensed compounds and its pipeline, which includes several compounds in clinical testing, target a variety of prevalent medical conditions, including premature labor, cancer and asthma (see Note 5).

Basis of Presentation

The Company's primary activities since incorporation have been organizational activities, including recruiting personnel, establishing office facilities, conducting research and development, performing business and financial planning and raising capital. Accordingly, the Company is considered to be in the development stage.

The Company has sustained operating losses since inception and expects such losses to continue over the next several years. Management plans to continue financing the operations with a combination of equity issuances and debt arrangements. If adequate funds are not available, the Company may be required to delay, reduce the scope of, or eliminate one or more of its research or development programs, or cease operations.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the financial statements as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, management evaluates their estimates and judgments. Management bases estimates on historical experience and on various other factors that they believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Unaudited Interim Results

The accompanying unaudited interim balance sheet as of June 30, 2004, the statements of operations and cash flows for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 and the statement of stockholders' equity for the six months ended June 30, 2004 are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments necessary to present fairly the Company's financial position as of June 30, 2004 and results of operations and cash flows for the six months ended June 30, 2003 and 2004. The results of operations for the six months ended June 30, 2004 are not necessarily indicative of the results to be expected for the year ending December 31, 2004 or for any other interim period or for any other future year.

MediciNova, Inc.
(a development stage company)

Notes to Financial Statements—(Continued)

(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

Unaudited Pro Forma Stockholders' Equity

The unaudited pro forma stockholders' equity information in the accompanying balance sheet assumes the conversion of the outstanding shares of convertible preferred stock at June 30, 2004 into 39,115,000 shares of common stock as though the completion of the initial public offering had occurred on June 30, 2004. Common shares issued in such initial public offering and any related estimated net proceeds are excluded from such pro forma information (also see Note 9).

Cash and Cash Equivalents

Cash and cash equivalents consists of cash, and other highly liquid investments with original maturities of three months or less from the date of purchase.

Marketable Securities Available-for-sale

Investments with an original maturity of more than three months are considered short-term investments and have been classified by management as marketable securities available-for-sale. Such investments consist of municipal auction rate securities, with maturities through 2040, and are carried at fair value, with unrealized gains and losses, if material, included as a separate component of stockholders' equity.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to a significant concentration of credit risk consist primarily of cash, cash equivalents and marketable securities available-for-sale. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. However, management believes the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. Additionally, the Company has established guidelines regarding diversification of its investment and their maturities, which are designed to maintain safety and liquidity.

Fair Value of Financial Instruments

The Company's financial instruments including cash and cash equivalents, accounts payable, and accrued liabilities, are carried at cost, which management believes approximates fair value given their short-term nature.

Property and Equipment

Property, which consists of leasehold improvements, and equipment is stated at cost and depreciated using the straight-line method over the estimated useful lives of the related assets. The useful life for equipment is five years and leasehold improvements are amortized over the lesser of the useful life or the term of the lease. The Company's current lease expires in 2008.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. The impairment

loss, if recognized, would be based on the excess of the carrying value of the impaired asset over its respective fair value. Impairment, if any, is assessed using discounted cash flows. Through June 30, 2004, there has been no such impairment.

Research and Development

Research and development expenses consist of costs incurred to further the Company's research and development activities and include salaries and related employee benefits, costs associated with clinical trials, non-clinical activities such as toxicology testing, regulatory activities, research-related overhead expenses, and fees paid to external service providers and contract research organizations who conduct certain research and development activities on behalf of the Company. Research and development costs are expensed as incurred.

Income Taxes

In accordance with Statement of Financial Accounting Standards ("SFAS") No. 109, *Accounting for Income Taxes*, a deferred tax asset or liability is determined based on the difference between the financial statement and the tax basis of assets and liabilities as measured by the enacted tax rates, which will be in effect when these differences reverse. The Company provides a valuation allowance against net deferred tax assets unless, based upon the available evidence, it is more likely than not that the deferred tax assets will be realized.

Stock-Based Compensation

The Company has elected to follow Accounting Principles Board ("APB") Opinion No. 25, *Accounting for Stock Issued to Employee*s, and related Interpretations in accounting for its employee stock options and warrants as permitted by SFAS No. 123, *Accounting for Stock-Based Compensation*. Under APB Opinion No. 25, if the exercise price of the Company's employee stock options or warrants is not less than the fair value of the underlying stock on the date of grant, no compensation expense is recognized. In determining the fair value of the common stock, the Board of Directors considered, among other factors, (i) the advancement of the Company's technology, (ii) the Company's financial position and (iii) the fair value of the Company's common stock or preferred stock as determined in arm's-length transactions.

In connection with the grant of certain stock options to employees during the six months ended June 30, 2004, the Company recorded deferred stock-based compensation within stockholders' equity of $1,151,500, which represents the difference between the estimated fair value of the common stock and the option exercise price at the date of grant (also see Note 6, "Founders' Common Stock and Warrants"). Such amount will be amortized over the vesting period of the applicable options on a straight-line basis. The expected future amortization expense for deferred stock-based compensation for stock option grants through June 30, 2004 is as follows:

Six months ending December 31, 2004	$ 143,938
2005	287,875
2006	287,875
2007	287,875
2008	119,947
	$ 1,127,510

MediciNova, Inc.
(a development stage company)

Notes to Financial Statements—(Continued)

(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

Pro forma information regarding net loss is required by SFAS No. 123, and has been determined as if the Company had accounted for all of its employee stock option grants under the fair value method of that statement. The fair value for these options was estimated at the date of grant using the Minimum Value pricing model with the following weighted average assumptions:

	Years ended December 31,			Six months ended June 30,
	2001	2002	2003	2004
Dividend yield	—	—	—	—
Risk-free interest rate	4.0%	3.8%	3.0%	3.9%
Volatility	—	—	—	—
Expected life	5 years	5 years	5 years	5 years

For purposes of disclosures required by SFAS No. 123, the estimated fair value of the options is amortized on a straight-line basis over the vesting period. The Company's pro forma information is as follows:

	Years ended December 31,			Six months ended June 30,	
	2001	2002	2003	2003	2004
Net loss as reported	$ (1,794,734)	$ (6,931,476)	$ (6,209,130)	$ (2,912,386)	$ (26,696,604)
Add: total stock-based employee compensation expense included in reported net loss	—	—	—	—	19,429,940
Deduct: stock-based employee compensation expense determined under the fair value method	—	—	(21,500)	(18,500)	(3,003,520)
Adjusted net loss	$ (1,794,734)	$ (6,931,476)	$ (6,230,630)	$ (2,930,886)	$ (10,270,184)
Basic and diluted net loss per share, as reported	$ (3.59)	$ (13.86)	$ (12.42)	$ (5.82)	$ (53.39)
Adjusted basic and diluted net loss per share	$ (3.59)	$ (13.86)	$ (12.46)	$ (5.86)	$ (20.54)

The adjusted net loss for the six months ended June 30, 2004 is less than the reported net loss due to variable measurement of the fair value of the founders' warrants required by APB No. 25 as compared to grant date measurement of fair value required by SFAS No. 123.

Comprehensive Income

The Company has adopted SFAS No. 130, *Reporting Comprehensive Income*, which requires that all components of comprehensive income, including net income, be reported in the financial statements in the period in which they are recognized. Comprehensive income is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Net income and other comprehensive income, including foreign currency translation adjustments and unrealized gains and losses on investments, shall

MediciNova, Inc.
(a development stage company)

Notes to Financial Statements—(Continued)

(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

be reported, net of their related tax effect, to arrive at comprehensive income. Comprehensive loss did not differ from net loss for all periods presented.

Net Loss Per Share

Basic net loss per share attributable to common stockholders is calculated by dividing the net loss by the weighted average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted average number of common share equivalents outstanding for the period determined 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 share when their effect is dilutive.

The unaudited pro forma basic and diluted net loss per share is calculated by dividing the net loss by the weighted average number of common shares outstanding for the period plus the weighted average number of common shares resulting from the assumed conversion of the outstanding shares of convertible preferred stock at June 30, 2004 which will occur upon the closing of the initial public offering contemplated by this prospectus. The assumed conversion is calculated using the as-if-converted method, as if such conversion had occurred as of the beginning of each period presented or the original issuance, if later.

MediciNova, Inc.
(a development stage company)
Notes to Financial Statements—(Continued)
(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

	Years ended December 31,			Six months ended June 30,	
	2001	2002	2003	2003	2004
Historical					
Net loss (numerator)	$ (1,794,734)	$ (6,931,476)	$ (6,209,130)	$ (2,912,386)	$ (26,696,604)
Weighted average common shares outstanding (denominator)	500,000	500,000	500,000	500,000	500,000
Basic and diluted net loss per share	$ (3.59)	$ (13.86)	$ (12.42)	$ (5.82)	$ (53.39)
Pro Forma					
Net loss			$ (6,209,130)		$ (26,696,604)
Pro forma basic and diluted net loss per share (unaudited)			$ (0.37)		$ (0.96)
Shares used above			500,000		500,000
Pro forma adjustments to reflect assumed weighted average effect of conversion of preferred stock (unaudited)			16,278,767		27,446,401
Pro forma shares used to compute basic and diluted net loss per share (unaudited)			16,778,767		27,946,401
Historical outstanding anti-dilutive securities not included in diluted net loss per share calculation					
Convertible preferred stock (as-converted)	10,000,000	10,000,000	20,750,000	19,250,000	39,115,000
Common stock warrants	1,500,000	1,500,000	3,650,000	3,350,000	7,823,000
Common stock options	220,000	424,000	390,000	344,000	1,420,000

Recent Accounting Pronouncements

In May 2003, the FASB issued SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity* ("SFAS No. 150"). SFAS No. 150 requires that certain financial instruments, which under previous guidance were accounted for as equity, must now be accounted for as liabilities. The financial instruments affected include mandatorily redeemable stock, certain financial instruments that require or may require the issuer to buy back some of its shares in exchange for cash or other assets and certain obligations that can be settled with shares of stock. SFAS No. 150 is effective for all financial instruments entered into or modified after May 31, 2003 and otherwise is effective the beginning of the first interim period after June 15, 2003. The adoption of SFAS No. 150 did not have a material impact on the Company's financial statements.

MediciNova, Inc.
(a development stage company)
Notes to Financial Statements—(Continued)
(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

2. Balance Sheet Details

Property and equipment consist of the following:

	December 31, 2002	December 31, 2003	June 30, 2004
Leasehold improvements	$ —	$ —	$ 14,793
Furniture and equipment	331,260	39,852	173,710
Software	5,195	7,038	8,096
	336,455	46,890	196,599
Less accumulated depreciation and amortization	(90,049)	(14,640)	(28,475)
	$ 246,406	$ 32,250	$ 168,124

Accrued expenses consist of the following:

	December 31, 2002	December 31, 2003	June 30, 2004
Research and development expenses	$ —	$ —	$ 134,472
Issuance costs	—	150,000	—
Franchise taxes	—	74,525	—
Professional fees	49,599	31,375	63,813
Other	21,160	38,600	109,544
	$ 70,759	$ 294,500	$ 307,829

3. Related Party Transactions

Research Services Agreement

During 2001, the Company entered into a research services agreement with Tanabe Research Laboratories U.S.A., Inc. (“TRL”). Under this agreement, the Company paid TRL for research services provided pursuant to approved service plans at a rate of $250,000 per year per FTE (full time equivalent of a scientist engaged in performing services under agreement). The agreement was terminated on May 31, 2003. In addition, TRL charged the Company for certain administrative expenses beginning in September 2000. During the years ended December 31, 2001, 2002 and 2003, the six months ended June 30, 2003, and the period from September 26, 2000 (inception) to June 30, 2004, respectively, the gross research and administrative fees paid to TRL were $466,603, $2,652,944 and $737,199, $737,199 and $3,870,897, respectively. As of December 31, 2002, the Company owed TRL $265,466. As of December 31, 2003 and June 30, 2004, no amounts were payable to TRL.

Sale of Fixed Asset

In May 2003, the Company sold equipment to TRL for proceeds of $194,821. The net book value of the equipment on the date of sale was equal to the sale price and therefore no gain or loss was recorded.

MediciNova, Inc.
(a development stage company)
Notes to Financial Statements—(Continued)
(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

Other Related-Party Transactions

The Company's board of directors approved an arrangement in September 2001 to engage Dr. Yuichi Iwaki, Chairman, as a consultant in connection with financing transactions and business development activities, pursuant to which the Company pays Dr. Iwaki $20,000 per month for his services rendered. Compensation paid to Dr. Iwaki during the years ended December 31, 2001, 2002 and 2003 and the six months ended June 30, 2004 was $6,250, $148,000, $190,000 and $120,000, respectively.

4. Commitments

Facility Lease

In 2004, the Company leased its corporate headquarters under a non-cancelable operating lease that expires in February 2008. The Company has the option to renew the lease for three years. Rent expense for the years ended December 31, 2001, 2002 and 2003 and the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 was $31,346, $34,284, $126,759, $56,623, $112,795 and $311,598, respectively.

Future minimum payments are as follows at June 30, 2004:

	Operating Lease
Six months ending December 31, 2004	$ 150,856
2005	400,392
2006	435,356
2007	448,997
2008	37,511
	$ 1,473,112

5. License Agreements

As a specialty pharmaceutical company focused on acquiring, developing and commercializing innovative pharmaceutical products, the Company has entered in various license agreements to acquire the rights to various product candidates for their development and commercialization. Pursuant to these agreements, the Company obtained exclusive (as to particular territories), sublicenseable licenses to the patent rights and know-how for all indications under the agreements. The Company will generally make an upfront payment and is required to make additional payments upon the achievement of specific development and regulatory approval milestones. The Company is also obligated to pay royalties under the agreements until the later of the expiration of the applicable patent or the applicable last date of market exclusivity after the first commercial sale, on a country-by-country basis.

The amount expended under these agreements and charged to research and development expense during the years ended December 31, 2002 and 2003 and the six months ended June 30, 2003 and 2004 was approximately $1,400,000, $300,000, $200,000, and $2,300,000, respectively. Future potential milestone payments total approximately $71 million and there are no minimum royalties required under any of the agreements. From June 19, 2002, the date of our first license agreement, through June 30, 2004, the Company had entered into five license agreements with Japanese and British pharmaceutical companies and a research institute.

MediciNova, Inc.
(a development stage company)
Notes to Financial Statements—(Continued)
(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

6. Stockholders' Equity

Convertible Preferred Stock

The authorized, issued and outstanding shares of convertible preferred stock by series are as follows:

	December 31, 2002				December 31, 2003			
	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Aggregate Liquidation Preference	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Aggregate Liquidation Preference
Series A	1,000,000	1,000,000	$ 10,000,000	$ 10,000,000	1,000,000	1,000,000	$ 10,000,000	$ 10,000,000
Series B	—	—	—	—	500,000	107,500	9,656,547	10,750,000
Undesignated	2,000,000	—	—	—	1,500,000	—	—	—
	3,000,000	1,000,000	$ 10,000,000	$ 10,000,000	3,000,000	1,107,500	$ 19,656,547	$ 20,750,000

	June 30, 2004			
	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Aggregate Liquidation Preference
Series A	1,000,000	1,000,000	$ 10,000,000	$ 10,000,000
Series B	500,000	291,150	26,812,651	29,115,000
Undesignated	3,500,000	—	—	—
	5,000,000	1,291,150	$ 36,812,651	$ 39,115,000

No dividend or distribution can be paid on any share of common stock unless a dividend or distribution is paid or declared with respect to each share of Series A and B convertible preferred stock.

The Series A and B convertible preferred stock must vote equally with the shares of the common stock of the Company and not as a separate class at any annual or special meeting of stockholders of the Company. Upon any liquidation, dissolution, or winding up of the Company, the holders of convertible preferred stock would be entitled to be paid out of the assets of the Company an amount per share of convertible preferred stock equal to the original issue price (Series A of $10, Series B of $100) plus all declared and unpaid dividends.

Each share of the Series A convertible preferred stock is convertible at the option of the holder at any time into shares of common stock of the Company, at a conversion rate of 10 shares of common stock for each share of Series A convertible preferred stock and at a conversion rate of 100 shares of common stock for each share of Series B convertible preferred stock subject to adjustment under certain conditions.

The Series A and B convertible preferred stock will automatically convert into common shares upon (i) the affirmative election of the holders of at least a majority of the outstanding shares of the respective convertible preferred stock, or (ii) immediately upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933.

Founders' Common Stock and Warrants

At inception, the Company issued a total of 500,000 shares of its common stock to the Company's two founders who then became officers and directors of the Company, for proceeds of $50,000. The Company also

MediciNova, Inc.
(a development stage company)

Notes to Financial Statements—(Continued)

(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

granted the two officers and directors warrants to purchase 500,000 shares of its common stock at an exercise price of $0.10. The warrants contained an antidilution clause providing the founders with the right to purchase additional shares of common stock any time there was a dilution event so that they could maintain their original ownership percentage. The warrants are considered variable and, unless the number of underlying shares of common stock become fixed or exercised, will require compensation to be recorded when the fair value of the underlying options exceeds the exercise price. As of December 31, 2003, the warrants were adjusted to allow the holders to purchase up to 3,650,000 shares of common stock. The warrants expire on September 26, 2007. Based on the Company's early stage of development, its limited resources, and the preferences of the preferred stock, the Company believes that the fair value of the underlying shares of common stock did not exceed the exercise price of the warrants at December 31, 2003.

During the six months ended June 30, 2004, in conjunction with the sale of Series B preferred stock, the common stock underlying the warrants were adjusted up to 7,323,000. Based on subsequent financing activities (see Note 9) and the initial public offering contemplated by this prospectus, the Company believes that the estimated fair value of the 7,323,000 shares exceeds the $0.10 exercise price of the warrants and, as a result, recorded stock-based compensation in the amount of $19,405,950.

Other Warrants

In May 2004, as compensation for fundraising efforts related to the sale of Series B preferred stock, the Company issued a warrant to purchase 500,000 shares of common stock with an exercise price of $1.00.

Stock Options

The Company has a stock incentive plan (the "Plan") under which incentive stock options may be granted for 2,000,000 shares of common stock to officers and key employees of the Company. Stock options have been granted with an exercise price of $1.00 per share and vest 25% after the first year of service from the grant date, with the remaining shares vesting in equal monthly installments over the subsequent 36 months of service. An employee may exercise stock options prior to vesting in which case the Company has the right to repurchase the unvested shares at the original exercise price if the employee is terminated before vesting in all shares occurs.

Following the vesting period, options are exercisable until the earlier of 90 days after the employee's termination with the Company or the ten-year anniversary of the initial grant, subject to adjustment under certain conditions. The Company has the right to purchase all of those shares that the employees have or will acquire under these stock options. The purchase price for any vested shares repurchased will be the greater of the fair market value of such shares on the date of purchase or the aggregate exercise price for such shares.

MediciNova, Inc.
(a development stage company)
Notes to Financial Statements—(Continued)
(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

A summary of the Company's stock option activity and related information for the period from September 26, 2000 (inception) to June 30, 2004 is as follows:

	Options	Weighted average exercise price
Granted	220,000	$ 1.00
Balance at December 31, 2000	220,000	$ 1.00
Granted	—	$ —
Balance at December 31, 2001	220,000	$ 1.00
Granted	204,000	$ 1.00
Balance at December 31, 2002	424,000	$ 1.00
Granted	70,000	$ 1.00
Cancelled	(104,000)	$ 1.00
Balance at December 31, 2003	390,000	$ 1.00
Granted	1,030,000	$ 1.00
Balance at June 30, 2004	1,420,000	$ 1.00

The exercise price for all vested and unvested options outstanding for all periods presented was $1.00 per share. The weighted average remaining contractual life of options outstanding at December 31, 2003 and June 30, 2004 was 8.1 and 9.3 years, respectively. The weighted average fair value of options granted during the period from September 26, 2000 (inception) to December 31, 2000 and during the years ended December 31, 2001, 2002, 2003 was immaterial. The weighted average fair value of options granted during the six months ended June 30, 2004 was approximately $1.26. At December 31, 2003 and June 30, 2004, respectively, 161,250 and 201,250 options were vested. No options have been exercised since Plan inception.

Common Stock Reserved for Future Issuance

Common stock reserved for future issuance consists of the following:

	December 31, 2003	June 30, 2004
Conversion of preferred stock	20,750,000	39,115,000
Common stock warrants	3,650,000	7,823,000
Common stock options outstanding	390,000	1,420,000
Common stock options authorized for future grant	1,610,000	580,000
	26,400,000	48,938,000

7. Income Taxes

From January 1, 2001 through March 31, 2003, the Company was included in the consolidated federal tax return of Tanabe Holding America, Inc., the U.S. holding Company of Tanabe Seiyaku Co., Ltd., and filed a combined California tax return for the same period. Under a tax allocation agreement with Tanabe Holding

MediciNova, Inc.
(a development stage company)
Notes to Financial Statements—(Continued)
(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

America, Inc. and affiliates effective January 1, 2001, the combined tax liability was allocated based on each company's share of taxable income. Subsequent to March 31, 2003, the Company files on a stand alone basis for federal and California income tax purposes.

Significant components of the Company's deferred tax assets and liabilities are shown below. A valuation allowance has been established to offset the deferred tax assets, as realization of such assets is uncertain.

	December 31,		
	2001	2002	2003
Deferred tax assets:			
Net operating loss carryforwards	$ 407,000	$ 2,172,000	$ 4,347,000
Capitalized license	—	539,000	501,000
Other, net	—	(31,000)	28,000
Net deferred tax assets	407,000	2,680,000	4,876,000
Valuation allowance for deferred tax assets	(407,000)	(2,680,000)	(4,876,000)
Total	$ —	$ —	$ —

At December 31, 2003, the Company had federal and California tax net operating loss carryforwards of approximately $12,357,000 and $381,000, respectively. The federal and California tax loss carryforwards will begin expiring in 2021 and 2011, respectively, unless previously utilized.

Pursuant to Internal Revenue Code Section 382 and 383, use of the Company's net operating loss and credit carryforwards may be limited because of a cumulative change in ownership of more than 50%.

8. Employee Savings Plan

The Company has an employee savings plan available to substantially all employees. Under the plan, an employee may elect salary reductions which are contributed to the plan. The plan provides for discretionary contributions by the Company, which totaled approximately $19,249, $22,231, $37,041 and $34,984 for the years ended December 31, 2001, 2002 and 2003 and the six months ended June 30, 2004, respectively.

9. Subsequent Events

Series C Preferred Stock Sale

On September 2, 2004, the Company's Certificate of Incorporation was restated to increase the number of authorized shares of common and preferred stock to 83,000,000 and 28,959,006, respectively. Preferred stock amounting to 1,000,000, 291,150 and 27,667,856 were designated as Series A, B and C preferred stock, respectively.

On September 2, 2004, the Company sold 27,667,856 shares of Series C redeemable convertible preferred stock at a purchase price of $1.62 per share for total net proceeds of $43,431,156, net of $1,390,771 of estimated issuance costs.

MediciNova, Inc.
(a development stage company)

Notes to Financial Statements—(Continued)

(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

The Series C preferred stock was sold at a price per share below the anticipated initial public offering price contemplated by this prospectus. Accordingly, pursuant to Emerging Issues Task Force ("EITF") Issue No. 98-5, *Accounting for Convertible Securities with Beneficial Conversion Features*, the Company will record a deemed dividend on the Series C preferred stock of $31,264,677, which is equal to the number of shares of Series C preferred stock sold times the difference between the estimated fair value of the underlying common stock and the Series C preferred stock conversion price per share. The deemed dividend will increase the net loss applicable to common stockholders in the calculation of basic and diluted net loss per common share and will be reported as a charge to accumulated deficit and a credit to additional paid-in capital, with no net impact on total stockholders' equity.

Each share of the Series C preferred stock is convertible at the option of the holder at any time into shares of common stock of the Company, at a one-for-one conversion rate subject to adjustment under certain conditions.

The holders of shares of Series C preferred stock are entitled to receive non-cumulative dividends at a rate of $0.1296 per share per annum, when and if declared by the Board of Directors and prior to the payment of any dividend on any other capital stock. No dividend or distribution can be paid on any share of common stock unless a dividend or distribution is paid or declared with respect to each share of Series A, B and C preferred stock.

The holders of each share of Series C preferred stock have the right to one vote for each share of common stock into which their shares are convertible.

In the event of a liquidation, dissolution or winding up of the Company, before any distribution or payment shall be made to any other common or preferred stockholder, holders of Series C preferred stock are entitled to a liquidation preference of $1.62 per share plus any declared and unpaid dividends.

The Series A, B and C preferred shares will automatically convert into common shares at a conversion rate of 100-to-one, ten-to-one and one-to-one, respectively, upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933 (as amended) resulting in at least $40,000,000 of gross proceeds.

The redemption provisions of the Series C preferred stock stipulate that at any time beginning in August 2010, upon request of holders of at least a majority of the then outstanding Series C preferred stock, the Company is required to redeem the Series C preferred stock of each requesting holder. The redemption shall take place in three equal annual installments with the initial redemption no later than 60 days after redemption is requested. The redemption price is equal to $1.62 plus any declared and unpaid dividends at the date of the redemption request and is limited to funds legally available.

On September 2, 2004, in conjunction with the sale of Series C preferred stock, the Company and its two founders amended the terms of their warrant agreements. In exchange for relinquishing any future anti-dilution rights, the number of underlying common shares that could be purchased under the terms of the warrants was increased and fixed at 12,856,572, up from 7,323,000. Since all of the warrants were previously variable, the Company will record stock-based compensation of $14,663,966 based on the estimated fair value of the underlying common stock on September 2, 2004, less any stock-based compensation previously recorded. Since the number of warrants became fixed at September 2, 2004, no additional compensation will be recorded.

MediciNova, Inc.
(a development stage company)

Notes to Financial Statements—(Continued)

(Information as of June 30, 2004 and for the six months ended June 30, 2003 and 2004 and the period from September 26, 2000 (inception) to June 30, 2004 is unaudited)

The following table sets forth our redeemable convertible preferred stock and stockholders' equity as of June 30, 2004, on an actual basis and on a pro forma basis to give effect to: (1) the sale of Series C preferred stock and related deemed dividend and stock-based compensation from founders' warrants; and (2) the conversion of all of the Company's outstanding shares of preferred stock into 66,782,856 shares of common stock.

	Number of Shares			
	June 30, 2004 Actual	Series C and Related	Conversion of Preferred	June 30, 2004 Pro Forma
Redeemable convertible preferred stock	—	27,667,856	(27,667,856)	—
Convertible preferred stock	1,291,150	—	(1,291,150)	—
Common stock	500,000	—	66,782,856	67,282,856
Total shares outstanding	1,791,150	27,667,856	37,823,850	67,282,856

	Amount			
	June 30, 2004 Actual	Series C and Related	Conversion of Preferred	June 30, 2004 Pro Forma
Redeemable convertible preferred stock	$ —	$ 43,431,156	$ (43,431,156)	$ —
Convertible preferred stock	12,912	—	(12,912)	—
Common stock	500	—	66,783	67,283
Additional paid-in capital	57,406,689	45,928,613	43,377,285	146,712,587
Deferred employee stock-based compensation	(1,127,510)	—	—	(1,127,510)
Deficit accumulated during the development stage	(41,833,269)	(45,928,613)	—	(87,761,882)
Total redeemable convertible preferred stock and stockholders' equity	$ 14,459,322	$ 43,431,156	$ —	$ 57,890,478

Changes in Capitalization

On September 28, 2004, the Company's board of directors approved the filing of a restated certificate of incorporation to provide for authorized capital stock of 200,000,000 shares of common stock and 5,000,000 shares of undesignated preferred stock. The changes will become effective immediately prior to the completion of the initial public offering contemplated by this prospectus.

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Shares

Common Stock

PROSPECTUS

Daiwa Securities SMBC

, 2005

Until , 2005 (90 days after the date of this prospectus), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of common stock being registered. All amounts are estimates except the SEC registration fee and the Mothers Market listing fee.

	Amount to be Paid
SEC Registration Fee	$ 12,670
Mothers Market Listing Fee	*
Printing and Engraving	*
Legal Fees and Expenses	*
Accounting Fees and Expenses	*
Blue Sky Fees and Expenses	*
Transfer Agent Fees	*
Director & Officer Liability Insurance (1933 Act Premiums)	*
Miscellaneous	*
Total	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933, as amended (the "Securities Act").

As permitted by Delaware General Corporation Law, our restated certificate of incorporation includes a provision that eliminates the personal liability of our directors for monetary damages for breach of fiduciary duty as a director, except to the extent that exculpation from liability is not permitted under the Delaware General Corporation Law as in effect at the time such liability is determined.

As permitted by the Delaware General Corporation Law, our bylaws provide for indemnification of our directors, officers, employees and other agents to the extent and under the circumstances permitted by the Delaware General Corporation Law.

We have also entered into agreements with certain of our directors and executive officers that will require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors and executive officers to the fullest extent not prohibited by law.

We have purchased directors and officers liability insurance.

Reference is also made to the Underwriting Agreement, which provides for the indemnification of our officers, directors and controlling persons against certain liabilities.

Item 15. Recent Sales of Unregistered Securities

During the past three years, the following securities were sold or issued by us without registration under the Securities Act:

1. From September 2000 through September 30, 2004, we granted stock options to purchase 1,510,000 shares of our common stock, net of cancellations, at an exercise price of $1.00 per share to employees, consultants, directors and other service providers pursuant to our 2000 General Stock Incentive Plan. For these issuances we relied on the exemption provided by Section 4(2) of the Securities Act and Rule 701 promulgated thereunder.

2. Between March 31, 2003 and May 20, 2004, we issued and sold 291,150 shares of Series B preferred stock for an aggregate purchase price of $29,115,000 to 18 accredited investors. For these issuances we relied on the exemption provided by Section 4(2) of the Securities Act and Regulation D promulgated thereunder.

3. On May 24, 2004, in connection with a consulting fee owed by us, we issued a warrant to Bioven Advisory, Inc. to purchase 500,000 shares of our common stock at an exercise price of $1.00 per share. For this issuance we relied on the exemption provided by Section 4(2) of the Securities Act.

4. On September 2, 2004, we issued and sold 27,667,856 shares of Series C preferred stock for an aggregate purchase price of $44,821,926.72 to 29 accredited investors. For these issuances we relied on the exemption provided by Section 4(2) of the Securities Act and Regulation D promulgated thereunder.

The recipients of securities in the transactions noted in all of the paragraphs above represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and instruments issued in such transactions.

Item 16. Exhibits and Financial Statement Schedule

(a) Exhibits

EXHIBIT INDEX

Exhibit Number	Description
1.1*	Form of Underwriting Agreement.
3.1	Restated Certificate of Incorporation of the Registrant.
3.2	Form of Restated Certificate of Incorporation of the Registrant, to be effective upon the date of the prospectus to which this Registration Statement relates.
3.3	Bylaws of the Registrant.
3.4	Form of Amended and Restated Bylaws of the Registrant, to be effective upon the date of the prospectus to which this Registration Statement relates.
4.1	Form of Common Stock Certificate.
4.2	Amended and Restated Registration Rights Agreement by and among the Registrant, its founders and the investors named therein, dated September 2, 2004.
4.3	Amended and Restated Stock Purchase Warrant held by Takashi Kiyoizumi, dated September 2, 2004.
4.4	Amended and Restated Stock Purchase Warrant held by Yuichi Iwaki, dated September 2, 2004.
5.1*	Opinion of Pillsbury Winthrop LLP.

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Exhibit Number	Description
10.1	2000 General Stock Incentive Plan of the Registrant.
10.2*	Form of 2004 Stock Incentive Plan of the Registrant.
10.3*	Form of Indemnification Agreement between the Registrant and its officers and directors.
10.4*†	License Agreement between the Registrant and Kyorin Pharmaceutical Co,. Ltd., dated March 14, 2002.
10.5*†	License Agreement between the Registrant and Angiogene Pharmaceuticals, Ltd., dated June 19, 2002.
10.6*†	License Agreement by and among the Registrant, Riken and Dr. Katsuhiko Mikoshiba, dated June 1, 2003.
10.7*†	Exclusive License Agreement between the Registrant and Kissei Pharmaceutical Co., Ltd., dated February 25, 2004.
10.8*†	License Agreement between MediciNova, Inc. and Mitsubishi Pharma Corporation, dated April 27, 2004.
10.9*†	Master Services Agreement between the Registrant and Asahi Kasei Pharma Corporation, dated December 1, 2003.
10.10*†	Master Services Agreement between the Registrant and Argenes Inc., dated June 25, 2004.
10.11	Employment Agreement between the Registrant and Takashi Kiyoizumi, M.D., Ph.D., dated September 26, 2003.
10.12	Employment Agreement between the Registrant and Brian Anderson, dated April 26, 2004.
10.13	Employment Agreement between the Registrant and Richard E. Gammans, Ph.D., dated June 14, 2004.
10.14	Employment Agreement between the Registrant and Kenneth W. Locke, Ph.D., dated September 26, 2000, as amended.
10.15	Employment Agreement between the Registrant and Mark Lotz, dated February 2, 2004.
10.16	Employment Agreement between the Registrant and Joji Suzuki, M.D., Ph.D., effective May 10, 2004, as amended.
10.17	Research Services Agreement between the Registrant and Tanabe Research Laboratories U.S.A., Inc., dated June 1, 2001.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
23.2*	Consent of Pillsbury Winthrop LLP (included in Exhibit 5.1).
24.1	Power of attorney (reference is made to Page II-5).

* To be filed by amendment.

† The Registrant has applied (or will apply) for Confidential Treatment with respect to portions of this Exhibit.

(b) Financial Statement Schedule

Item 17. Undertakings

The undersigned registrant hereby undertakes to provide to the underwriter at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the U.S. Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by us of expenses incurred or paid by one of our directors, officers or controlling persons in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered hereunder, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

We hereby undertake that:

1. For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by us pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

2. For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, we have duly caused this Registration Statement to be signed on our behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on the 30th day of September, 2004.

MEDICINOVA, INC.

By: /s/ TAKASHI KIYOIZUMI

Takashi Kiyoizumi, M.D., Ph.D.
Chief Executive Officer, President and Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Takashi Kiyoizumi, his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the U.S. Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof. This power of attorney may be executed in counterparts.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Name	Title	Date
/s/ TAKASHI KIYOIZUMI **Takashi Kiyoizumi, M.D., Ph.D.**	Chief Executive Officer, President and Director (Principal Executive Officer and Principal Financial and Accounting Officer)	September 30, 2004
/s/ YUICHI IWAKI **Yuichi Iwaki, M.D., Ph.D.**	Director	September 30, 2004
John K. A. Prendergast, Ph.D.	Director	September 30, 2004
/s/ DANIEL VAPNEK **Daniel Vapnek, Ph.D.**	Director	September 30, 2004
/s/ HIDEKI NAGAO **Hideki Nagao**	Director	September 30, 2004

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EXHIBIT INDEX

Exhibit Number	Description
1.1*	Form of Underwriting Agreement.
3.1	Restated Certificate of Incorporation of the Registrant.
3.2	Form of Restated Certificate of Incorporation of the Registrant, to be effective upon the date of the prospectus to which this Registration Statement relates.
3.3	Bylaws of the Registrant.
3.4	Form of Amended and Restated Bylaws of the Registrant, to be effective upon the date of the prospectus to which this Registration Statement relates.
4.1	Form of Common Stock Certificate.
4.2	Amended and Restated Registration Rights Agreement by and among the Registrant, its founders and the investors named therein, dated September 2, 2004.
4.3	Amended and Restated Stock Purchase Warrant held by Takashi Kiyoizumi, dated September 2, 2004.
4.4	Amended and Restated Stock Purchase Warrant held by Yuichi Iwaki, dated September 2, 2004.
5.1*	Opinion of Pillsbury Winthrop LLP.
10.1	2000 General Stock Incentive Plan of the Registrant.
10.2*	Form of 2004 Stock Incentive Plan of the Registrant.
10.3*	Form of Indemnification Agreement between the Registrant and its officers and directors.
10.4*†	License Agreement between the Registrant and Kyorin Pharmaceutical Co,. Ltd., dated March 14, 2002.
10.5*†	License Agreement between the Registrant and Angiogene Pharmaceuticals, Ltd., dated June 19, 2002.
10.6*†	License Agreement by and among the Registrant, Riken and Dr. Katsuhiko Mikoshiba, dated June 1, 2003.
10.7*†	Exclusive License Agreement between the Registrant and Kissei Pharmaceutical Co., Ltd., dated February 25, 2004.
10.8*†	License Agreement between MediciNova, Inc. and Mitsubishi Pharma Corporation, dated April 27, 2004.
10.9*†	Master Services Agreement between the Registrant and Asahi Kasei Pharma Corporation, dated December 1, 2003.
10.10*†	Master Services Agreement between the Registrant and Argenes Inc., dated June 25, 2004.
10.11	Employment Agreement between the Registrant and Takashi Kiyoizumi, M.D., Ph.D., dated September 26, 2003.
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* To be filed by amendment.

† The Registrant has applied (or will apply) for Confidential Treatment with respect to portions of this Exhibit.

EXHIBIT 3.1

RESTATED CERTIFICATE OF INCORPORATION
OF
MEDICINOVA, INC.

Takashi Kiyoizumi hereby certifies that:

ONE: The original name of this corporation was Medicinova, Inc. and the date of filing the original Certificate of Incorporation of this corporation with the Secretary of State of the State of Delaware was September 26, 2000. The Certificate of Incorporation of this corporation was restated and filed with the Secretary of State of Delaware on December 7, 2000, amended and filed with the Secretary of State of Delaware on August 1, 2001, further restated and filed with the Secretary of State of Delaware on March 5, 2003, and further restated and filed with the Secretary of State of Delaware on June 11, 2003.

TWO: He is the duly elected and acting President of MediciNova, Inc., a Delaware corporation.

THREE: The Certificate of Incorporation of this corporation is hereby amended and restated to read as follows:

I.

The name of the corporation is **MediciNova, Inc**. (the "**Corporation**" or the "**Company**").

II.

The address of the registered office of the Corporation in the State of Delaware is:

1209 Orange Street Wilmington, New Castle County, Delaware 19801-1196

The name of the Corporation's registered agent at said address is The Corporation Trust Company.

III.

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

IV.

A. This Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the Corporation is authorized to issue is One Hundred Eleven Million Nine Hundred Fifty Nine Thousand Six (111,959,006) shares, Eighty-Three Million (83,000,000) shares of which shall be Common Stock (the "**Common Stock**") and Twenty-Eight Million Nine Hundred Fifty-Nine Thousand Six (28,959,006) shares of which shall be Preferred Stock (the "**Preferred Stock**").

The Preferred Stock shall have a par value of $0.01 per share and the Common Stock shall have a par value of $0.001 per share.

B. The number of authorized shares of Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares of Common Stock or Preferred stock then outstanding and shares of Common Stock reserved for issuance upon the conversion of Preferred Stock) by the affirmative vote of the holders of a majority of the stock of the Corporation (voting together on an as-if-converted basis).

C. One Million (1,000,000) shares of the authorized shares of Preferred Stock are hereby designated "Series A Preferred Stock" (the "**Series A Preferred**"), Two Hundred Ninety-One Thousand One Hundred Fifty (291,150) shares of the authorized shares of Preferred Stock are hereby designated "Series B Preferred Stock" (the "**Series B Preferred**") and the remaining Twenty-Seven Million Six Hundred Sixty-Seven Thousand Eight Hundred Fifty-Six (27,667,856) authorized shares of Preferred Stock are hereby designated "Series C Preferred Stock" (the "**Series C Preferred**").

D. The rights, preferences, privileges, restrictions and other matters relating to the Common Stock, Series A Preferred, Series B Preferred and Series C Preferred are as follows (Note: section references within this Article IV are to other sections within the Article IV unless otherwise expressly provided):

1. DIVIDEND RIGHTS.

(a) The holders of Series C Preferred shall be entitled to receive prior and in preference to the holders of Series A Preferred, Series B Preferred and Common Stock, out of funds legally available therefor, dividends at a rate equal to $0.1296 per annum on each outstanding share of Series C Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares) (the "**Series C Dividends**"). Series C Dividends on each outstanding share of Series C Preferred shall be payable only as and when declared by the Board of Directors of the Company (the "**Board**" or "**Board of Directors**") and shall not accrue or otherwise be deemed to compound. Upon any conversion of shares of the Series C Preferred Stock, all rights to such dividends on such shares shall terminate. Unless all Series C Dividends shall have been paid or set apart, no dividend shall be paid or declared, and no distribution or redemption shall be made, on any shares of the Series A Preferred, Series B Preferred or Common Stock (other than dividends payable solely in capital stock on the capital stock of the Corporation or repurchases of Common Stock from employees of the Corporation pursuant to agreements and arrangements provided for in an equity incentive plan approved by the Board.

(b) No dividend or distribution (other than dividends payable solely in capital stock on the capital stock of the Corporation or repurchases of Common Stock from employees of the Corporation pursuant to agreements and arrangements provided for in an equity incentive plan approved by the Board of Directors) shall be paid on any share of Common Stock unless a dividend or distribution is paid or declared and set apart with respect to each share of Series A Preferred, Series B Preferred and Series C Preferred then outstanding in amounts for each such share of Series A Preferred, Series B Preferred and Series C Preferred which are equal

to or greater than the aggregate amounts of such dividends or distributions as would otherwise be paid on the shares of Common Stock into which each such share of Series A Preferred, Series B Preferred or Series C Preferred, respectively, could then be converted pursuant to the provisions of Section 4 below. In the event of a conversion of any of the shares of Series A Preferred, Series B Preferred or Series C Preferred pursuant to Section 4 below, any declared and unpaid dividends on such shares shall be paid, at the election of the holder(s) thereof, in cash or shares of Common Stock (at the then current fair market value for such shares as determined in good faith by the Board).

2. VOTING RIGHTS.

Except as otherwise provided herein or as required by law, the Series A Preferred, Series B Preferred and Series C Preferred shall be voted equally with the shares of the Common Stock of the Company and not as a separate class, at any annual or special meeting of stockholders of the Company, and may act by written consent in the same manner as the Common Stock, in each case upon the following basis: each holder of shares of Series A Preferred, Series B Preferred and Series C Preferred shall be entitled to such number of votes as shall be equal to the whole number of shares of Common Stock into which such holder's aggregate number of shares of Series A Preferred, Series B Preferred and Series C Preferred are convertible (pursuant to Section 4 hereof) immediately after the close of business on the record date fixed for such meeting or the effective date of such written consent.

3. LIQUIDATION RIGHTS.

(a) Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, before any distribution or payment shall be made to the holders of any Common Stock, Series A Preferred or Series B Preferred, the holders of Series C Preferred shall be entitled to be paid out of the assets of the Company an amount per share of Series C Preferred equal to $1.62 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares, the "**Original Series C Issue Price**") plus all declared and unpaid dividends on such stock, for each share of Series C Preferred held by them. If, upon any such liquidation, distribution, or winding up, the assets of the Company shall be insufficient to make payment in full to all holders of Series C Preferred of the liquidation preference set forth in this Section 3(a), then such assets shall be distributed among the holders of Series C Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled

(b) After the payment of the full liquidation preference of the Series C Preferred as set forth in Section 3(a) above, upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, before any distribution or payment shall be made to the holders of any Common Stock, the holders of Series A Preferred and Series B Preferred shall be entitled to be paid out of the assets of the Company an amount per share of Series A Preferred and Series B Preferred equal to $10.00 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares, the "**Original Series A Issue Price**") and $100.00 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares, the "**Original Series B Issue Price**") plus all declared and unpaid dividends on such stock respectively, for each share of Series A

Preferred and Series B Preferred, respectively, held by them. If, upon any such liquidation, distribution, or winding up, the assets of the Company shall be insufficient to make payment in full to all holders of Series A Preferred and Series B Preferred of the liquidation preference set forth in this Section 3(b), then, subject to Section 3(a) above, such assets shall be distributed among the holders of Series A Preferred and Series B Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

(c) After the payment of the full liquidation preference of the Series A Preferred, Series B Preferred and Series C Preferred as set forth in Sections 3(a) and 3(b) above, the assets of the Company legally available for distribution, if any, shall be distributed ratably to the holders of the Common Stock, the Series A Preferred, the Series B Preferred and the Series C Preferred on an as-if-converted to Common Stock basis.

(d) Unless the holders of a majority of the Series C Preferred elect otherwise (given in writing or by vote at a meeting), the following events shall be considered a liquidation under this Section 3:

(i) any consolidation or merger of the Company with or into any other corporation or other entity or person, or any other corporate reorganization, in which the stockholders of the Company immediately prior to such consolidation, merger or reorganization, own less than 50% of the Company's voting power immediately after such consolidation, merger or reorganization, or any transaction or series of related transactions to which the Company is a party in which in excess of fifty percent (50%) of the Company's voting power is transferred, excluding any consolidation or merger effected exclusively to change the domicile of the Company (an "**Acquisition**"); or

(ii) a sale, lease or other disposition (including, without limitation, by license other than licenses entered into in the ordinary course of the Corporation's business) of all or substantially all of the assets of the Company (an "**Asset Transfer**").

(iii) In any of such events, if the consideration received by this corporation is other than cash, its value will be deemed its fair market value as determined in good faith by the Board. Any securities shall be valued as follows:

(A) The value of such securities shall be the value, if any, ascribed to such securities in the Acquisition documents;

(B) Securities not covered by (A) above and securities subject to investment letter or other similar restrictions on free marketability covered by (C) below:

(1) If traded on a securities exchange or through the Nasdaq National Market, the value shall be deemed to be the average of the closing prices of the securities on such quotation system over the thirty (30) day period ending three (3) days prior to the closing;

(2) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) day period ending three (3) days prior to the closing; and

(3) If there is no active public market, the value shall be the fair market value thereof, as determined by the Board of Directors.

(C) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a shareholder's status as an affiliate or former affiliate) shall be to make an appropriate discount from the market value determined as above in (B)(1), (2) or (3) to reflect the approximate fair market value thereof, as determined by the Board of Directors.

4. CONVERSION RIGHTS.

The holders of the Series A Preferred, Series B Preferred and Series C Preferred shall have the following rights with respect to the conversion of the Series A Preferred, Series B Preferred and Series C Preferred into shares of Common Stock (the "**Conversion Rights**"):

(a) Optional Conversion. Subject to and in compliance with the provisions of this Section 4, any shares of Series A Preferred, Series B Preferred or Series C Preferred may, at the option of the holder, be converted at any time into fully-paid and nonassessable shares of Common Stock. The number of shares of Common Stock to which a holder of (i) Series A Preferred shall be entitled upon conversion shall be the product obtained by multiplying the "**Series A Preferred Conversion Rate**" then in effect (determined as provided in Section 4(b)) by the number of shares of Series A Preferred being converted, (ii) Series B Preferred shall be entitled upon conversion shall be the product obtained by multiplying the "**Series B Preferred Conversion Rate**" then in effect (determined as provided in Section 4(b)) by the number of shares of Series B Preferred being converted, and (iii) Series C Preferred shall be entitled upon conversion shall be the product obtained by multiplying the "**Series C Preferred Conversion Rate**" then in effect (determined as provided in Section 4(b)) by the number of shares of Series C Preferred being converted.

(b) Conversion Rate. The conversion rate in effect at any time for conversion of the (i) Series A Preferred (the "**Series A Preferred Conversion Rate**") shall be the quotient obtained by dividing the Original Series A Issue Price by the "**Series A Preferred Conversion Price**," calculated as provided in Section 4(c), (ii) Series B Preferred (the "**Series B Preferred Conversion Rate**") shall be the quotient obtained by dividing the Original Series B Issue Price by the "**Series B Preferred Conversion Price**," calculated as provided in Section 4(c), and (iii) Series C Preferred (the "**Series C Preferred Conversion Rate**") shall be the quotient obtained by dividing the Original Series C Issue Price by the "**Series C Preferred Conversion Price**," calculated as provided in Section 4(c).

(c) Conversion Price. The conversion price for the Series A Preferred shall initially be $1.00 (the "**Series A Preferred Conversion Price**"), the conversion price for the Series B Preferred shall initially be $1.00 (the "**Series B Preferred Conversion Price**") and the conversion price for the Series C Preferred shall initially be $1.62 (the "**Series C**

Preferred Conversion Price"). Such initial Series A Preferred Conversion Price, Series B Preferred Conversion Price and Series C Preferred Conversion Price shall be adjusted from time to time in accordance with this Section 4. All references to the Series A Preferred Conversion Price herein shall mean the Series A Preferred Conversion Price as so adjusted, all references to the Series B Preferred Conversion Price herein shall mean the Series B Preferred Conversion Price as so adjusted, and all references to the Series C Preferred Conversion Price herein shall mean the Series C Preferred Conversion Price as so adjusted.

(d) Mechanics of Conversion. Each holder of Series A Preferred, Series B Preferred or Series C Preferred who desires to convert the same into shares of Common Stock pursuant to this Section 4 shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Company or any transfer agent for the Series A Preferred, Series B Preferred or Series C Preferred, respectively, and shall give written notice to the Company at such office that such holder elects to convert the same. Such notice shall state the number of shares of Series A Preferred, Series B Preferred or Series C Preferred being converted. Thereupon, the Company shall promptly issue and deliver at such office to such holder a certificate or certificates for the number of shares of Common Stock to which such holder is entitled and shall promptly pay (i) at the election of the holder, in cash or shares of Common Stock (at the Common Stock's fair market value determined by the Board of Directors as of the date of such conversion), any declared and unpaid dividends on the shares of Series A Preferred, Series B Preferred or Series C Preferred being converted and (ii) in cash (at the Common Stock's fair market value determined by the Board of Directors as of the date of conversion) the value of any fractional share of Common Stock otherwise issuable to any holder of Series A Preferred, Series B Preferred or Series C Preferred. Such conversion shall be deemed to have been made at the close of business on the date of such surrender of the certificates representing the shares of Series A Preferred, Series B Preferred or Series C Preferred to be converted, and the person entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock on such date.

(e) Adjustments to Series B Conversion Price or Series C Conversion Price for Certain Diluting Issues.

(i) Special Definitions. For purposes of this Section 4(e), the following definitions apply:

(A) "**Options**" shall mean rights, options, or warrants to subscribe for, purchase or otherwise acquire Common Stock, Series A Preferred, Series B Preferred, Series C Preferred or Convertible Securities (defined below).

(B) "**Original Issue Date**" shall mean the date on which a share of Series C Preferred was first issued.

(C) "**Convertible Securities**" shall mean any evidences of indebtedness, shares (other than Common Stock, Series A Preferred, Series B Preferred and Series C Preferred) or other securities convertible into or exchangeable for Common Stock.

(D) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Section 4(e)(iii), deemed to be issued) by the Corporation after the Original Issue Date, other than:

(1) shares of Common Stock issued or issuable upon conversion of shares of Series A Preferred, Series B Preferred or Series C Preferred;

(2) up to 2,000,000 shares of Common Stock issued or issuable to officers, directors or employees of, or consultants to, the Corporation pursuant to stock option or stock purchase plans or agreements on terms approved by the Board of Directors;

(3) shares of Common Stock issued or issuable as a dividend or distribution on Series A Preferred, Series B Preferred or Series C Preferred;

(4) shares of Common Stock issued or issuable upon exercise or conversion of outstanding warrants;

(5) shares of Common Stock issued or issuable for which adjustment of the Series A Preferred Conversion Price, Series B Conversion Price or Series C Conversion Price is made pursuant to Section 4(g);

(6) shares of Common Stock issued or issuable in connection with an acquisition of another entity by the Corporation (by merger, consolidation, sale of assets, sale or exchange of securities or otherwise); or

(7) shares of Common Stock issued or issuable, in each case as approved by the Board of Directors, in connection with a lease line, bank financing, strategic partnership, collaboration or similar transaction, or in consideration of the acquisition or licensing of technology by the Corporation.

(E) "**Ratchet Period**" shall mean the period, if any, beginning on January 1, 2006 and ending on the date on which the aggregate proceeds to the Company from sales of its equity securities after the Original Issue Date exceeds $50 Million.

(ii) No Adjustment of Conversion Price. Any provision herein to the contrary notwithstanding, no adjustment in the Series B Conversion Price or Series C Conversion Price, respectively, shall be made in respect of the issuance of Additional Shares of Common Stock unless the consideration per share (determined pursuant to Section 4(e)(v) hereof) for an Additional Share of Common Stock issued or deemed to be issued by the Corporation is less than the Series B Conversion Price or Series C Conversion Price, respectively, in effect on the date of, and immediately prior to, such issue.

(iii) Deemed Issue of Additional Shares of Common Stock. In the event the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities then entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto

without regard to any provisions contained therein designed to protect against dilution) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options for Convertible Securities or for Series A Preferred, Series B Preferred or Series C Preferred, the conversion or exchange of such Convertible Securities or Series A Preferred, Series B Preferred or Series C Preferred, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that in any such case in which Additional Shares of Common Stock are deemed to be issued:

(A) no further adjustments in the Series B Conversion Price or Series C Conversion Price shall be made upon the subsequent issue of such Convertible Securities, or Series A Preferred, Series B Preferred, Series C Preferred or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities or Series A Preferred, Series B Preferred or Series C Preferred;

(B) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or decrease or increase in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the Series B Conversion Price or Series C Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities (provided, however, that no such adjustment of the Series B Conversion Price or Series C Conversion Price shall affect Common Stock previously issued upon conversion of the Series A Preferred, Series B Preferred or Series C Preferred);

(C) upon the expiration of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the Series B Conversion Price or Series C Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon such expiration, be recomputed as if:

(1) in the case of Convertible Securities or Options for Common Stock, the only Additional Shares of Common Stock issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities and the consideration received therefor was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration actually received by the Corporation upon such exercise, or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually receive by the Corporation upon such conversion or exchange and

(2) in the case of Options for Convertible Securities or Series A Preferred, Series B Preferred or Series C Preferred, only the Convertible Securities or Series A Preferred, Series B Preferred or Series C Preferred, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration

received by the Corporation for the Additional Shares of Common Stock deemed to have been then issued was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration deemed to have been received by the Corporation (determined pursuant to Section 4(e)(v)) upon the issue of the Convertible Securities or Series A Preferred, Series B Preferred or Series C Preferred with respect to which such Options were actually exercised;

(D) no readjustment pursuant to clause (B) or (C) above shall have the effect of increasing the Series B Conversion Price to an amount which exceeds the lower of (a) the Series B Conversion Price on the original adjustment date, or (b) the Series B Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date. No readjustment pursuant to clause (B) or (C) above shall have the effect of increasing the Series C Conversion Price to an amount which exceeds the lower of (x) the Series C Conversion Price on the original adjustment date, or (y) the Series C Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date;

(E) in the case of any Options which expire by their terms not more than 30 days after the date of issue thereof, no adjustment of the Series B Conversion Price or Series C Conversion Price shall be made until the expiration or exercise of all such Options, whereupon such adjustment shall be made in the same manner provided in clause (C) above.

(iv) Adjustment of Series B Conversion Price or Series C Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event this Corporation, at any time after the Original Issue Date, shall issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 4(e)(iii)) without consideration or for a consideration per share less than the Series B Conversion Price or Series C Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, the Series B Conversion Price or Series C Conversion Price, as applicable, shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) (A) in the case of an adjustment to the Series B Conversion Price, determined by multiplying the Series B Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at the Series B Conversion Price in effect immediately prior to such issuance, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common Stock so issued, (B) in the case of an adjustment to the Series C Conversion Price other than during the Ratchet Period, determined by multiplying the Series C Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at the Series C Conversion Price in effect immediately prior to such issuance, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus

the number of such Additional Shares of Common Stock so issued, and (C) in the case of an adjustment to the Series C Conversion Price during the Ratchet Period, equal to the lowest price at which such Additional Shares of Common Stock were so issued. For the purpose of the above calculation, the number of shares of Common Stock outstanding immediately prior to such issue shall be calculated on a fully diluted basis, as if all shares of Series A Preferred, Series B Preferred, Series C Preferred and all Convertible Securities had been fully converted into shares of Common Stock immediately prior to such issuance and any outstanding warrants, options or other rights for the purchase of shares of stock or convertible securities had been fully exercised immediately prior to such issuance (and the resulting securities fully converted into shares of Common Stock, if so convertible) as of such date. Notwithstanding anything to the contrary herein, the application of this Section 4(e)(iv) with respect to a particular issuance of Additional Shares of Common Stock may be waived (in writing or by vote at a meeting) by the holders of at least a majority of the then outstanding shares of Series B Preferred and Series C Preferred, voting together as a single class on an as-converted basis.

(v) Determination of Consideration. For purposes of Section 4(e), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(A) Cash and Property. Such consideration shall

(1) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation excluding amounts paid or payable for accrued interest or accrued dividends;

(2) insofar as it consists of property other than cash, be computed at the fair value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(3) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (1) and (2) above, as determined in good faith by the Board of Directors.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 4(e)(iii), relating to Options and Convertible Securities shall be determined by dividing:

(1) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein designed to protect against dilution) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities or Series A Preferred, Series B Preferred or Series C Preferred, the exercise of such Options for Convertible Securities or Series A Preferred, Series B Preferred or Series C Preferred

and the conversion or exchange of such Convertible Securities or Series A Preferred, Series B Preferred or Series C Preferred; by

(2) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein designed to protect against the dilution) issuable upon the exercise of such Options or conversion or exchange of such Convertible Securities.

(f) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the Original Issue Date effect a subdivision of the outstanding Common Stock without a corresponding subdivision of the Preferred Stock, the Series A Preferred Conversion Price, Series B Preferred Conversion Price and Series C Preferred Conversion Price in effect immediately before that subdivision shall be proportionately decreased. Conversely, if the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock into a smaller number of shares without a corresponding combination of the Preferred Stock, the Series A Preferred Conversion Price, Series B Preferred Conversion Price and Series C Preferred Conversion Price in effect immediately before the combination shall be proportionately increased. Any adjustment under this Section 4(f) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(g) Adjustment for Common Stock Dividends and Distributions. If the Company at any time or from time to time after the Original Issue Date makes, or fixes a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, in each such event the Series A Preferred Conversion Price, Series B Preferred Conversion Price and Series C Preferred Conversion Price that is then in effect shall be decreased as of the time of such issuance or, in the event such record date is fixed, as of the close of business on such record date, by multiplying the applicable Conversion Price then in effect by a fraction (i) the numerator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and (ii) the denominator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, that if such record date is fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Series A Preferred Conversion Price, Series B Conversion Price and Series C Preferred Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series A Preferred Conversion Price, Series B Preferred Conversion Price and Series C Preferred Conversion Price shall be adjusted pursuant to this Section 4(g) to reflect the actual payment of such dividend or distribution.

(h) Adjustment for Reclassification, Exchange and Substitution. If at any time or from time to time after the Original Issue Date, the Common Stock issuable upon the conversion of the Series A Preferred, Series B Preferred or Series C Preferred is changed into the same or a different number of shares of any class or classes of stock, whether by recapitalization, reclassification or otherwise (other than an Acquisition or Asset Transfer or a subdivision or combination of shares or stock dividend or a reorganization, merger, consolidation

or sale of assets provided for elsewhere in this Section 4), in any such event each holder of Series A Preferred, Series B Preferred or Series C Preferred, respectively, shall have the right thereafter to convert such stock into the kind and amount of stock and other securities and property receivable upon such recapitalization, reclassification or other change by holders of the maximum number of shares of Common Stock into which such shares of Series A Preferred, Series B Preferred or Series C Preferred, respectively, could have been converted immediately prior to such recapitalization, reclassification or change, all subject to further adjustment as provided herein or with respect to such other securities or property by the terms thereof.

(i) Reorganizations, Mergers or Consolidations. If at any time or from time to time after the Original Issue Date, there is a capital reorganization of the Common Stock or the merger or consolidation of the Company with or into another corporation or another entity or person (other than an Acquisition or Asset Transfer or a recapitalization, subdivision, combination, reclassification, exchange or substitution of shares provided for elsewhere in this Section 4), as a part of such capital reorganization, provision shall be made so that the holders of the Series A Preferred, Series B Preferred and Series C Preferred shall thereafter be entitled to receive upon conversion of the Series A Preferred, Series B Preferred and Series C Preferred, respectively, the number of shares of stock or other securities or property of the Company to which a holder of the number of shares of Common Stock deliverable upon conversion would have been entitled on such capital reorganization, subject to adjustment in respect of such stock or securities by the terms thereof. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 4 with respect to the rights of the holders of Series A Preferred, Series B Preferred and Series C Preferred after the capital reorganization to the end that the provisions of this Section 4 (including adjustment of the applicable Conversion Price then in effect and the number of shares issuable upon conversion of the Series A Preferred, Series B Preferred and Series C Preferred) shall be applicable after that event and be as nearly equivalent as practicable.

(j) Automatic Conversion.

(i) Each share of Series A Preferred, Series B Preferred and Series C Preferred shall automatically be converted into shares of Common Stock, based on the then-effective Series A Preferred Conversion Price, Series B Preferred Conversion Price and Series C Preferred Conversion Price, respectively, immediately upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (or a substantially equivalent registration under Japanese law), covering the offer and sale of Common Stock for the account of the Company and resulting in at least $40,000,000 of gross proceeds to the Company, and pursuant to which the Company obtains a listing for its shares on the New York Stock Exchange or the Nasdaq National Market System (or comparable Japanese exchange or automated quotation system). Furthermore, (x) each share of Series A Preferred shall automatically be converted into shares of Common Stock, based on the then-effective Series A Preferred Conversion Price at any time upon the affirmative election of the holders of at least a majority of the outstanding shares of the Series A Preferred, (y) each share of Series B Preferred shall automatically be converted into shares of Common Stock, based on the then-effective Series B Preferred Conversion Price at any time upon the affirmative election of the holders of at least a majority of the outstanding shares of the Series B Preferred and (z) each share of Series C Preferred shall automatically be converted into shares of Common

Stock, based on the then effective Series C Conversion Price at any time upon the affirmative election of the holders of at least a majority of the outstanding shares of the Series C Preferred so long as all shares of Series A Preferred and Series B Preferred have already been converted to Common Stock or are being converted automatically to Common Stock pursuant to an affirmative vote of the requisite holders thereof as set forth in clauses (x) and (y) above simultaneously with the conversion of the outstanding shares of Series C Preferred hereunder.

(ii) Upon the occurrence of any of the events specified in Section 4(j)(i) above, the outstanding shares of Series A Preferred, Series B Preferred or Series C Preferred, as the case may be, shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Company or its transfer agent; *provided, however*, that the Company shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such conversion unless the certificates evidencing such shares of Series A Preferred, Series B Preferred or Series C Preferred are either delivered to the Company or its transfer agent as provided below, or the holder notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Company to indemnify the Company from any loss incurred by it in connection with such certificates (without requirement of posting any bond). Upon the occurrence of such automatic conversion of the Series A Preferred, Series B Preferred or Series C Preferred, the holders of Series A Preferred, Series B Preferred or Series C Preferred, as the case may be, shall surrender the certificates representing such shares at the office of the Company or any transfer agent for such stock. Thereupon, there shall be issued and delivered to such holder promptly at such office and in its name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Common Stock into which the shares of Series A Preferred, Series B Preferred or Series C Preferred surrendered were convertible on the date on which such automatic conversion occurred, and any declared and unpaid dividends shall be paid in accordance with the provisions of Section 4(d).

(k) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of Series A Preferred, Series B Preferred or Series C Preferred. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series A Preferred, Series B Preferred or Series C Preferred by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of any fractional share, the Company shall, in lieu of issuing any fractional share, pay cash equal to the product of such fraction multiplied by the Common Stock's fair market value (as determined by the Board of Directors) on the date of conversion.

(l) Reservation of Stock Issuable Upon Conversion. The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series A Preferred, Series B Preferred and Series C Preferred, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series A Preferred, Series B Preferred and Series C Preferred. If at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series A Preferred, Series B Preferred and Series C Preferred, the

Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

(m) Payment of Taxes. The Company will pay all taxes (other than taxes based upon income) and other governmental charges that may be imposed with respect to the issue or delivery of shares of Common Stock upon conversion of shares of Series A Preferred, Series B Preferred and Series C Preferred, excluding any tax or other charge imposed in connection with any transfer involved in the issue and delivery of shares of Common Stock in a name other than that in which the shares of Series A Preferred, Series B Preferred or Series C Preferred so converted were registered.

5. REDEMPTION RIGHTS

(a) Redemption Right. Subject to the terms and conditions set forth below, the Corporation shall, upon receipt after August ____, 2010 of written request from the holders of a majority of the outstanding Series C Preferred (a "**Redemption Request**"), redeem from each "**Requesting Holder**" (as defined below), at a price per share equal to the Original Series C Issue Price (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares) plus all declared and unpaid dividends on such stock (the "**Redemption Price**"), the number of shares of Series C Preferred requested to be redeemed by each Requesting Holder.

(b) Terms of Redemption. The Corporation shall provide notice of its receipt of a Redemption Request, specifying the time, manner and place of the initial redemption and the Redemption Price (a "**Redemption Notice**"), by first class or registered mail, postage prepaid, to each holder of record of Series C Preferred at the address for such holder last shown on the records of the transfer agent therefor (or the records of the Corporation, if it serves as its own transfer agent). The initial redemption date (the "**Initial Redemption Date**") set forth in the Redemption Notice shall be not less than 60 days nor more than 90 days after receipt of the Redemption Request. Each holder of Series C Preferred Stock may elect to participate in such redemption by so indicating in a written irrevocable notice mailed to the Corporation, by first class or registered mail, postage prepaid, at least 20 days prior to the Initial Redemption Date. Each holder who delivers such a notice, and each holder who was part of the original Redemption Request, is referred to as a "Requesting Holder" in this Section 5. Any redemption required by this Section 5 shall take place in three equal installments, with one third of the shares to be redeemed from each Requesting Holder redeemed on each of the Initial Redemption Date, the first anniversary of the Initial Redemption Date and the second anniversary of the Initial Redemption Date (each such date, a "**Redemption Date**").

(c) Redemption Procedure. Except as provided in Section 5(d) below, each Requesting Holder shall surrender to the Corporation on the applicable Redemption Date the certificate(s) representing the shares to be redeemed on such date, in the manner and at the place designated in the Redemption Notice. Thereupon, the Redemption Price shall be paid to the order of each such Requesting Holder and each certificate surrendered for redemption shall be cancelled. If the certificate evidencing the shares to be redeemed also evidences shares not being redeemed, then the Corporation will also deliver to the holder of the certificate a new stock

certificate evidencing the shares not redeemed. If a holder notifies the Corporation or its transfer agent in writing that the holder's certificate has been lost, stolen or destroyed, and executes an agreement in a form satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificate (without requirement of posting any bond), then such actions shall be treated for purposes of this Section 5 as delivery of such lost, stolen or destroyed certificate.

(d) Legal Prohibition. If the funds of the Corporation legally available for redemption of Series C Preferred on any Redemption Date are insufficient to redeem the number of shares of Series C Preferred required under this Section 5 to be redeemed on such date from Requesting Holders, those funds which are legally available will be used to redeem the maximum possible number of such shares of Series C Preferred ratably among the holders of such shares in proportion to the redemption amounts otherwise payable to them. At any time thereafter when additional funds of the Corporation become legally available for the redemption of Series C Preferred, such funds will be used, at the end of the next succeeding month, to redeem the balance of the shares which the Corporation was theretofore obligated to redeem, ratably on the basis set forth in the preceding sentence.

(e) Effect of Redemption. Unless there shall have been a default in payment of the Redemption Price, on the applicable Redemption Date all rights of the holder of each share redeemed on such date as a stockholder of the Corporation by reason of the ownership of such share will cease, except the right to receive the Redemption Price of such share, without interest, upon presentation and surrender of the certificate representing such share, and such share will not from and after such Redemption Date be deemed to be outstanding. Any Series C Preferred redeemed hereunder will be cancelled and will not under any circumstances be reissued, sold or transferred and the Corporation may from time to time take such appropriate action as may be necessary to reduce the authorized Series C Preferred accordingly.

6. COMMON STOCK

The voting, dividend, liquidation and all other rights of the holders of the Common Stock are subject to and qualified by the rights of the holders of Preferred Stock.

V.

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent under the Delaware General Corporation Law (the "**DGCL**").

B. This Corporation is authorized to provide indemnification of each person who was or is made a party or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "**Proceeding**"), by reason of the fact that he or she is or was a director, officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan, whether the basis of such Proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, to the fullest extent authorized by the DGCL, as

the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than permitted prior thereto).

VI.

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed by the Board of Directors in the manner provided in the Bylaws, subject to any restrictions which may be set forth in this Restated Certificate.

B. Subject to the indemnification provisions in the Bylaws, the Board of Directors may from time to time make, amend, supplement or repeal the Bylaws; provided, however, that the stockholders may change or repeal any Bylaw adopted by the Board of Directors by the affirmative vote of the percentage of holders of capital stock as provided therein; and, provided further, that no amendment or supplement to the Bylaws adopted by the Board of Directors shall vary or conflict with any amendment or supplement thus adopted by the stockholders.

C. The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

* * * *

FOUR: Pursuant to Sections 242 and 245 of the DGCL, this Restated Certificate of Incorporation has been duly approved by the Board of Directors of this Corporation.

FIVE: Pursuant to Sections 228, 242 and 245 of the DGCL, this Restated Certificate of Incorporation has been duly approved by the stockholders of the Corporation. The total number of outstanding shares of Common Stock entitled to vote is 500,000, the total number of outstanding shares of Series A Preferred entitled to vote is 1,000,000, and the total number of outstanding shares of Series B Preferred entitled to vote is 291,150. A majority of the outstanding shares of each the Common Stock and Preferred Stock (with the Preferred Stock voting together as a separate class on an as-converted to Common Stock basis) approved this Restated Certificate of Incorporation by written consent in accordance with Section 228 of the DGCL and written notice of such was given by the Corporation in accordance with said Section 228.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, MEDICINOVA, INC. has caused this Restated Certificate of Incorporation to be signed by its President this 30th day of August, 2004.

MEDICINOVA, INC.

By: /s/ TAKASHI KIYOIZUMI

Takashi Kiyoizumi,
President

EXHIBIT 3.2

FORM OF

RESTATED CERTIFICATE OF INCORPORATION

OF

MEDICINOVA, INC.

MediciNova, Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

A. The Corporation was incorporated pursuant to an original Certificate of Incorporation of the Corporation filed with the Secretary of State of the State of Delaware on September 26, 2000. The Certificate of Incorporation of the Corporation was restated and filed with the Secretary of State of Delaware on December 7, 2000, amended and filed with the Secretary of State of Delaware on August 1, 2001, further restated and filed with the Secretary of State of Delaware on March 5, 2003, further restated and filed with the Secretary of State of Delaware on June 11, 2003 and further restated and filed with the Secretary of State of Delaware on September 2, 2004.

B. This Restated Certificate of Incorporation (i) has been duly adopted in accordance with the provisions of Sections 242 and 245 of the General Corporation Law of the State of Delaware by the board of directors and stockholders of the Corporation and (ii) restates, integrates and further amends the provisions of the Certificate of Incorporation of the Corporation.

C. The Certificate of Incorporation of the Corporation shall be amended and restated to read in full as follows:

ARTICLE I

The name of the Corporation is MediciNova, Inc.

ARTICLE II

The registered agent and the address of the registered office in the State of Delaware are: The Corporation Trust Company, 1209 Orange Street, Wilmington, County of New Castle, 19801.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware (the "DGCL").

ARTICLE IV

A. Authorized Stock. The Corporation is authorized to issue two classes of stock to be designated respectively Preferred Stock ("Preferred Stock") and Common Stock ("Common Stock"). The total number of all shares of all classes of capital stock the Corporation shall have authority to issue is two hundred five million (205,000,000). The total number of shares of Preferred Stock the Corporation shall have authority to issue is five million (5,000,000). The total number of shares of Common Stock the Corporation shall have authority to issue is two

hundred million (200,000,000). The Preferred Stock shall have a par value of $0.01 per share and the Common Stock shall have a par value of $0.001 per share. The number of authorized shares of Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the then outstanding shares of Common Stock, without a vote of the holders of Preferred Stock, or of any series thereof, unless a vote of any such holders of Preferred Stock is required pursuant to the provisions established by the Board of Directors of the Corporation (the "Board of Directors") in the resolution or resolutions providing for the issue of such Preferred Stock, and if such holders of such Preferred Stock are so entitled to vote thereon, then, except as may otherwise be set forth in this Restated Certificate of Incorporation, the only stockholder approval required shall be the affirmative vote of a majority of the combined voting power of the Common Stock and the Preferred Stock so entitled to vote.

B. Preferred Stock. The shares of Preferred Stock may be issued from time to time in one or more series, as determined by the Board of Directors. The Board of Directors is expressly authorized to provide for the issue, in one or more series, of all or any of the remaining shares of the Preferred Stock and, in the resolution or resolutions providing for such issue, to establish for each such series the number of its shares, the voting powers, full or limited, of the shares of such series, or that such shares shall have no voting powers, and the designations, preferences, and relative participating, optional, or other special rights of the shares of such series and the qualifications, limitations, or restrictions thereof. The Board of Directors is also expressly authorized (unless forbidden in the resolution or resolutions providing for such issue) to increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of any series subsequent to the issue of shares of that series. In case the number of shares of any such series shall be so decreased, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

C. Common Stock.

1. Relative Rights of Preferred Stock and Common Stock. All preferences, voting powers, relative, participating, optional or other special rights and privileges, and all qualifications, limitations, or restrictions, of the Common Stock are expressly made subject and subordinate to those that may be fixed with respect to any shares of the Preferred Stock.

2. Voting Rights. Except as otherwise required by law or this Restated Certificate of Incorporation, each holder of Common Stock shall have one vote in respect of each share of stock held by such holder of record on the books of the Corporation for the election of directors and on all matters submitted to a vote of stockholders of the Corporation.

3. Dividends. Subject to the preferential rights of the Preferred Stock, the holders of shares of Common Stock shall be entitled to receive, when and if declared by the Board of Directors, out of the assets of the Corporation which are by law available therefor, dividends payable either in cash, in property or in shares of capital stock.

4. Dissolution, Liquidation or Winding Up. In the event of any dissolution, liquidation or winding up of the affairs of the Corporation, after distribution in full of the

preferential amounts, if any, to be distributed to the holders of shares of the Preferred Stock, holders of Common Stock shall be entitled, unless otherwise provided by law or this Restated Certificate of Incorporation, to receive all of the remaining assets of the Corporation of whatever kind available for distribution to stockholders ratably in proportion to the number of shares of Common Stock held by them respectively.

ARTICLE V

The Corporation is to have perpetual existence.

ARTICLE VI

A. Number of Directors. The authorized number of directors of the Corporation shall be determined from time to time by resolution adopted by the affirmative vote of a majority of the entire Board of Directors at any regular or special meeting of such Board of Directors, within any limits prescribed in the bylaws of the Corporation.

B. Classes of Directors. The Board of Directors, other than those directors elected by the holders of any series of Preferred Stock as provided for or fixed pursuant to the provisions of Article IV of this Restated Certificate of Incorporation, shall be divided into three classes, designated Class I, Class II and Class III, as nearly equal in number as possible, and the term of office of directors of one class shall expire at each annual meeting of stockholders, and in all cases as to each director such term shall extend until his or her successor shall be elected and shall qualify or until his or her earlier resignation, removal from office, death or incapacity. Additional directorships resulting from an increase in number of directors shall be apportioned among the classes as equally as possible. The initial term of office of directors of Class I shall expire at the annual meeting of stockholders in 2005, the initial term of office of directors of Class II shall expire at the annual meeting of stockholders in 2006 and the initial term of office of directors of Class III shall expire at the annual meeting of stockholders in 2007. At each annual meeting of stockholders a number of directors equal to the number of directors of the class whose term expires at the time of such meeting (or, if less, the number of directors properly nominated and qualified for election) shall be elected to hold office until the third succeeding annual meeting of stockholders after their election.

At each annual election, directors chosen to succeed those whose terms then expire shall be of the same class as the directors they succeed, unless by reason of any intervening changes in the authorized number of directors, the Board of Directors shall designate one or more directorships whose term then expires as directorships of another class in order to more nearly achieve equality of number of directors among the classes.

Notwithstanding the rule that the three classes shall be as nearly equal in number of directors as possible, in the event of any change in the authorized number of directors, each director then continuing to serve as such shall nevertheless continue as a director of the class of which such director is a member until the expiration of his or her current term, or his or her prior death, resignation or removal. If any newly created directorship may, consistently with the rule that the three classes shall be as nearly equal in number of directors as possible, be allocated to

either class, the Board of Directors shall allocate it to that of the available class whose term of office is due to expire at the earliest date following such allocation.

C. Vacancies. Except as otherwise provided for or fixed pursuant to the provisions of Article IV of this Restated Certificate of Incorporation relating to the rights of the holders of any series of Preferred Stock to elect directors, and subject to the provisions hereof, newly created directorships resulting from any increase in the authorized number of directors or any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or another cause may be filled only by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of directors in which the new directorship was created or in which the vacancy occurred, and until such director's successor shall have been duly elected and qualified or until his or her earlier resignation, removal from office, death or incapacity. Subject to the provisions of this Restated Certificate of Incorporation, no decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

D. Elections. Elections of directors need not be by written ballot unless the bylaws of the Corporation shall so provide.

ARTICLE VII

A. Power of Stockholders to Act by Written Consent. No action required or permitted to be taken at any annual or special meeting of the stockholders may be taken without a meeting, and the power of stockholders to consent in writing, without a meeting, to the taking of any action is specifically denied.

B. Special Meetings of Stockholders. Special meetings of the stockholders of the Corporation may be called only by the Chairman of the Board or the Chief Executive Officer of the Corporation or by a resolution adopted by the affirmative vote of a majority of the Board of Directors.

ARTICLE VIII

A. Limitation on Liability. To the fullest extent permitted by the DGCL, as the same exists or as may hereafter be amended, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director.

B. Indemnification. Each person who is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, employee benefit plan or other enterprise (including the heirs, executors, administrators or estate of such person), shall be indemnified and advanced expenses by the Corporation, in accordance with the bylaws of the Corporation, to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment) or any other applicable laws as presently or

hereinafter in effect. The right to indemnification and advancement of expenses hereunder shall not be exclusive of any other right that any person may have or hereafter acquire under any statute, provision of the Restated Certificate of Incorporation, bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

C. Insurance. The Corporation may, to the fullest extent permitted by law, purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise against any expense, liability or loss incurred by such person in any such capacity or arising out of such person's status as such, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL.

D. Repeal and Modification. Any repeal or modification of the foregoing provisions of this Article VIII shall not adversely affect any right or protection existing hereunder immediately prior to such repeal or modification.

ARTICLE IX

The Board of Directors is expressly empowered to adopt, amend or repeal the bylaws of the Corporation; *provided*, *however*, that any adoption, amendment or repeal of the bylaws of the Corporation by the Board of Directors shall require the approval of at least sixty-six and two-thirds percent (66-2/3%) of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any resolution providing for adoption, amendment or repeal is presented to the Board of Directors). The stockholders shall also have the power to adopt, amend or repeal the bylaws of the Corporation; *provided*, *however*, that in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required for such adoption, amendment or repeal by the stockholders of any provisions of the bylaws of the Corporation.

ARTICLE X

Notwithstanding any other provision of this Restated Certificate of Incorporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend in any respect or repeal any provision of this Article X, or any provision of Articles VI, VII, VIII or IX.

IN WITNESS WHEREOF, the Corporation has caused this certificate to be signed by its duly authorized officer this __ day of _____, 2005.

MEDICINOVA, INC.

By: _____

Takashi Kiyoizumi
Chief Executive Officer

EXHIBIT 3.3

BYLAWS

OF

MEDICINOVA, INC.

(A Delaware Corporation)

Adopted Effective September 26, 2000

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BYLAWS OF

MEDICINOVA, INC.

(A Delaware Corporation)

ARTICLE 1

OFFICES

1.1 Registered Office. The registered office of the Corporation shall be at 1209 Orange Street, Wilmington, Delaware 19801.

1.2 Other Offices. The Corporation may additionally have offices at such other places, both within and without the State of Delaware, as the board of directors from time to time may determine or the business of the Corporation may require.

ARTICLE 2

MEETINGS OF STOCKHOLDERS

2.1 Annual Meeting. An annual meeting of the stockholders shall be held for the purpose of electing directors and conducting such other business as may come before the meeting. The date, time and place, within or without the State of Delaware, of the annual meeting shall be determined by resolution of the board of directors.

2.2 Special Meetings. Special meetings of the stockholders for any other purpose may be held at such time and place, within or without the State of Delaware, as shall be stated in the notice of the meeting or in a duly executed waiver of notice thereof. Special meetings may be called by the president and shall be called by the president or secretary at the request in writing of a majority of the board of directors, or at the request in writing of stockholders owning a majority in amount of the entire capital stock of the Corporation issued and outstanding and entitled to vote. Such request shall state the purpose or purposes of the proposed special meeting. Business transacted at any special meeting of stockholders shall be limited to the purpose or purposes stated in the notice.

2.3 Notices. Written or printed notice of every annual or special meeting of the stockholders, stating the place, date and hour and, in the case of special meetings, the purpose or purposes for which the meeting is called shall be given to each stockholder entitled to vote at such meeting not less than ten (10) nor more than sixty (60) days before the date of the meeting. All such notices shall be delivered, either personally or by mail, by or at the direction of the board of directors, the president or the secretary, and if mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address as it appears on the records of the Corporation.

2.4 Stockholder Lists. The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list also shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

2.5 Quorum and Adjournments. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders except as otherwise provided by statute or by the certificate of incorporation. If a quorum is not present, the holders of the shares present in person or represented by proxy at the meeting, and entitled to vote thereat, shall have the power, by affirmative vote of the holders of a majority of such shares, to adjourn the meeting to another time and/or place. When a meeting is adjourned to another time or place notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. At the adjourned meeting the Corporation may transact any business which might have been transacted at the original meeting.

2.6 Majority. When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which, by express provision of an applicable statute or of the certificate of incorporation, a different vote is required, in which case such express provision shall govern and control the decision of such question.

2.7 Voting. Each stockholder shall, at every meeting of the stockholders, be entitled to one vote in person or by proxy for each share of the capital stock having voting power held by such stockholder, except that no proxy shall be voted on after three years from its date, unless such proxy provides for a longer period. A duly executed proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A proxy may be made irrevocable regardless of whether the interest with which it is coupled is an interest in the stock itself or an interest in the Corporation generally.

2.8 Consent of Absentees. The transactions of any meeting of stockholders, however called and noticed, shall be valid as though had at a meeting duly held after regular call and notice, if a quorum was present either in person or by proxy, and if, either before or after the meeting, each of the stockholders entitled to vote, not present in person or by proxy, signs a written waiver of notice or a consent to the holding of such meeting, or an approval of minutes

thereof. All such waivers, consents or approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

2.9 Action Taken Without a Meeting. Unless otherwise restricted by the certificate of incorporation, any action required or permitted to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing. Every written consent shall bear the date of signature of each stockholder or member who signs the consent and no written consent shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered to the Corporation in the manner required by the General Corporation Law of Delaware, written consents signed by sufficient number of holders or members to take this action are delivered to the Corporation by delivery to its registered office in the State of Delaware, its principal place of business, or an officer or an agent of the Corporation having custody of the book in which proceedings of meetings of stockholders or members are recorded. Delivery made to the Corporation's registered office shall be by hand or by certified or registered mail, return receipt requested.

2.10 Inspectors of Election. The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his ability. The inspector shall: (1) ascertain the number of shares outstanding and the voting power of each; (2) determine the shares represented at a meeting and the validity of the proxies of ballots; (3) count all votes and ballots; (4) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors; and (5) certify their determination of the number of shares represented at the meeting, and their count of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of the duties of the inspectors.

ARTICLE 3

DIRECTORS

3.1 Powers. The business and affairs of the Corporation shall be managed by or under the direction of the board of directors, which may exercise all such powers of the Corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation or by these bylaws directed or required to be exercised or to be done by the stockholders.

3.2 Number, Election and Term of Office. Unless otherwise specified by any requirements or provisions set forth in the certificate of incorporation, the number of the directors of the Corporation shall be fixed from time to time by resolution of the board of directors. The directors shall be elected at the annual meeting of the stockholders, except as provided in Paragraph 3.3 of this Article, and each director elected shall hold office until his successor is duly elected and qualified; provided, however, that if the directors shall be divided into classes, each director elected shall hold office until the next election of the class for which such director has been elected, and until his successor has been duly elected and qualified.

3.3 Vacancies. Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director. Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected. The directors so chosen shall hold office until the next annual election and until their successors are duly elected and shall qualify, unless sooner displaced. If there are no directors in office, then an election of directors may be held in the manner provided by statute. If, at the time of filling any vacancy or any newly created directorship, the directors then in office shall constitute less than a majority of the whole Board (as constituted immediately prior to any such increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten percent (10%) of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid.

3.4 Annual Meetings. The annual meeting of each newly elected board of directors shall be held at such time and place as is specified by the stockholders at the meeting at which the directors were elected. If no such time and place is specified by the stockholders, the president shall specify such time and place and give at least twenty-four (24) hours' notice thereof to each newly elected director, either personally, by telephone, by mail or by telegraph.

3.5 Regular Meetings. Regular meetings, other than the annual meeting, of the board of directors shall be held not less than quarterly at such times and such places within or without the State of Delaware as shall from time to time be determined by the board of directors and publicized among all directors. A notice of each regular meeting shall not be required.

3.6 Special Meetings. Special meetings of the board of directors may be called by the President, any Vice President or the Secretary, and shall be called by the President upon the express written request of any two directors, on twenty-four (24) hours' prior notice to each director, either personally, by telephone, by mail or by telegraph, at such time and such place within or without the State of Delaware as shall be specified in such notice.

3.7 Quorum and Majority. At all meetings of the board of directors, a majority of the total number of directors shall constitute a quorum for the transaction of business. The vote of the majority of the directors present at a meeting at which a quorum is present shall be the act of

the board of directors. If a quorum shall not be present at any meeting of the board of directors, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

3.8 Telephonic Meeting. Members of the board of directors, or any committee designated by such Board, may participate in a meeting of such Board or committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other. Participation in a meeting pursuant to this Paragraph 3.8 shall constitute presence in person at such meeting.

3.9 Committees. The board of directors may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation, which to the extent provided in the resolution of the board of directors, or in these bylaws, shall have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it, except as limited by Delaware General Corporation Law. Each committee of the board of directors may fix its own rules of procedure and shall hold its meetings as provided by such rules, except as may otherwise be provided by the resolution of the board of directors designating such committee, but in all cases, the presence of at least a majority of the members of such committee shall be necessary to constitute a quorum. In the event that a member of such committee is absent or disqualified, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in place of any such absent or disqualified member. Each committee shall keep regular minutes of its meetings and report the same to the board of directors when required.

3.10 Action Taken Without a Meeting. Any action required or permitted to be taken at any meeting of the board of directors or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board, or committee.

3.11 Compensation of Directors. The board of directors, by resolution adopted by a majority of the whole Board, may establish reasonable compensation of all directors for services to the Corporation as directors, officers or otherwise. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of committees designated by the board of directors may be allowed like compensation for their services to the Corporation.

3.12 Interested Directors. No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers, are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the board or committee which authorizes the contract or transaction, or solely because his or their votes are counted for such purpose, if: (1) The material facts as to his relationship or interest and as to the contract or transaction are disclosed or are known to the board of directors or the

committee, and the board of directors or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or (2) The material facts as to his relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or (3) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the board of directors, a committee, or the stockholders. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the board of directors or of a committee which authorizes the contract or transaction.

ARTICLE 4

OFFICERS

4.1 Officers and Elections. The officers of the Corporation shall be chosen by the board of directors and shall consist of a Chairman of the Board, a Chief Executive Officer, a President, one or more Vice Presidents, a Secretary, a Chief Financial Officer and such other officers and assistant officers as may be deemed necessary or desirable by the board of directors. Any number of offices may be held by the same person. In its discretion, the board of directors may leave unfilled for any period as it may deem necessary or advisable any office except the offices of President, Secretary and Chief Financial Officer.

4.2 Removal. Subject to the rights, if any, of an officer under any contract of employment, any officer elected or appointed by the board of directors may be removed by the board of directors at any time, with or without cause.

4.3 Resignation. Any officer may resign at any time upon written notice of the Corporation. Any resignation shall take effect on the date of the receipt of that notice or at any later time specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the Corporation under any contracts to which the officer is a party.

4.4 Terms of Office and Vacancies. Each officer of the Corporation shall hold his office until his successor is elected and qualified or until his earlier resignation or removal. Any officer elected or appointed by the board of directors may be removed at any time by the affirmative vote of a majority of the board of directors. Any vacancy occurring in any office of the Corporation, by death, resignation, removal or otherwise, shall be filled by the board of directors.

4.5 Salaries. Salaries of all officers shall be fixed by the board of directors.

4.6 Chairman of the Board. The Chairman of the Board shall, when present, preside at all meetings of the stockholders and of the board of directors and, subject to these bylaws, shall exercise such other powers and shall perform such other duties as may from time to time be prescribed by the board of directors.

4.7 Chief Executive Officer. The Chief Executive Officer shall be the chief executive officer of the Corporation, shall have general and active management of the business of the Corporation and shall see that all orders and resolutions of the board of directors are carried into effect. He or she shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the Corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the board of directors to some other officer or agent of the Corporation and shall perform such other duties and have such other powers as the board of directors may from time to time prescribe.

4.8 President. In the absence of the Chief Executive Officer, or in the event of his or her inability or refusal to act, the President shall be the Chief Executive Officer of the Corporation and shall perform the duties as provided in Paragraph 4.7 above. The President shall perform such other duties and have such other powers as the board of directors may from time to time prescribe.

4.9 Vice President. In the absence of the President or in the event of his or her inability or refusal to act, the Vice President, or if there be more than one, the vice presidents in the order determined by the board of directors (or if there be no such determination, then in the order of their election) shall perform the duties of the President, and when so acting, shall have all powers of and be subject to all the restrictions upon the President. The Vice President shall perform such other duties and have such other powers as the board of directors may from time to time prescribe.

4.10 Secretary. The Secretary shall attend all meetings of the board of directors and all meetings of the stockholders and record all the proceedings of the meetings of the Corporation and of the board of directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. He or she shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the board of directors, and shall perform such other duties as may be prescribed by the board of directors or the President, under whose supervision he or she shall be. He or she shall have custody of the corporate seal of the Corporation and he or she, or an assistant secretary, shall have authority to affix the same to any instrument requiring it, and when so affixed, it may be attested by his or her signature or by the signature of such assistant secretary. The board of directors may give general authority to any other officer to affix the seal of the Corporation and to attest the affixing by his signature.

4.11 Assistant Secretary. The Assistant Secretary, or if there be more than one, the assistant secretaries in the order determined by the board of directors (or if there be no such determination, then in the order of their election), shall, in the absence of the Secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as the board of directors may from time to time prescribe.

4.12 Chief Financial Officer. The Chief Financial Officer shall have the custody of the Corporation’s funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit all monies and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the board of directors.

The Chief Financial Officer may disburse the funds of the Corporation as may be ordered by the board of directors, taking proper vouchers for such disbursements, and shall render to the President and the board of directors, at its regular meetings, or when the board of directors so requires, an account of transactions and of the financial condition of the Corporation.

If required by the board of directors, the Chief Financial Officer shall give to the Corporation a bond (which shall be renewed every six years) in such sum and with such surety or sureties as shall be satisfactory to the board of directors for the faithful performance of the duties of his or her office and for the restoration to the Corporation, in case of his or her death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his or her possession or under his or her control belonging to the Corporation.

ARTICLE 5

CERTIFICATES FOR STOCK

5.1 Entitlement. Every holder of stock in the Corporation shall be entitled to have a certificate, signed by, or in the name of the Corporation by the Chairman or Vice Chairman of the board of directors, or the President or a Vice President, and by the Chief Financial Officer or the Secretary or an Assistant Secretary of the Corporation representing the number of shares owned by him or her in the Corporation.

5.2 Facsimile Signatures. Any or all the signatures on the certificate may be facsimile, other than the counter-signature (a) of a transfer agent other than the Corporation or its employee, or (b) of a registrar other than the Corporation or its employee. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

5.3 Lost Certificates. The Corporation may issue a new certificate of stock or uncertificated shares in place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or his legal representative to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

5.4 Transfer of Stock. Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate for shares, duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, the Corporation shall issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

5.5 Fixing a Record Date. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the board of directors may fix a record date, which record date shall not precede the date

upon which the resolution fixing the record date is adopted by the board of directors, and which record date shall not be more than sixty nor less than ten days before the date of such meeting. If no record date is fixed by the board of directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; providing, however, that the board of directors may fix a new record date for the adjourned meeting.

In order that the Corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the board of directors, and which date shall not be more than ten days after the date upon which the resolution fixing the record date is adopted by the board of directors. If no record date has been fixed by the board of directors, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the board of directors is required by the General Corporation Law of the State of Delaware, shall be the first date on which a signed written consent setting forth the action to be taken or proposed to be taken is delivered to the Corporation by delivery to its registered office in Delaware, its principal place of business or an officer or agent of the Corporation having custody of the book in which the proceedings of meetings of stockholders are recorded. Delivery made to the Corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the board of directors and prior action by the board of directors is required by the General Corporation Law of the State of Delaware, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the board of directors adopts the resolution taking such prior action.

In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty days prior to such action. If no record date is fixed, the record date for determining stock holders for any such purpose shall be at the close of business on the day on which the board of directors adopts the resolution relating thereto.

5.6 Registered Stockholders. The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of the shares to receive dividends, and to vote as such owner, and to hold liable for calls and assessments a person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of the State of Delaware.

ARTICLE 6

GENERAL PROVISIONS

6.1 Dividends. Dividends upon the capital stock of the Corporation, subject to the provisions of the certificate of incorporation, if any, may be declared by the board of directors at any regular or special meeting, pursuant to law. Dividends may be paid in cash, in property, or in shares of the capital stock of the Corporation, subject to the provisions of the certificate of incorporation.

6.2 Reserves. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for such other purposes as the directors shall think conducive to the interests of the Corporation, and the directors may modify or abolish any such reserve in the manner in which it was created.

6.3 Checks, Notes, Instruments, Etc. All checks or demands for money, notes, instruments or other documents of the Corporation shall be signed by such officer or officers or such other person or persons as the board of directors may from time to time designate. Unless so designated by the Board, no such officer or officers or such other person or persons shall have any power or authority to render the Corporation liable for any purpose or to any amount.

6.4 Seal. The corporate seal shall be prescribed by the board of directors. The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

6.5 Fiscal Year. The fiscal year of the Corporation shall be determined from time to time by resolution of the board of directors.

6.6 Waiver of Notice. Whenever notice is required to be given under any provision of the laws of the State of Delaware or the certificate of incorporation or bylaws, a written waiver, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting (either in person or by proxy), shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

6.7 Registrars and Transfer Agents. The board of directors may appoint one or more registrars of transfer, which shall be incorporated banks or trust companies, either domestic or foreign, and one or more transfer agents or transfer clerks, who shall be appointed at such times and places as the board of directors shall determine.

6.8 Amendments. These bylaws may be altered, amended or repealed, or new bylaws may be adopted by the stockholders or by the board of directors, when such power is conferred upon the board of directors by the certificate of incorporation, at any regular meeting of the stockholders or of the board of directors, or at any special meeting of the stockholders or of the board of directors, if notice of such alteration, amendment, repeal or adoption of new bylaws be contained in the notice of such special meeting.

CERTIFICATE OF SECRETARY

I, Hisashi Nishimura, do hereby certify:

1. That I am the duly elected and acting Secretary of MediciNova, Inc. a Delaware corporation (the "Corporation"), and;

2. That the foregoing bylaws constitute the bylaws of the Corporation duly adopted by the board of directors thereof as of September 26, 2000.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of the Corporation.

/s/ HISASHI NISHIMURA

Hisashi Nishimura,
Secretary

EXHIBIT 3.4

FORM OF

AMENDED AND RESTATED

BY LAWS

OF

MEDICINOVA, INC.

(a Delaware corporation)

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(continued)

AMENDED AND RESTATED

BY LAWS

OF

MEDICINOVA, INC.
(a Delaware corporation)

ARTICLE 1

Offices

1.1 Registered Office. The registered office of the corporation shall be set forth in the certificate of incorporation of the corporation.

1.2 Other Offices. The corporation may also have offices at such other places, either within or without the State of Delaware, as the Board of Directors (the "Board") may from time to time designate or the business of the corporation may require.

ARTICLE 2

Meeting of Stockholders

2.1 Place of Meeting. Meetings of stockholders may be held at such place, either within or without of the State of Delaware, as may be designated by or in the manner provided in these bylaws, or, if not so designated, at the registered office of the corporation or the principal executive offices of the corporation.

2.2 Annual Meeting. Annual meetings of stockholders shall be held each year at such date and time as shall be designated from time to time by the Board or the Chief Executive Officer and stated in the notice of the meeting. At each such annual meeting, the stockholders shall elect by a plurality vote the number of directors equal to the number of directors of the class whose term expires at such meeting (or, if fewer, the number of directors properly nominated and qualified for election) to hold office until the third succeeding annual meeting of stockholders after their election. The stockholders shall also transact such other business as may properly be brought before the meeting.

To be properly brought before the annual meeting, business must be (a) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board or the Chief Executive Officer, (b) otherwise properly brought before the meeting by or at the direction of the Board or the Chief Executive Officer, or (c) otherwise properly brought before the meeting by a stockholder of record. A motion related to business proposed to be brought before any stockholders' meeting may be made by any stockholder entitled to vote if the business proposed is otherwise proper to be brought before the meeting. However, any such stockholder may propose business to be brought before a meeting only if such stockholder has given timely notice to the Secretary of the corporation in proper written form of the stockholder's intent to propose

such business. To be timely, the stockholder's notice must be delivered by a nationally recognized courier service or mailed by first class United States mail, postage or delivery charges prepaid, and received at the principal executive offices of the corporation addressed to the attention of the Secretary of the corporation not earlier than ninety (90) days nor more than one hundred twenty (120) days in advance of the date the corporation's proxy statement was released to the stockholders in connection with the previous year's annual meeting of stockholders; *provided, however*, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date contemplated at the time of the previous year's proxy statement, notice by the stockholder must be received by the Secretary of the corporation not later than the close of business on the later of (x) the ninetieth (90th) day prior to such annual meeting and (y) the seventh (7th) day following the day on which public announcement of the date of such meeting is first made. For the purposes of these bylaws, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of stockholder's notice as described above. A stockholder's notice to the Secretary shall set forth as to each matter the stockholder proposes to bring before the annual meeting (i) a brief description of the business desired to be brought before the annual meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the Bylaws of the Corporation, the language of the proposed amendment), and the reasons for conducting such business at the annual meeting, (ii) the name and record address of the stockholder proposing such business and the beneficial owner, if any, on whose behalf the proposal is made, (iii) the class, series and number of shares of the corporation that are owned beneficially and of record by the stockholder and such beneficial owner, (iv) any material interest of the stockholder in such business, and (v) any other information that is required to be provided by the stockholder pursuant to Section 14 of the Securities Exchange Act of 1934 and the rules and regulations promulgated thereunder (collectively, the "1934 Act") in such stockholder's capacity as a proponent of a stockholder proposal.

Notwithstanding anything in these bylaws to the contrary, no business shall be conducted at the annual meeting except in accordance with the procedures set forth in this Section 2.2; *provided, however*, that nothing in this Section 2.2 shall be deemed to preclude discussion by any stockholder of any business properly brought before the annual meeting.

The Chairman of the Board (or such other person presiding at the meeting in accordance with these bylaws) shall, if the facts warrant, determine and declare to the meeting that business was not properly brought before the meeting in accordance with the provisions of this Section, and if he or she should so determine, he or she shall so declare to the meeting and any such business not properly brought before the meeting shall not be transacted.

2.3 Special Meetings. Special meetings of the stockholders may be called for any purpose or purposes, unless otherwise prescribed by statute or by the certificate of incorporation, by the Secretary only at the request of the Chairman of the Board, the Chief Executive Officer or by a resolution duly adopted by the affirmative vote of a majority of the Board. Such request

shall state the purpose or purposes of the proposed meeting. Business transacted at any special meeting shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.

2.4 Notice of Meetings. Except as otherwise provided by law, written notice of each meeting of stockholders, annual or special, stating the place, if any, date and time of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which such special meeting is called, shall be given to each stockholder entitled to vote at such meeting not less than ten (10) nor more than sixty (60) days before the date of the meeting.

When a meeting is adjourned to another place, date or time, notice need not be given of the adjourned meeting if the place, date and time thereof are announced at the meeting at which the adjournment is taken; *provided, however*, that if the date of any adjourned meeting is more than thirty (30) days after the date for which the meeting was originally noticed, or if a new record date is fixed for the adjourned meeting, written notice of the place, if any, date, time and means of remote communications, if any, of the adjourned meeting shall be given in conformity herewith. At any adjourned meeting, any business may be transacted that might have been transacted at the original meeting.

2.5 List of Stockholders. The officer in charge of the stock ledger of the corporation or the transfer agent shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least ten days prior to the meeting, (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the principal place of business of the corporation. If the meeting is to be held at a place, then the list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to gain access to such list shall be provided with the notice of the meeting.

2.6 Organization and Conduct of Business. The Chairman of the Board or, in his or her absence, the Chief Executive Officer or President of the corporation or, in their absence, such person as the Board may have designated or, in the absence of such a person, such person as may be chosen by the holders of a majority of the shares entitled to vote who are present, in person or by proxy, shall call to order any meeting of the stockholders and act as chairman of the meeting. In the absence of the Secretary of the corporation, the secretary of the meeting shall be such person as the chairman of the meeting appoints.

The chairman of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of discussion as seems to him or her in order.

2.7 Quorum. Except where otherwise provided by law or the certificate of incorporation of the corporation or these bylaws, the holders of a majority of the stock issued and outstanding and entitled to vote, present in person or represented in proxy, shall constitute a quorum at all meetings of the stockholders.

2.8 Adjournments. Any meeting of stockholders may be adjourned from time to time to any other time and to any other place at which a meeting of stockholders may be held under these bylaws, which time and place shall be announced at the meeting, by a majority of the stockholders present in person or represented by proxy at the meeting and entitled to vote, though less than a quorum, or, if no stockholder is present or represented by proxy, by any officer entitled to preside at or to act as secretary of such meeting, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted which might have been transacted at the original meeting. If the adjournment is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.9 Voting Rights. Unless otherwise provided in the certificate of incorporation of the corporation, each stockholder shall at every meeting of the stockholders be entitled to one vote for each share of the capital stock having voting power held by such stockholder.

2.10 Majority Vote. When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the certificate of incorporation of the corporation or of these bylaws, a different vote is required in which case such express provision shall govern and control the decision of such question.

2.11 Record Date for Stockholder Notice and Voting. For purposes of determining the stockholders entitled to notice of, or to vote at, any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any right in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix, in advance, a record date, which shall not be more than sixty (60) days nor fewer than ten (10) days before the date of any such meeting nor more than sixty (60) days before any other action to which the record date relates. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided*, *however*, that the Board may fix a new record date for the adjourned meeting. If the Board does not so fix a record date, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the business day next preceding the day on which notice is given or, if notice is waived, at the close of business on the business day next preceding the day on which the meeting is held. The record date for determining stockholders

for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating to such purpose.

2.12 Proxies. Each stockholder entitled to vote at a meeting of stockholders, or to express consent or dissent to corporate action in writing without a meeting, may authorize another person or persons to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. All proxies must be filed with the Secretary of the corporation at the beginnning of each meeting in order to be counted in any vote at the meeting. Subject to the limitation set forth in the last clause of the first sentence of this Section 2.12, a duly executed proxy that does not state that it is irrevocable shall continue in full force and effect unless (i) revoked by the person executing it, before the vote pursuant to that proxy, by a writing delivered to the corporation stating that the proxy is revoked or by a subsequent proxy executed by, or attendance at the meeting and voting in person by, the person executing the proxy, or (ii) written notice of the death or incapacity of the maker of that proxy is received by the corporation before the vote pursuant to that proxy is counted.

2.13 Inspectors of Election. The corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors of election to act at the meeting and make a written report thereof. The corporation may designate one or more persons to act as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability.

2.14 Action Without a Meeting. No action required or permitted to be taken at any annual or special meeting of the stockholders of the corporation may be taken without a meeting and the power of the stockholders to consent in writing, without a meeting, to the taking of any action is specifically denied.

ARTICLE 3

Directors

3.1 Number, Election, Tenure and Qualifications. The number of directors that shall constitute the entire Board initially shall be five (5); *provided, however*, that the number of directors that shall constitute the entire Board shall be fixed from time to time by resolution adopted by a majority of the entire Board. The classes of directors that shall constitute the entire Board shall be as provided in the certificate of incorporation of the corporation.

The directors shall be elected at the annual meetings of the stockholders, except as otherwise provided in Section 3.2, and each director elected shall hold office until such director’s successor is elected and qualified, unless sooner displaced.

Subject to the rights of holders of any class or series of preferred stock, nominations of persons for election to the Board by or at the direction of the Board may be made by any

nominating committee or person appointed by the Board; nominations may also be made by any stockholder of record of the corporation entitled to vote for the election of directors at the applicable meeting who complies with the notice procedures set forth in this Section. Such nominations, other than those made by or at the direction of the Board, shall be made pursuant to timely notice in writing to the Secretary of the corporation. To be timely, a stockholder's notice shall be delivered by a nationally recognized courier service or mailed by first class United States mail, postage or delivery charges prepaid, and received at the principal executive offices of the corporation addressed to the attention of the Secretary of the corporation not earlier than ninety (90) days nor more than one hundred twenty (120) days in advance of the date the corporation's proxy statement was released to the stockholders in connection with the previous year's annual meeting of stockholders; *provided, however*, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date contemplated at the time of the previous year's proxy statement, notice by the stockholder must be received by the Secretary of the corporation not later than the close of business on the later of (x) the ninetieth (90th) day prior to such annual meeting and (y) the seventh (7th) day following the day on which public announcement of the date of such meeting is first made. Such stockholder's notice to the Secretary shall set forth (a) as to each person whom the stockholder proposes to nominate for election or reelection as a director, (i) the name, age, business address and residence address of the person, (ii) the principal occupation or employment of the person, (iii) the class, series and number of shares of capital stock of the corporation that are owned beneficially by the person, (iv) a statement as to the person's citizenship, and (v) any other information relating to the person that is required to be disclosed in solicitations for proxies for election of directors pursuant to Section 14 of the 1934 Act, and (b) as to the stockholder giving the notice, (i) the name and record address of the stockholder and (ii) the class, series and number of shares of capital stock of the corporation that are owned beneficially by the stockholder. The corporation may require any proposed nominee to furnish such other information as may reasonably be required by the corporation to determine the eligibility of such proposed nominee to serve as director of the corporation. No person shall be eligible for election as a director of the corporation unless nominated in accordance with the procedures set forth herein.

In connection with any annual meeting of the stockholders (or, if and as applicable, any special meeting of the stockholders), the Chairman of the Board (or such other person presiding at such meeting in accordance with these bylaws) shall, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the foregoing procedure, and if he or she should so determine, he or she shall so declare to the meeting and the defective nomination shall be disregarded.

3.2 Enlargement and Vacancies. The number of members of the Board may be increased at any time as provided in Section 3.1 above. Sole power to fill vacancies and newly created directorships resulting from any increase in the authorized number of directors shall be vested in the Board as provided in the certificate of incorporation of the corporation, and each director so chosen shall hold office until the next annual election at which the term of the class to which they have been elected expires and until such director's successor is duly elected and qualified or until such director's earlier resignation, removal from office, death or incapacity. If there are no directors in office, then an election of directors may be held in the manner provided by statute. In the event of a vacancy in the Board, the remaining directors, except as otherwise

provided by law or these bylaws, may exercise the powers of the full board until the vacancy is filled.

3.3 Resignation and Removal. Any director may resign at any time upon written notice to the corporation at its principal place of business or to the Chief Executive Officer or the Secretary. Such resignation shall be effective upon receipt of such notice unless the notice specifies such resignation to be effective at some other time or upon the happening of some other event. Any director or the entire Board may be removed, but only for cause, by the holders of a majority of the shares then entitled to vote at an election of directors, unless otherwise specified by law or the certificate of incorporation of the corporation.

3.4 Composition. The corporation shall use commercially reasonable efforts to ensure that a majority of the members of the Board qualify as "independent directors" (each an "**Independent Director**") under the then current rules and regulations of the United States Securities and Exchange Commission and the primary stock exchange, stock market or quotation system on which the corporation's stock is then listed or quoted, as applicable.

3.5 Powers. The business of the corporation shall be managed by or under the direction of the Board, which may exercise all such powers of the corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation of the corporation or by these bylaws directed or required to be exercised or done by the stockholders.

3.6 Chairman of the Board. If the Board appoints a Chairman of the Board, such Chairman shall, when present, preside at all meetings of the stockholders and the Board. The Chairman shall perform such duties and possess such powers as are customarily vested in the office of the Chairman of the Board or as may be vested in the Chairman by the Board.

3.7 Place of Meetings. The Board may hold meetings, both regular and special, either within or without the State of Delaware.

3.8 Annual Meetings. The annual meetings of the Board shall be held immediately following the annual meeting of stockholders, and no notice of such meeting shall be necessary to the Board, provided a quorum shall be present. The annual meetings shall be for the purposes of organization, and an election of officers and the transaction of other business.

3.9 Regular Meetings. Regular meetings of the Board may be held without notice at such time and place as may be determined from time to time by the Board; provided that any director who is absent when such a determination is made shall be given prompt notice of such determination.

3.10 Special Meetings. Special meetings of the Board may be called by the Chairman of the Board, the Chief Executive Officer, the President or the Secretary, or on the written request of two or more directors, or by one director in the event that there is only one director in office. Notice of the time and place, if any, of special meetings shall be delivered personally or by telephone to each director, or sent by first-class mail or commercial delivery service, facsimile transmission, or by electronic mail or other electronic means, charges prepaid, sent to such director's business or home address as they appear upon the records of the corporation. In case such notice is mailed, it shall be deposited in the United States mail at least four (4) days

prior to the time of holding of the meeting. In case such notice is delivered personally or by telephone or by commercial delivery service, facsimile transmission, or electronic mail or other electronic means, it shall be so delivered at least twenty-four (24) hours prior to the time of the holding of the meeting. A notice or waiver of notice of a meeting of the Board need not specify the purposes of the meeting.

3.11 Quorum, Action at Meeting, Adjournments. At all meetings of the Board, a majority of directors then in office, but in no event less than one-third (1/3) of the entire Board, shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board, except as may be otherwise specifically provided by law or by the certificate of incorporation of the corporation. For purposes of this Section 3.11, the term "entire Board" shall mean the number of directors last fixed by directors in accordance with these bylaws; *provided, however*, that if fewer than all the number of directors so fixed have been elected (by the stockholders or the Board), the "entire Board" shall mean the greatest number of directors so elected to hold office at any one time pursuant to such authorization. If a quorum shall not be present at any meeting of the board of directors, a majority of the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

3.12 Action Without Meeting. Unless otherwise restricted by the certificate of incorporation of the corporation or these bylaws, any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting, if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee.

3.13 Telephone Meetings. Unless otherwise restricted by the certificate of incorporation of the corporation or these bylaws, any member of the Board or any committee thereof may participate in a meeting of the Board or of any committee, as the case may be, by means of conference telephone or by any form of communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

3.14 Committees. The Board may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not the member or members present constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval or (ii) adopting, amending or repealing any of these

bylaws. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board. Each committee shall keep regular minutes of its meetings and make such reports to the Board as the Board may request. Except as the Board may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these bylaws for the conduct of its business by the Board.

3.15 Fees and Compensation of Directors. Unless otherwise restricted by the certificate of incorporation of the corporation or these bylaws, the Board shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board and may be paid a fixed sum for attendance at each meeting of the Board or a stated salary as director. No such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

3.16 Rights of Inspection. Any director shall have the right to examine the corporation's stock ledger, a list of its stockholders and its other books and records for a purpose reasonably related to his or her position as a director.

ARTICLE 4

Officers

4.1 Officers Designated. The officers of the corporation shall be chosen by the Board and shall be a Chief Executive Officer, a President, a Secretary and a Chief Financial Officer or Treasurer. The Board may also choose a Chief Operating Officer, one or more Vice Presidents, and one or more assistant Secretaries or assistant Treasurers. Any number of offices may be held by the same person, unless the certificate of incorporation of the corporation or these bylaws otherwise provide.

4.2 Election. The Board at its first meeting after each annual meeting of stockholders shall choose a Chief Executive Officer, a President, a Secretary and a Chief Financial Officer or Treasurer. Other officers may be appointed by the Board of Directors at such meeting, at any other meeting, or by written consent or may be appointed by the Chief Executive Officer pursuant to a delegation of authority from the Board.

4.3 Tenure. Each officer of the corporation shall hold office until such officer's successor is elected and qualified, unless a different term is specified in the vote choosing or appointing such officer, or until such officer's earlier death, resignation, removal or incapacity. Any officer elected or appointed by the Board or by the Chief Executive Officer may be removed with or without cause at any time by the affirmative vote of a majority of the Board or a committee duly authorized to do so, except that any officer appointed by the Chief Executive Officer may also be removed at any time by the Chief Executive Officer. Any vacancy occurring in any office of the corporation may be filled by the Board, at its discretion. Any officer may resign by delivering such officer's written resignation to the corporation at its

principal place of business or to the Chief Executive Officer or the Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event.

4.4 The Chief Executive Officer. Subject to such supervisory powers, if any, as may be given by the Board to the Chairman of the Board, the Chief Executive Officer shall preside at all meetings of the stockholders and in the absence of the Chairman of the Board, or if there be none, at all meetings of the Board, shall have general and active management of the business of the corporation and shall see that all orders and resolutions of the Board are carried into effect. He or she shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board to some other officer or agent of the corporation.

4.5 The President. The President shall, in the event there be no Chief Executive Officer or in the absence of the Chief Executive Officer or in the event of his or her disability or refusal to act, perform the duties of the Chief Executive Officer, and when so acting, shall have the powers of and be subject to all the restrictions upon the Chief Executive Officer. The President shall perform such other duties and have such other powers as may from time to time be prescribed for such person by the Board, the Chairman of the Board, the Chief Executive Officer or these bylaws.

4.6 The Vice President. The Vice President (or in the event there be more than one, the Vice Presidents in the order designated by the directors, or in the absence of any designation, in the order of their election), shall, in the absence of the President or in the event of his or her disability or refusal to act, perform the duties of the President, and when so acting, shall have the powers of and be subject to all the restrictions upon the President. The Vice President(s) shall perform such other duties and have such other powers as may from time to time be prescribed for them by the Board, the President, the Chairman of the Board or these bylaws.

4.7 The Secretary. The Secretary shall attend all meetings of the Board and the stockholders and record all votes and the proceedings of the meetings in a book to be kept for that purpose and shall perform like duties for the standing committees, when required. The Secretary shall give, or cause to be given, notice of all meetings of stockholders and special meetings of the Board, and shall perform such other duties as may from time to time be prescribed by the Board, the Chairman of the Board or the Chief Executive Officer, under whose supervision he or she shall act. The Secretary shall have custody of the seal of the corporation, and the Secretary, or an Assistant Secretary, shall have authority to affix the same to any instrument requiring it, and, when so affixed, the seal may be attested by his or her signature or by the signature of such Assistant Secretary. The Board may give general authority to any other officer to affix the seal of the corporation and to attest the affixing thereof by his or her signature. The Secretary shall keep, or cause to be kept, at the principal executive office or at the office of the corporation’s transfer agent or registrar, as determined by resolution of the Board, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates issued for the same and the number and date of cancellation of every certificate surrendered for cancellation.

4.8 The Assistant Secretary. The Assistant Secretary, or if there be more than one, any Assistant Secretaries in the order designated by the Board (or in the absence of any designation, in the order of their election) shall assist the Secretary in the performance of his or her duties and, in the absence of the Secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as may from time to time be prescribed by the Board.

4.9 The Chief Financial Officer. The Chief Financial Officer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the Board. The Chief Financial Officer shall disburse the funds of the corporation as may be ordered by the Board, taking proper vouchers for such disbursements, and shall render to the Chief Executive Officer and the Board, at its regular meetings, or when the Board so requires, an account of all his or her transactions as Chief Financial Officer and of the financial condition of the corporation.

4.10 The Treasurer and Assistant Treasurers. The Treasurer (if one is appointed) shall have such duties as may be specified by the Chief Financial Officer to assist the Chief Financial Officer in the performance of his or her duties and to perform such other duties and have other powers as may from time to time be prescribed by the Board or the Chief Executive Officer. It shall be the duty of any Assistant Treasurers to assist the Treasurer in the performance of his or her duties and to perform such other duties and have other powers as may from time to time be prescribed by the Board or the Chief Executive Officer.

4.11 Bond. If required by the Board, any officer shall give the corporation a bond in such sum and with such surety or sureties and upon such terms and conditions as shall be satisfactory to the Board, including without limitation a bond for the faithful performance of the duties of such officer's office and for the restoration to the corporation of all books, papers, vouchers, money and other property of whatever kind in such officer's possession or under such officer's control and belonging to the corporation.

4.12 Delegation of Authority. The Board may from time to time delegate the powers or duties of any officer to any other officers or agents, notwithstanding any provision hereof.

ARTICLE 5

Notices

5.1 Delivery. Whenever, under the provisions of law, or of the certificate of incorporation of the corporation or these bylaws, written notice is required to be given to any director or stockholder, such notice may be given by mail, addressed to such director or stockholder, at such person's address as it appears on the records of the corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail or delivered to a nationally recognized courier service. Unless written notice by mail is required by law, written notice may also be given by commercial delivery service, facsimile transmission, electronic means or similar means addressed to such

director or stockholder at such person's address as it appears on the records of the corporation, in which case such notice shall be deemed to be given when delivered into the control of the persons charged with effecting such transmission, the transmission charge to be paid by the corporation or the person sending such notice and not by the addressee. Oral notice or other in-hand delivery, in person or by telephone, shall be deemed given at the time it is actually given.

5.2 Waiver of Notice. Whenever any notice is required to be given under the provisions of law or of the certificate of incorporation of the corporation or of these bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto. In addition to the foregoing, notice of a meeting need not be given to any director who signs a waiver of notice or a consent, or electronically transmits the same, to holding the meeting or an approval of the minutes thereof, whether before or after the meeting, or who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to such director. All such waivers, consents and approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

ARTICLE 6

Indemnification and Insurance

6.1 Indemnification.

(a) Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit, or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she or a person of whom he or she is the legal representative is or was a director or officer of the corporation (or any predecessor) or is or was serving at the request of the corporation (or any predecessor) as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, employee benefit plan sponsored or maintained by the corporation, or other enterprise (or any predecessor of any of such entities), whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the corporation to the fullest extent authorized by the General Corporation Law of the State of Delaware, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the corporation to provide broader indemnification rights than said law permitted the corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties, and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith; *provided*, *however*, that except as provided in Section 6.1(c), the corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the Board. The right to indemnification conferred in this Section 6.1 shall be a contract right.

(b) To obtain indemnification under this Section 6.1, a claimant shall submit to the corporation a written request, including therein or therewith such documentation and information

as is reasonably available to the claimant and is reasonably necessary to determine whether and to what extent the claimant is entitled to indemnification. Upon written request by a claimant for indemnification pursuant to the preceding sentence, a determination, if required by applicable law, with respect to the claimant's entitlement thereto shall be made as follows: (i) if requested by the claimant, by Independent Counsel (as hereinafter defined), or (ii) if no request is made by the claimant for a determination by Independent Counsel, (A) by the Board by a majority vote of the Disinterested Directors (as hereinafter defined), even though less than a quorum, or (B) by a committee of Disinterested Directors designated by majority vote of the Disinterested Directors, even though less than a quorum, or (C) if there are no Disinterested Directors or the Disinterested Directors so direct, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to the claimant, or (D) if a quorum of Disinterested Directors so directs, by the stockholders of the corporation. In the event the determination of entitlement to indemnification is to be made by Independent Counsel at the request of the claimant, the Independent Counsel shall be selected by the Board unless there shall have occurred within two years prior to the date of the commencement of the proceeding for which indemnification is claimed a Change of Control (as hereinafter defined), in which case Independent Counsel shall be selected by the claimant unless the claimant shall request that such selection be made by the Board. If it is so determined that the claimant is entitled to indemnification, payment to the claimant shall be made within ten (10) days after such determination.

(c) If a claim for the indemnification under this Section 6.1 is not paid in full by the corporation within thirty (30) days after a written claim pursuant to Section 6.1(b) has been received by the corporation, the claimant may at any time thereafter bring suit against the corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall be entitled to be paid also the expense of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending any proceeding in advance of its final disposition where the required undertaking, if any is required, has been tendered to the corporation) that the claimant has not met the standard of conduct that makes it permissible under the General Corporation Law of the State of Delaware for the corporation to indemnify the claimant for the amount claimed, but the burden of proving such defense shall be on the corporation. Neither the failure of the corporation (including its board of directors, Independent Counsel or stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he or she has met the applicable standard of conduct set forth in the General Corporation Law of the State of Delaware, nor an actual determination by the corporation (including its board of directors, Independent Counsel or stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that the claimant has not met the applicable standard of conduct.

(d) If a determination shall have been made pursuant to this Section 6.1 that the claimant is entitled to indemnification, the corporation shall be bound by such determination in any judicial proceeding commenced pursuant to Section 6.1(c). The corporation shall be precluded from asserting in any judicial proceeding commenced pursuant to the Section 6.1(c) that the procedures and presumptions of this Article 6 are not valid, binding and enforceable and shall stipulate in such proceeding that the corporation is bound by all the provisions of this Article 6.

6.2 Advance Payment. The right to indemnification under this Article 6 shall include the right to be paid by the corporation the expenses incurred in defending any such proceeding in advance of its final disposition, such advances to be paid by the corporation within twenty (20) days after the receipt by the corporation of a statement or statements from the claimant requesting such advance or advances from time to time; *provided, however,* that if the General Corporation Law of the State of Delaware requires, the payment of such expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of a proceeding, shall be made only upon delivery to the corporation of an undertaking by or on behalf of such director or officer to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified under Section 6.1 or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to Section 6.3, no advance shall be made by the corporation to an officer of the corporation (except by reason of the fact that such officer is or was a director of the corporation, in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by the Board by a majority vote of the Disinterested Directors, even though less than a quorum, or (B) by a committee of Disinterested Directors designated by majority vote of the Disinterested Directors, even though less than a quorum, or (C) if there are no Disinterested Directors or the Disinterested Directors so direct, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to the claimant, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

6.3 Non-Exclusivity and Survival of Rights; Amendments. The right to indemnification and the payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in this Article 6 shall not be deemed exclusive of any other right which any person may have or hereafter acquire under any statute, provision of the certificate of incorporation of the corporation, bylaws, agreement, vote of stockholders or Disinterested Directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent of the corporation and shall inure to the benefit of the heirs, executors and administrators of such a person. Any repeal or modification of the provisions of this Article 6 shall not in any way diminish or adversely affect the rights of any director, officer, employee or agent of the corporation hereunder in respect of any occurrence or matter arising prior to any such repeal or modification.

6.4 Insurance. The corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise against any expense, liability or loss asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation

would have the power to indemnify such person against such liability under the provisions of the General Corporation Law of State of Delaware.

6.5 Severability. If any word, clause, provision or provisions of this Article 6 shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, legality and enforceability of the remaining provisions of this Article 6 (including, without limitation, each portion of any section or paragraph of this Article 6 containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (ii) to the fullest extent possible, the provisions of this Article 6 (including, without limitation, each such portion of any section or paragraph of this Article 6 containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

6.6 Definitions. For the purpose of this Article 6:

"Change of Control" shall mean:

(1) the acquisition by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the 1934 Act (a "Person")), directly or indirectly, of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the 1934 Act) of 20% or more of either (i) the then outstanding shares of common stock of the corporation (the "Outstanding Corporation Common Stock") or (ii) the combined voting power of the then outstanding voting securities of the corporation entitled to vote generally in the election of directors (the "Outstanding Corporation Voting Securities"); *provided, however,* that for purposes of this part (1), the following acquisitions shall not constitute a Change of Control: (i) any acquisition directly from the corporation or any acquisition from other stockholders where (A) such acquisition was approved in advance by the Board and (B) such acquisition would not constitute a Change of Control under part (2) or part (4) of this definition, (ii) any acquisition by the corporation, (iii) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the corporation or any corporation controlled by the corporation, or (iv) any acquisition by any corporation pursuant to a transaction that complies with clauses (i), (ii) and (iii) of part (4) of this definition; or

(2) the acquisition by any Person, directly or indirectly, of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the 1934 Act) of 50% or more of either (i) the Outstanding Corporation Common Stock or (ii) the Outstanding Corporation Voting Securities; or

(3) individuals who, as of the date hereof, constitute the Board (the "Incumbent Board") cease for any reason to constitute at least a majority of the Board; *provided, however,* that any individual becoming a director subsequent to the date hereof whose election, or nomination for election by the stockholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board (or such committee thereof that shall then have the authority to nominate persons for election as directors) 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 an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies of consents by or on behalf of a Person other than the Board; or

(4) consummation of a reorganization, merger or consolidation or sale or other disposition of all or substantially all of the assets of the corporation (a "Business Combination"), in each case, unless, immediately following such Business Combination, (i) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the Outstanding Corporation Common Stock and Outstanding Corporation Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation that as a result of such transaction owns the corporation or all or substantially all of the corporation'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 Corporation Common Stock and Outstanding Corporation Voting Securities, as the case may be, (ii) no Person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the corporation or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 20% or more of, respectively, the then outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination, and (iii) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board, providing for such Business Combination; or

(5) approval by the stockholders of a complete liquidation or dissolution of the corporation.

"Disinterested Director" shall mean a director of the corporation who is not and was not a party to the matter in respect of which indemnification is sought by the claimant.

"Independent Counsel" shall mean a law firm, a member of a law firm, or an independent practitioner, that is experienced in matters of corporation law and shall include any person who, under the applicable standards of professional conduct then prevailing, would not have a conflict of interest in representing either the corporation or the claimant in an action to determine the claimant's rights under this Article 6.

6.7 Notices. Any notice, request or other communication required or permitted to be given to the corporation under this Article 6 shall be in writing and either delivered in person or sent by telecopy, telex, telegram, overnight mail or courier service, or certified or registered

mail, postage or charges prepaid, return copy requested, to the Secretary of the corporation and shall be effective only upon receipt by the Secretary.

ARTICLE 7

Capital Stock

7.1 Certificates for Shares. The shares of the corporation shall be represented by certificates or shall be uncertificated. Certificates shall be signed by, or in the name of the corporation by, the Chairman of the Board, the Chief Executive Officer, the President or a Vice President and by the Chief Financial Officer, the Treasurer or an Assistant Treasure, or the Secretary or an Assistant Secretary of the corporation. Certificates may be issued for partly paid shares and in such case upon the face or back of the certificates issued to represent any such partly paid shares, the total amount of the consideration to be paid therefor, and the amount paid thereon shall be specified.

Within a reasonable time after the issuance or transfer of uncertificated stock, the corporation shall send to the registered owner thereof a written notice containing the information required by the General Corporation Law of the State of Delaware or a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

7.2 Signatures on Certificates. Any or all of the signatures on a certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

7.3 Transfer of Stock. Upon surrender to the corporation or the transfer agent of the corporation of a certificate of shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books. Upon receipt of proper transfer instructions from the registered owner of uncertificated share, such uncertificated shares shall be canceled and issuance of new equivalent uncertificated shares or certificated shares shall be made to the person entitled thereto and the transaction shall be recorded upon the books of the corporation.

7.4 Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and to hold liable for calls and assessments a person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

7.5 Lost, Stolen or Destroyed Certificates. The corporation may direct that a new certificate or certificates be issued to replace any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed and on such terms and conditions as the corporation may require. When authorizing the issue of a new certificate or certificates, the corporation may, in its discretion and as a condition precedent to the issuance thereof, require the owner of the lost, stolen or destroyed certificate or certificates, or his or her legal representative, to advertise the same in such manner as it shall require, to indemnify the corporation in such manner as it may require, and/or to give the corporation a bond or other adequate security in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

ARTICLE 8

Certain Transactions

8.1 Transactions with Interested Parties. No contract or transaction between the corporation and one or more of its directors or officers, or between the corporation and any other corporation, partnership, association or other organization in which one or more of its directors or officers are directors or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the board or committee thereof which authorizes the contract or transaction or solely because the vote or votes of such director or officer are counted for such purpose, if:

(a) the material facts as to such director's or officer's relationship or interest and as to the contract or transaction are disclosed or are known to the Board or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or

(b) the material facts as to such director's or officer's relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

(c) the contract or transaction is fair as to the corporation as of the time it is authorized, approved or ratified, by the Board, a committee thereof or the stockholders.

8.2 Quorum. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board or of a committee which authorizes the contract or transaction.

ARTICLE 9

General Provisions

9.1 Dividends. Dividends upon the capital stock of the corporation, subject to any restrictions contained in the General Corporation Law of the State of Delaware or the provisions of the certificate of incorporation of the corporation, if any, may be declared by the Board at any regular or special meeting or by unanimous written consent. Dividends may be paid in cash, in property or in shares of capital stock, subject to the provisions of the certificate of incorporation of the corporation.

9.2 Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the directors shall think conducive to the interest of the corporation, and the directors may modify or abolish any such reserve in the manner in which it was created.

9.3 Checks. All checks or demands for money and notes of the corporation shall be signed by such officer or officers or such other person or persons as the Board may from time to time designate.

9.4 Corporate Seal. The Board of Directors may, by resolution, adopt a corporate seal. The corporate seal shall have inscribed thereon the name of the corporation, the year of its organization and the word “Delaware.” The seal may be used by causing it or a facsimile thereof to be impressed or affixed or otherwise reproduced. The seal may be altered from time to time by the Board.

9.5 Execution of Corporate Contracts and Instruments. The Board, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

9.6 Representation of Shares of Other Corporations. The Chief Executive Officer, the President or any Vice President, the Chief Financial Officer or the Treasurer or any Assistant Treasurer, or the Secretary or any Assistant Secretary of the corporation is authorized to vote, represent and exercise on behalf of the corporation all rights incident to any and all shares of any corporation or corporations standing in the name of the corporation. The authority herein granted to said officers to vote or represent on behalf of the corporation any and all shares held by the corporation in any other corporation or corporations may be exercised either by such officers in person or by any other person authorized so to do by proxy or power of attorney duly executed by said officers.

ARTICLE 10

Amendments

The Board is expressly empowered to adopt, amend or repeal these bylaws; *provided, however*, that any adoption, amendment or repeal of these bylaws by the Board shall require the approval of at least a majority of the Independent Directors then serving on the Board (or, if there are no Independent Directors then serving on the Board, a resolution approved by all of the directors then serving on the Board). The stockholders shall also have power to adopt, amend or repeal these bylaws; *provided, however*, that in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the certificate of incorporation of the corporation, the affirmative vote of the holders of at least a majority of the voting power of all of the then outstanding shares of the stock of the corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required for such adoption, amendment or repeal by the stockholder of any provision of these bylaws.

SECRETARY'S CERTIFICATE OF ADOPTION OF THE AMENDED AND RESTATED BYLAWS OF

MEDICINOVA, INC.

I, the undersigned, do hereby certify:

1. That I am the duly elected and acting Secretary of MediciNova, Inc., a Delaware corporation; and

2. That the foregoing is a full, true and correct copy of the Amended and Restated Bylaws of the corporation as adopted by the directors of said corporation and to become effective as of _____, 2005, the date of the corporation's initial public offering of its common stock.

IN WITNESS WHEREOF, I have hereunto subscribed my name this _____ day of _____, 2005.

_____

_____

Secretary

EXHIBIT 4.1

FORM OF STOCK CERTIFICATE

NUMBER
CS

COMMON STOCK
SHARES

THIS CERTIFICATE IS TRANSFERABLE IN [_____].

SEE REVERSE FOR CERTAIN DESIGNATIONS AND A STATEMENT AS TO THE RIGHTS, PREFERENCES PRIVILEGES AND RESTRICTIONS OF SHARES

MediciNova, Inc.

CUSIP [_____]

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

THIS CERTIFIES THAT

IS THE OWNER OF

FULLY PAID AND NON-ASSESSABLE SHARES OF THE COMMON STOCK, $0.001 PAR VALUE PER SHARE, OF

MediciNova, Inc.

transferable on the books of the Corporation by the holder hereof in person or by duly authorized attorney upon surrender of this Certificate properly endorsed. This Certificate is not valid until countersigned and registered by the Transfer Agent and Registrar.

COUNTERSIGNED AND REGISTERED:

[_____]
TRANSFER AGENT
AND REGISTRAR

BY _____
AUTHORIZED SIGNATURE

WITNESS the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.

Dated:

MediciNova, Inc.
Corporate Seal

_____
SECRETARY

_____
PRESIDENT

A statement of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights, as established, from time to time, by the Certificate of Incorporation of the Corporation and by any certificate of determination, the number of shares constituting each class and series, and the designations thereof, may be obtained by the holder hereof upon request and without charge from the Secretary of the Corporation at the principal office of the Corporation.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	-	as tenants in common
TEN ENT	-	as tenants by the entireties
JT TEN	-	as joint tenants with right of survivorship and not as tenants in common

UNIF GIFT MIN ACT— _____ Custodian _____
(CUST) (Minor)
under Uniform Gifts to Minors Act _____
(State)

UNIF TRF MIN ACT— ____ Custodian (until age___)
(Cust)
____under Uniform Transfers
(Minor)
to Minors Act _____
(State)

Additional abbreviations may also be used though not in the above list.

FOR VALUE RECEIVED, _____ hereby sell, assign and transfer unto

PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF ASSIGNEE

_____

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

_____

_____

_____

_____

_____

_____ Shares

of the common stock represented by the within Certificate, and do hereby irrevocably constitute and appoint _____ Attorney to transfer the said stock on the books of the within named Corporation with full power of substitution in the premises.

Dated _____

_____

NOTICE: THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT OR ANY CHANGE WHATEVER.

Signature(s) Guaranteed

By _____

_____

THE SIGNATURE(S) MUST BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (BANKS, STOCKBROKERS, SAVINGS AND LOAN ASSOCIATIONS AND CREDIT UNIONS WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM), PURSUANT TO S.E.C. RULE 17Ad-15.

EXHIBIT 4.2

MEDICINOVA, INC.
AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT

THIS AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT (this **"Agreement"**) is made and entered into as of September 2, 2004 (the **"Effective Date"**) by and among MEDICINOVA, INC., a Delaware corporation (the **"Company"**), each of the persons named as **"Founders"** on the signature page hereto (the **"Founders"**) and each of the persons and entities named as **"Investors"** on the signature pages and Exhibit A attached hereto (the **"Investors"**), and amends and restates that certain Amended and Restated Registration Rights Agreement, dated March 31, 2003 (the **"Prior Agreement"**), by and among the Company, the Founders and those certain Investors listed thereto (the **"Prior Investors"**). The Company, the Founders, the Prior Investors and the Investors who become a party to this Agreement pursuant to Section 4.11 hereof are the "parties" hereto.

Recitals

WHEREAS, the Prior Investors and Founders hold shares of the Company's Series A Preferred Stock, Series B Preferred Stock and/or Common Stock and possess certain registration rights pursuant to the Prior Agreement;

WHEREAS, the Company, the Founders and the Prior Investors desire to amend the Prior Agreement and to accept the rights created pursuant to this Agreement in lieu of the rights granted to them under the Prior Agreement; and

WHEREAS, certain Investors are parties to that certain Series C Preferred Stock Purchase Agreement, dated as of the Effective Date, between the Company and the persons and entities listed on Schedule A thereto (the **"Series C Agreement"**), and certain of the Company's and Investors' obligations thereunder are conditioned upon the execution and delivery by the Company, the Founders, the Prior Investors and the Investors of this Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, the Company, the Founders and the Prior Investors hereby agree that the Prior Agreement shall be superseded and replaced in its entirety by this Agreement, and the parties hereto further agree as follows:

Agreement

SECTION 1

Certain Definitions

The following terms, for purposes of this Agreement, shall have their respective meanings as set forth below in this Section 1:

1.1 **"Certificate"** shall mean, at any time, the Company's Certificate of Incorporation as filed and effective at such time under the Delaware General Corporation Law, as amended.

1.2 **"Commission"** shall mean the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.

1.3 **"Common Stock"** shall mean the Company's Common Stock, par value $0.0001 per share.

1.4 **"Exchange Act"** shall mean the Securities Exchange Act of 1934, as amended, or any similar successor federal statute, and the rules and regulations thereunder, all as the same shall be in effect from time to time.

1.5 **"Holder"** shall mean any Investor who holds Registrable Securities and any holder of Registrable Securities to whom the registration rights conferred by this Agreement have been transferred in compliance with the provisions of Section 2 and Section 3.10 below.

1.6 **"Initiating Holders"** shall mean any Holder or Holders, other than Founders, who, in the aggregate, hold not less than twenty-five percent (25%) of the outstanding Registrable Securities that are issued or issuable upon conversion of the Series B Shares and Series C Shares.

1.7 **"Investor"** shall mean any person or entity who acquires Shares (or any warrant or other right to acquire Shares) directly from the Company and who is a party to this Agreement, whether as of the date hereof or by virtue of fulfilling the requirements of Section 4.11 hereof.

1.8 **"Preferred Shares"** shall mean shares of any of the Company's Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, if and to the extent such shares are designated under the Certificate at any time, authorized by the board of directors of the Company and issued by the Company.

1.9 **"Registrable Securities"** shall mean (i) Shares which consist of Common Stock, (ii) shares of Common Stock issued or issuable pursuant to the exercise of the Warrants, (iii) shares of Common Stock issued or issuable pursuant to the conversion of the Preferred Shares, if any, and (iv) any shares of Common Stock issued as a dividend or other distribution with respect to or in exchange for or in replacement of the shares referenced in clause (i), (ii) or (iii) above; provided, however, that Registrable Securities shall not include any shares of Common Stock which have (x) previously been registered, (y) been sold to the public either pursuant to a registration statement or Rule 144 or (z) been sold in a private transaction in which the transferor's rights under this Agreement are not assigned.

1.10 The terms **"register," "registered"** and **"registration"** shall refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of the effectiveness of such registration statement by the Commission.

1.11 **"Registration Expenses"** shall mean all expenses incurred in effecting any registration pursuant to this Agreement, including, without limitation, all registration, qualification and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company, blue sky fees and expenses, expenses of any regular or special audits incident

to or required by any such registration and, in the case of a registration pursuant to Section 3.1 hereof, reasonable fees and disbursements of up to $25,000 for a single counsel for the selling Holders. Notwithstanding the foregoing, **"Registration Expenses"** shall not include Selling Expenses and the compensation of regular employees of the Company (which compensation to such employees shall be paid in any event by the Company).

1.12 **"Rule 144"** shall mean Rule 144 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

1.13 **"Rule 145"** shall mean Rule 145 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

1.14 **"Securities Act"** shall mean the Securities Act of 1933, as amended, or any similar successor federal statute, and the rules and regulations thereunder, all as the same shall be in effect from time to time.

1.15 **"Selling Expenses"** shall mean any and all underwriting discounts, selling commissions and stock transfer taxes applicable to the sale of Registrable Securities as well as the fees and disbursements of any counsel for any Holder(s).

1.16 **"Series B Shares"** shall mean shares of the Company's Series B Preferred Stock.

1.17 **"Series C Shares"** shall mean shares of the Company's Series C Preferred Stock.

1.18 **"Shares"** shall mean Preferred Shares, if any are duly designated, authorized and issued, and any shares of the Company's Common Stock.

1.19 **"Warrants"** shall mean the warrants to purchase Common Stock issued by the Company pursuant to that certain Common Stock and Warrant Purchase Agreements, dated as of September 26, 2000, by and between the Company and the Founders.

SECTION 2

Restrictions on Transfer

2.1 Restrictions. Each Holder agrees not to make any disposition of any Shares or any Registrable Securities unless and until the transferee has agreed in writing for the benefit of the Company to be bound by this Section 2, provided and to the extent such Section is then applicable, and:

(a) There is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with such registration statement; or

(b) (i) Such Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a statement of the circumstances

surrounding the proposed disposition, and (ii) if reasonably requested by the Company, such Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, that such disposition will not require registration of such shares under the Securities Act. However, the Company agrees that it will not require opinions of counsel for transactions made pursuant to Rule 144 except in unusual circumstances.

Notwithstanding the provisions of paragraphs (a) and (b) above, no such registration statement or opinion of counsel shall be necessary for a transfer by a Holder to the Holder's family member or trust for the benefit of an individual Holder or such Holder's family members, provided the transferee will be subject to the terms of this Section 2 to the same extent as if such transferee were an original Holder hereunder.

2.2 Legends. Each certificate representing Registrable Securities shall (unless otherwise permitted by the provisions of this Agreement) be stamped or otherwise imprinted with a legend substantially similar to the following (in addition to any legend required under applicable state securities laws or any other agreement entered into by the original Investor holding such certificate and the Company):

THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD OR TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SUCH ACT OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL OR OTHER EVIDENCE, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED.

2.3 Reissuance. The Company shall be obligated to reissue promptly unlegended certificates at the request of any Holder thereof if the Holder shall have obtained an opinion of counsel, at such Holder's expense (which counsel may be counsel to the Company) and reasonably acceptable to the Company, to the effect that the securities proposed to be disposed of may lawfully be so disposed of without registration, qualification or other compliance with any legend.

2.4 Removal. Any legend endorsed on an instrument pursuant to applicable state securities laws and the stop-transfer instructions with respect to such securities shall be removed upon receipt by the Company of an order of the appropriate blue sky authority authorizing such removal.

SECTION 3

Registration Rights

3.1 Requested Registration.

(a) Request for Registration. If the Company shall receive from Initiating Holders, at any time or times not earlier than the earlier of (i) December 31, 2005 or (ii) six (6) months after the first date that the Company's securities trade on a national

securities exchange or list on a national automatic quotation system, in either case, located in the United States, a written request that the Company effect any registration with respect to at least ten percent (10%) of such Initiating Holders' Registrable Securities and where the anticipated aggregate offering price, net of underwriting discounts and commissions, would exceed Five Million Dollars ($5,000,000), then the Company will:

(i) promptly give written notice of the proposed registration to all other Holders; and

(ii) as soon as practicable, use its best efforts to effect such registration (including, without limitation, filing post-effective amendments, appropriate qualifications under applicable blue sky or other state securities laws and appropriate compliance with the Securities Act) as would permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request received by the Company within twenty (20) days after the written notice from the Company referenced in clause (i) above is mailed or delivered.

The Company shall not be obligated to effect, or to take any action to effect, any such registration pursuant to this Section 3.1:

(A) In any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, qualification or compliance, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(B) After the Company has initiated two (2) such registrations pursuant to this Section 3.1(a) (counting for these purposes registrations which have been (1) declared or ordered effective and pursuant to which securities have been sold or (2) withdrawn by the Holders and as to which the Holders have not elected to bear the Registration Expenses pursuant to Section 3.3 hereof);

(C) During the period starting with the date ninety (90) days prior to the Company's good faith estimate of the date of filing of, and ending on a date one hundred eighty (180) days after the effective date of, a Company-initiated registration; provided that the Company delivers notice of the Company's intent to effect such registration to the Holders within thirty (30) days of the Company's receipt of a request for registration and the Company is actively employing in good faith all reasonable efforts to cause such registration statement to become effective; or

(D) If the Initiating Holders propose to dispose of shares of Registrable Securities which may be immediately registered on Form S-3 pursuant to a request made under Section 3.4 hereof.

(b) Deferment. Subject to the foregoing clauses (A) through (D), the Company shall file a registration statement covering the Registrable Securities so

requested to be registered as soon as practicable after receipt of the request or requests of the Initiating Holders; provided, however, that if (i) in the good faith judgment of the Board of Directors of the Company, such registration would be seriously detrimental to the Company, and the Board of Directors of the Company concludes, as a result, that it is essential to defer the filing of such registration statement at such time, and (ii) the Company shall furnish to the Initiating Holders a certificate signed by the President of the Company stating that, in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company for such registration statement to be filed in the near future and that it is, therefore, essential to defer the filing of such registration statement, then the Company shall have the right to defer such filing for the period during which such filing would be seriously detrimental, provided that the Company may not defer the filing for a period of more than ninety (90) days after receipt of the request of the Initiating Holders; and, provided, further, that the Company shall not defer its obligations in this manner more than once in any twelve (12) month period.

The registration statement filed pursuant to the request of the Initiating Holders may, subject to the provisions of Sections 3.1(d) and 3.12 below, include other securities of the Company with respect to which registration rights have been granted in accordance with this Agreement and any other agreements entered into between the Company and the Investors, and may include securities of the Company being sold for the account of the Company.

(c) Underwriting. The right of any Holder to participate in an underwritten registration pursuant to Section 3.1 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Initiating Holders and such Holder with respect to such participation and inclusion) to the extent provided herein. A Holder may elect to include in such underwriting all or a part of the Registrable Securities such Holder holds (subject to the other provisions of this Agreement).

(d) Procedures. If the Company shall request inclusion in any registration pursuant to Section 3.1 of securities being sold for its own account, or if other persons shall request inclusion of securities held by them in any registration pursuant to Section 3.1, the Initiating Holders shall, on behalf of all Holders, offer to include such securities in the underwriting and may condition such offer on their acceptance of the further applicable provisions of this Section 3 (including Section 3.11 below). The Company shall (together with all Holders and other persons proposing to distribute their securities through such underwriting) enter into an underwriting agreement in customary form with the representative of the underwriter or underwriters selected for such underwriting by a majority in interest of the Initiating Holders (subject to the approval of the Company, which approval shall not be unreasonably withheld or delayed). Notwithstanding any other provision of this Section 3.1, if the representative of the underwriters advises the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, the number of shares to be included in the underwriting or registration shall be allocated as set forth in Section 3.12 below. If a person who has requested inclusion in such registration as provided above does not agree to the terms of any such underwriting, such person shall be excluded therefrom by written notice from

the Company, the underwriter(s) or the Initiating Holders. Any Registrable Securities or other securities excluded or withdrawn from such underwriting shall also be withdrawn from such registration. If shares are so withdrawn from the registration and if the number of shares to be included in such registration was previously reduced as a result of marketing factors pursuant to this Section 3.1(d), then the Company shall offer to all holders who have retained rights to include securities in the registration the right to include additional securities in the registration in an aggregate amount equal to the number of shares so withdrawn, with such shares to be allocated among such Holders requesting additional inclusion in accordance with the provisions of Section 3.12 below.

3.2 Company Registration.

(a) If, at any time when the Company's securities trade on a national securities exchange or list on a national automatic quotation system (in either case, located in the United States), the Company shall determine to register any of its securities either for its own account or the account of a security holder or holders exercising their respective demand registration rights, other than a registration relating solely to employee benefit plans, or a registration relating to a corporate reorganization or other transaction under Rule 145, or a registration on any registration form that does not permit secondary sales (an **"Excluded Registration"**), the Company will:

(i) promptly give to each Holder written notice thereof; and

(ii) use its best efforts to include in such registration (and any related qualification under blue sky laws or other compliance), except as set forth in Section 3.2(b) below, and in any underwriting involved therein, all the Registrable Securities specified in a written request or requests made by any Holder and received by the Company within ten (10) days after the written notice from the Company described in clause (i) above is mailed or delivered by the Company. Such written request may specify all or a part of a Holder's Registrable Securities.

(b) Underwriting. If the registration of which the Company gives notice is for a registered public offering involving an underwriting, the Company shall so advise the Holders as a part of the written notice given pursuant to Section 3.2(a)(i). In such event, the right of any Holder to registration pursuant to this Section 3.2 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company and the other holders of securities of the Company with registration rights to participate therein distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the representative of the underwriter(s) selected by the Company.

Notwithstanding any other provision of this Section 3.2, if the representative of the underwriters advises the Company in writing that marketing factors require a limitation on the number of shares to be underwritten, the representative may (subject to the limitations set forth below) exclude all Registrable Securities from, or limit the number of Registrable Securities to

be included in, the registration and underwriting. If the registration is the first firmly underwritten public offering made by the Company pursuant to an effective registration statement on form S-1 under the Securities Act (an **"Initial Public Offering"**), the Company may limit, to the extent so advised by the underwriters, the amount of securities (including Registrable Securities) to be included in the registration by the Company's shareholders (including the Holders), or may exclude, to the extent so advised by the underwriters, such underwritten securities entirely from such registration. If such registration is not a Initial Public Offering or is the second or any subsequent Company-initiated registered offering of the Company's securities to the general public, the Company may limit, to the extent so advised by the underwriters, the amount of securities to be included in the registration by the Company's shareholders (including the Holders); provided, however, that the aggregate value of securities (including Registrable Securities) to be included in such registration by the Company's shareholders (including the Holders) may not be so reduced to less than twenty-five percent (25%) of the total value of all securities included in such registration without the consent of more than fifty percent (50%) of the Holders. The Company shall so advise all holders of securities requesting registration, and the number of shares of securities that are entitled to be included in the registration and underwriting shall be allocated first to the Company for securities being sold for its own account (subject to the foregoing provisions of this paragraph) and thereafter as set forth in Section 3.12. If any person does not agree to the terms of any such underwriting, such person shall be excluded therefrom by written notice from the Company or the underwriter.

Any Registrable Securities or other securities excluded or withdrawn from such underwriting shall be withdrawn from such registration. If shares are so withdrawn from the registration or if the number of shares of Registrable Securities to be included in such registration was previously reduced as a result of marketing factors, the Company shall then offer to all persons who have retained the right to include securities in the registration the right to include additional securities in the registration in an aggregate amount equal to the number of shares so withdrawn, with such shares to be allocated among the persons requesting additional inclusion in accordance with the provisions of Section 3.12 below.

(c) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 3.2 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration. The Registration Expenses of such withdrawn registration shall be borne by the Company.

3.3 Expenses of Registration. All Registration Expenses incurred in connection with (i) the first two registrations pursuant to Section 3.1 hereof and (ii) any registration, qualification or compliance pursuant to Section 3.2 or Section 3.4 hereof shall be borne by the Company; provided, however, that if the Holders bear the Registration Expenses for any registration proceeding begun pursuant to Section 3.1 and subsequently withdrawn by the Holders registering shares therein, such registration proceeding shall not be counted as a requested registration pursuant to Section 3.1 hereof. Furthermore, in the event that a withdrawal by the Holders is based upon material adverse information relating to the Company that is different from the information known or available (upon request from the Company or otherwise) to the Holders requesting registration at the time of their request for registration under Section 3.1, such registration shall not be treated as a counted registration for purposes of Section 3.1 hereof, even

though the Holders do not bear the Registration Expenses for such registration, and the Company shall bear all Registration Expenses of such withdrawn registration.

3.4 Registration on Form S-3.

(a) After the Company's securities trade on a national securities exchange or list on a national automatic quotation system, in either case, located in the United States, the Company shall use its best efforts to qualify for registration on Form S-3 or any comparable or successor form or forms, including (but not by way of limitation) taking such action, including voluntary registration of its Common Stock under Section 12 of the Exchange Act, as is necessary to enable the Holders to utilize Form S 3 for the sale of Registrable Securities. After the Company has qualified for the use of Form S-3, in addition to the rights contained in the foregoing provisions of this Section 3, the Holders of Registrable Securities shall have the right to request registrations on Form S-3 (such requests shall be in writing and shall state the number of shares of Registrable Securities to be disposed of and the intended methods of disposition of such shares by such Holders); provided, however, that the Company shall not be obligated to effect any such registration (i) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) on Form S-3 at an aggregate price to the public of less than $2,000,000, (ii) in the event that the Company shall furnish the certification described in paragraph 3.1(b)(ii) (but subject to the limitations set forth therein), or (iii) if, in a given twelve-month period, the Company has effected two (2) such registrations in any such period.

(b) If a request complying with the requirements of Section 3.4(a) hereof is delivered to the Company, the provisions of Sections 3.1(a)(i), (ii), (A) and (C) and Section 3.1(b) above shall apply to such registration. If the registration is for an underwritten offering, the provisions of Sections 3.1(c) and 3.1(d) hereof shall also apply to such registration.

3.5 Registration Procedures. In the case of each registration effected by the Company pursuant to Section 3, the Company will keep each Holder advised in writing as to the initiation of each registration and as to the completion thereof. At its expense, the Company will use its best efforts to:

(a) Keep such registration effective for a period of (I) one hundred twenty (120) days in connection with a registration pursuant to Section 3.1, or (II) one hundred eighty (180) days in connection with a registration pursuant to Section 3.4, or in either case until the Holder or Holders have completed the distribution described in the registration statement relating thereto, whichever first occurs; provided, however, that (i) such 120-day period shall be extended for a period of time equal to the period the Holder refrains from selling any securities included in such registration at the request of an underwriter of Common Stock (or other securities) of the Company; and (ii) in the case of any registration of Registrable Securities on Form S-3 which are intended to be offered on a continuous or delayed basis, such 180-day period shall be extended, if necessary, to keep the registration statement effective until all such Registrable Securities are sold,

provided that Rule 145, or any successor rule under the Securities Act, permits an offering on a continuous or delayed basis, and provided, further, that applicable rules under the Securities Act governing the obligation to file a post-effective amendment permit, in lieu of filing a post-effective amendment that (x) includes any prospectus required by Section 10(a)(3) of the Securities Act or (y) reflects facts or events representing a material or fundamental change in the information set forth in the registration statement, the incorporation by reference of information otherwise required to be included in (x) and (y) above (from periodic reports filed pursuant to Section 13 or 15(d) of the Exchange Act);

(b) Prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement;

(c) Furnish such number of prospectuses, including preliminary prospectuses and other documents incident thereto, in conformity with the Securities Act, including any amendment of or supplement to the prospectus, as a Holder from time to time may reasonably request;

(d) Use all reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions (unless the Company is already subject to service in any such jurisdiction and except as may be required by the Securities Act);

(e) Notify each seller of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in the light of the circumstances then existing, and at the request of any such seller, prepare and furnish to such seller a reasonable number of copies of a supplement to or an amendment of such prospectus as may be necessary so that, as thereafter delivered to the purchasers of such shares, such prospectus shall not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in the light of the circumstances then existing;

(f) Cause all such Registrable Securities registered pursuant to such registration statement to be listed on each securities exchange on which similar securities issued by the Company are then listed;

(g) Provide a transfer agent and registrar for all Registrable Securities registered pursuant to such registration statement and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) Furnish, at the request of a majority of the Holders participating in the registration, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, or, if such securities are not being sold through underwriters, on the date that the registration statement with respect to such securities becomes effective, (i) an opinion, dated as of such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering and reasonably satisfactory to a majority in interest of the Holders requesting registration, addressed to the underwriters, if any, or to the Holders requesting registration of Registrable Securities, and (ii) a letter dated as of such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering and reasonably satisfactory to a majority in interest of the Holders requesting registration, addressed to the underwriters, if any, or (if permitted by applicable accounting standards) to the Holders requesting registration of Registrable Securities;

(i) Use its best efforts to cause the Registrable Securities covered by such registration statement to be registered with or approved by such other governmental agencies or authorities as may be necessary by virtue of the business and operations of the Company to enable the seller or sellers thereof to consummate the disposition of such Registrable Securities;

(j) Make available for inspection by any seller of Registrable Securities, any underwriter participating in any disposition pursuant to such registration statement, and any attorney, accountant, or another agent retained by any such seller or underwriter (collectively, the **"Inspectors"**), all financial and other records, pertinent corporate documents, and properties of the Company (collectively, the **"Records"**) as shall be reasonably necessary to enable them to exercise their due diligence responsibility, and cause the Company's officers, directors, and employees to supply all information reasonably requested by any such Inspector in connection with such registration statement. Records which the Company determines, in good faith, to be confidential shall not be disclosed by the Inspectors unless (i) the disclosure of such Records is necessary to avoid or correct a misstatement or omission in the registration statement or (ii) the release of such Records is ordered pursuant to a subpoena or other order from a court of competent jurisdiction. The seller of Registrable Securities agrees that it will, upon learning that disclosure of such Records is sought in a court of competent jurisdiction, give notice to the Company and allow the Company, at the Company's expense, to undertake appropriate action to prevent disclosure of the Records deemed confidential;

(k) Otherwise use its best efforts to comply with all applicable rules and regulations of the Commission, and make available to its security holders, as soon as

reasonably practicable, an earnings statement covering a period of twelve (12) months, beginning within three (3) months after the effective date of the registration statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 thereunder; and

(l) In connection with any underwritten offering pursuant to a registration statement filed pursuant to Section 3.1 above, the Company will enter into an underwriting agreement in form reasonably necessary to effect the offer and sale of Common Stock, provided that such underwriting agreement contains customary underwriting provisions and, if the underwriter so requests, the underwriting agreement also contains customary contribution provisions.

3.6 Indemnification. In the event any Registrable Securities are included in a registration statement under Sections 3.1, 3.2 or 3.4 above:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, the partners, shareholders, members, officers and directors of each Holder, legal counsel, accountants, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages or liabilities (joint or several) to which they may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a **"Violation"**) by the Company: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein, any exhibits attached thereto or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law in connection with the offering covered by such registration statement; and the Company will reimburse each such Holder, partner, shareholder, member, officer or director, legal counsel, accountant, underwriter or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the indemnity agreement contained in this Section 3.6(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld or delayed, nor shall the Company be liable in any such case for any such loss, claim, damage, liability or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by any such Holder or any partner, shareholder, member, officer, director, legal counsel, accountant, underwriter or controlling person of any such Holder.

(b) To the extent permitted by law, each Holder will, if Registrable Securities held by such Holder are included in the securities as to which such registration, qualification or compliance is being effected, indemnify and hold harmless the Company, each of its directors, its officers and each person, if any, who controls the Company within the meaning of the Securities Act, any underwriter and any other Holder selling securities under such registration statement or any of such other Holder's partners, shareholders, members, directors or officers or any person who controls such Holder, against any losses, claims, damages or liabilities (joint or several) to which any of the foregoing persons may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder under an instrument duly executed by such Holder and stated to be specifically for use in connection with such registration; and each such Holder will reimburse any legal or other expenses reasonably incurred by any person intended to be indemnified pursuant to this subsection 3.6(b), in connection with investigating or defending any such loss, claim, damage, liability or action, if it is judicially determined that there was such a Violation; provided, however, that the indemnity agreement contained in this Section 3.6(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of such Holder, which consent shall not be unreasonably withheld; and provided, further, that in no event shall any indemnity under this Section 3.6(b) exceed the net proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 3.6 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 3.6, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party shall have the right to retain its own counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if materially prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 3.6, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 3.6.

(d) If the indemnification provided for in this Section 3.6 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages or liabilities referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall, to the extent permitted by

applicable law, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnifying party, on the one hand, and of the indemnified party, on the other, in connection with the Violation(s) that resulted in such loss, claim, damage or liability, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; provided, however, that in no event shall any contribution by a Holder hereunder exceed the proceeds from the offering received by such Holder.

(e) The obligations of the Company and Holders under this Section 3.6 shall survive completion of any offering of Registrable Securities in a registration statement and the termination of this agreement. No indemnifying party, in the defense of any such claim or litigation, shall, except with the consent of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect to such claim or litigation.

3.7 Information by Holder. It shall be a condition precedent to the obligations of the Company to take any action pursuant to Sections 3.1, 3.2 or 3.4 above with respect to Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding such Holder and the distribution proposed by such Holder as the Company may reasonably request in writing and as shall be reasonably required in connection with any registration, qualification or compliance referred to in this Section 3.

3.8 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of a majority in interest of the Holders, enter into any agreement with any holder or prospective holder of any securities of the Company giving such holder or prospective holder any (i) registration rights the terms of which are as or more favorable than the registration rights granted to the Holders hereunder or (ii) piggyback registration rights (i.e., rights similar to those set forth in Section 3.2(a) above) which would reduce the number of shares includable by the holders in any registration pursuant to Section 3.2 above; provided, however, that notwithstanding the foregoing or any other provision of this Agreement to the contrary, any purchaser of Shares from the Company, and any recipient of warrants or other rights from the Company to acquire Shares, shall be permitted to join this Agreement as a party with only the consent of the Company provided that any rights granted to such purchaser are in all respects junior to the rights granted hereunder to the Holders of Series C Shares.

3.9 Rule 144 Reporting. With a view to making available to the Holders the benefits of certain rules and regulations of the Commission which may permit the sale of the Registrable Securities to the public without registration, the Company agrees to use its best efforts to:

(a) Make and keep public information available, as those terms are understood and defined in Rule 144, at all times after the effective date of the first registration filed by the Company under the Securities Act for an offering of its securities to the general public;

(b) File with the Commission, in a timely manner, all reports and other documents required of the Company under the Exchange Act; and

(c) So long as a Holder owns any Registrable Securities, furnish to such Holder forthwith upon request: (i) a written statement by the Company as to its compliance with the reporting requirements of Rule 144, and of the Exchange Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time when it so qualifies); (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (iii) such other reports and documents as a Holder may reasonably request in availing itself of any rule or regulation of the Commission allowing it to sell any such securities without registration.

3.10 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 3 may be assigned by a Holder only to a transferee or assignee of Registrable Securities which acquires at least Five Hundred Thousand (500,000) shares of Registrable Securities (in each case as adjusted for stock splits, stock dividends, combinations and other recapitalizations); provided, however, that (i) the transferor shall, within a reasonable time after such transfer, furnish to the Company written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned, and (ii) such transferee shall agree to be subject to all restrictions and obligations set forth in this Agreement; and provided, further, that any Investor hereto may transfer Registrable Securities either (a) to any **"affiliate(s)"** (as defined in Rule 405 promulgated under the Securities Act) of such Investor (which, in the case of an Investor which is a U.S. limited partnership, shall also include without limitation current and former limited partners, general partners, members and principals of such Investor or any general partner of such Investor) or (b) to such Investor's spouse, children or grandchildren, or to a trust for the exclusive benefit of such Investor, such Investor's spouse, children or grandchildren, without regard to the foregoing numerical limitations so long as such Investor and all such assignees agree (as evidenced in a writing to be delivered to the Company prior to any such assignment) that such Investor (or its designee) will act as the single attorney-in-fact for all such assignees for the purpose of exercising any rights, receiving any notices or taking any other action under this Section 3. For the purposes of determining the number of shares of Registrable Securities held by a transferee or assignee, the holdings of transferees and assignees of a partnership who are partners or retired partners of such partnership (including spouses and ancestors, lineal descendants and siblings of such partners or spouses who acquire Registrable Securities by gift, will or intestate succession) shall be aggregated together and with the partnership; provided, however, that all assignees and transferees who would not qualify individually for assignment of registration rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving any notices or taking any other action under this Section 3.

3.11 "Market Stand Off" Agreement. Each Holder hereby agrees that such Holder shall not sell or otherwise transfer or dispose of any Registrable Securities held by such Holder (other than those included in the registration at issue, if any) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of a registration statement of the Company filed under the Securities Act and commencing up to seven (7) days prior to such effective date; provided that all officers and directors of the Company and all other persons with registration rights (whether or not pursuant to this Agreement) enter into similar agreements. Each Holder agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. The Company agrees to cause all officers, directors and holders of one percent (1%) or more to be bound by the provisions of this Section 3.11. The Company agrees that it shall not release any Holder (or any person referred to in the preceding sentence) from the obligations imposed pursuant to this Section 3.11 unless all Holders are so released on a proportionate basis relative to their ownership of Registrable securities. The obligations described in this Section 3.11 shall not apply to a registration relating solely to employee benefit plans on Form S 8 or similar forms that may be promulgated in the future, or a registration relating solely to a Rule 145 transaction on Form S 4 or similar forms that may be promulgated in the future. The Company may impose stop transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred eighty (180) day period.

3.12 Allocation of Registration Opportunities. In any circumstance in which all of the Registrable Securities and other shares of Common Stock (including shares of Common Stock issued or issuable upon conversion of shares of any currently unissued series of Preferred Stock of the Company) with registration rights (the **"Other Shares"**) requested to be included in a registration on behalf of the Holders or other selling shareholders cannot be so included as a result of limitations on the aggregate number of shares of Registrable Securities and Other Shares that may be so included, the number of shares of Registrable Securities and Other Shares that may be so included shall be allocated among the Holders and other selling shareholders requesting inclusion of shares first to the Holders pro rata on the basis of the number of shares of Registrable Securities held by such Holders (assuming conversion) and then, if any availability remains, to the other selling shareholders pro rata on the basis of the number of Other Shares held by such other selling shareholders (assuming conversion); provided, however, that such allocation shall not operate to reduce the aggregate number of Registrable Securities and Other Shares to be included in such registration. If any Holder or other selling shareholder does not request inclusion of the maximum number of shares of Registrable Securities and Other Shares allocated to such Holder or shareholder pursuant to the above-described procedure, the remaining portion of the allocation of such Holder or shareholder shall be reallocated among those requesting Holders and other selling shareholders whose allocations did not satisfy their requests in the priority identified above pro rata on the basis of the number of shares of Registrable Securities and Other Shares, as applicable, that are held by such Holders and other selling shareholders, as applicable, in each case assuming conversion, and this procedure shall be repeated until all of the shares of Registrable Securities and Other Shares which may be included in the registration on behalf of the Holders and other selling shareholders shall have been so allocated. The Company shall not limit the number of Registrable Securities to be included in a registration pursuant to this Agreement in order to include shares held by shareholders with no

registration rights or to include any shares of stock issued to employees, officers, directors or consultants pursuant to the Company's stock option plan or any other employee benefit plan (or, with respect to registrations under Sections 3.1 or 3.4 hereof, in order to include in such registration securities registered for the Company's own account).

3.13 Delay of Registration. No Holder shall have any right to take any action to restrain, enjoin or otherwise delay any registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 3.

3.14 Termination Rights. A Holder's registration rights shall expire if all of the following conditions are met: (a) as reflected on the Company's books and records, such Holder (together with its affiliates) holds less than 1% of the Company's outstanding Common Stock (on an as-if-converted to Common Stock basis), (b) the Company's securities trade on a national securities exchange or list on a national automatic quotation system, in each case, located in the United States, and (c) all shares of Common Stock issued or issuable upon conversion of the Registrable Securities held by such Holder (and its affiliates) either (i) may be sold pursuant to Rule 144 during any ninety (90) day period or (ii) have ceased to be outstanding.

SECTION 4

Miscellaneous

4.1 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California without giving effect to the principles of conflicts of law. Each of the parties hereto hereby irrevocably and unconditionally consents to submit to the exclusive jurisdiction of the courts of the State of California and of the United States of America, in each case located in the County of San Diego, for any action, proceeding or investigation in any court or before any governmental authority (**"Litigation"**) arising out of or relating to this Agreement and the transactions contemplated hereby (and agrees not to commence any Litigation relating thereto except in such courts), and further agrees that service of any process, summons, notice or document by U.S. registered mail to its respective address as described in Section 4.4 shall be effective service of process for any Litigation brought against it in any such court. Each of the parties hereto hereby irrevocably and unconditionally waives any objection to the laying of venue of any Litigation arising out of this Agreement or the transactions contemplated hereby in the courts of the State of California or the United States of America, in each case located in the County of San Diego, and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such Litigation brought in any such court has been brought in an inconvenient forum.

4.2 Successors and Assigns. Except as otherwise expressly provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto.

4.3 Entire Agreement; Amendment. This Agreement constitutes the full and entire understanding and agreement between the parties with regard to the subjects hereof. Except as provided in Section 4.11 below, neither this Agreement nor any term hereof may be amended, discharged or terminated, except by a written instrument signed by the Company and the holders

of at least (i) fifty percent (50%) of the Registrable Securities, and (ii) fifty percent (50%) of the Preferred Shares (for so long as Preferred Shares remain outstanding). Any such amendment, discharge or termination shall be binding on all the Holders, but in no event shall the obligation of any Holder hereunder be materially increased, except upon the written consent of such Holder.

4.4 Notices. All notices and other communications required or permitted hereunder shall be in writing and shall be mailed by United States first-class mail, postage prepaid, sent by facsimile or delivered personally by hand or nationally recognized courier addressed (a) if to a Holder, as indicated on the list of Holders attached hereto as Exhibit A, or at such other address as such holder or permitted assignee shall have furnished to the Company in writing, or (b) if to the Company, at such address or facsimile number as the Company shall have furnished to each Holder in writing. All such notices and other written communications shall be deemed effective (i) on the date of facsimile transfer (receipt acknowledged) or delivery by courier, (ii) after five (5) business days following deposit registered or certified mail with the United States Post Office or (iii) two (2) business days following deposit with an overnight courier. All facsimile transmissions shall be accompanied by the deposit of the notice via United States mail as set forth in clause (ii).

4.5 Delays or Omissions; Waiver. No delay or omission to exercise any right, power or remedy accruing to any Holder upon any breach or default of the Company under this Agreement shall impair any such right, power or remedy of such Holder, nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any Holder or the Company of any breach or default under this Agreement or any waiver on the part of the Company or any Holder of any provisions or conditions of this Agreement must be made in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any Holder or the Company, shall be cumulative and not alternative.

4.6 Rights; Separability. Unless otherwise expressly provided herein, a Holder's rights hereunder are several rights, not rights jointly held with any of the other Holders. In case any provision of the Agreement shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

4.7 Information Confidential. Each Holder acknowledges that the information received by it pursuant hereto may be confidential and for such Holder's use only, and such Holder will not use such confidential information in violation of the Exchange Act or reproduce, disclose or disseminate such information to any other person (other than its employees, directors, affiliates, or agents having a need to know the contents of such information, and its attorneys), except in connection with the exercise of rights under this Agreement, unless the Company has made such information available to the public generally or such Holder is required to disclose such information by a governmental body.

4.8 Titles and Subtitles. The titles of the paragraphs and subparagraphs of this Agreement are for convenience of reference only and are not to be considered in construing or interpreting this Agreement.

4.9 Aggregation of Stock. All shares of Registrable Securities held or acquired by Holders and its transferees, if any, shall be aggregated together for the purpose of determining the availability of any rights under the Agreement.

4.10 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

4.11 Condition Precedent to Agreement. This Agreement shall not bind, or grant rights to, the holders of the Preferred Shares with respect to such stock, unless and until it is executed by the holders of at least fifty percent (50%) of the Registrable Securities (as defined in the Prior Agreement) and the Company. Upon execution and delivery of this Agreement by the holders of at least fifty percent (50%) of the Registrable Securities (as defined in the Prior Agreement) and the Company, this Agreement shall supersede, and replace in its entirety, the Prior Agreement.

4.12 Foreign Registrations. The parties acknowledge that the Company may attempt to register and achieve a listing (a **"TSE Registration"**) of the Common Stock on the Tokyo Stock Exchange (the **"TSE"**). The parties further acknowledge and agree that, in connection with any TSE Registration, the time period under Section 3.11 during which the Holders may sell or otherwise transfer or dispose of any Registrable Securities will be subject to the rules and regulations of the TSE and any other governmental or quasi-governmental authority in Japan having jurisdiction over the registration and listing of the Common Stock in Japan (collectively, **"Japanese Securities Laws"**) and shall be the subject of a further negotiation and separate written agreement between the Company and the underwriter(s) engaged by the Company in connection with the initial TSE Registration, and subject to the written approval of Essex Woodlands Health Ventures Fund VI, L.P. (**"Essex"**) and Investors (other than Essex) holding a majority of the Series C Preferred Stock immediately prior to the TSE Registration (the **"Investor Majority"**). Any written agreement of Essex and the Investor Majority as contemplated above shall be binding on all Holders. Without limiting the generality of the foregoing, the parties hereto acknowledge that in connection with any such written agreement Essex or the Investor Majority may (but shall not be required to) condition their approval upon the Company agreeing to take such steps, if any, as are necessary or desirable to ensure that the Registrable Securities are freely tradable on the TSE after the applicable restricted period expires.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.]

IN WITNESS WHEREOF, the parties hereto have executed this Amended and Restated Registration Rights Agreement effective as of the Effective Date.

THE COMPANY:

MEDICINOVA, INC.

By: /s/ TAKASHI KIYOIZUMI
Takashi Kiyoizumi,
President and CEO

Address: 4350 La Jolla Village Drive
Suite 950
San Diego, California 92122 U.S.A.

Fax No: 858-373-7000

FOUNDERS:

/s/ TAKASHI KIYOIZUMI
Takashi Kiyoizumi

/s/ YUICHI IWAKI
Yuichi Iwaki

SERIES A INVESTOR:

TANABE HOLDING AMERICA, INC.

By: /s/ NORIHITO UJINO
Name: **Norihito Ujino**
Title: **President and CEO**

SERIES B INVESTORS:

/S/ SERIES B INVESTORS
Investor Name

SERIES C INVESTORS:

/S/ SERIES C INVESTORS
Investor Name

EXHIBIT 4.3

THIS WARRANT WAS ORIGINALLY ISSUED EFFECTIVE SEPTEMBER 26, 2000 AND SUCH ISSUANCE WAS NOT REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED OR ANY APPLICABLE STATE SECURITIES LAWS. CONSEQUENTLY, THIS WARRANT MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF UNLESS REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR AN EXEMPTION FROM SUCH REGISTRATION IS AVAILABLE.

AMENDED AND RESTATED STOCK PURCHASE WARRANT

Date of Issuance: September 26, 2000 Certificate No. W-1
Date of Amendment and Restatement: September 2, 2004

FOR VALUE RECEIVED, MediciNova, Inc., a Delaware corporation (the "**Company**"), hereby grants to **TAKASHI KIYOIZUMI** (the "**Holder**"), the right to purchase from the Company 6,428,286 shares of Common Stock, par value $0.001 per share (the "**Common Stock**"), at a price per share of $0.10 (as adjusted from time to time hereunder, the "**Exercise Price**"). The Company and Holder acknowledge and agree that this Amended and Restated Stock Purchase Warrant (this "**Warrant**") amends, restates and supercedes in its entirety that certain Stock Purchase Warrant dated September 26, 2000 previously issued to the Holder, as the same may have been amended from time to time prior to the date hereof.

This Warrant is subject to the following provisions:

1. Exercise of Warrant.

1.A. Exercise Period. The Holder may exercise, in whole or in part, the purchase rights represented by this Warrant at any time and from time to time after the close of business on September 26, 2002 to and including the close of business on September 26, 2007, or, if such day is not a business day, on the next preceding business day (the "**Exercise Period**").

1.B. Exercise Procedure.

(i) This Warrant shall be deemed to have been exercised when the Company has received all of the following items (the "**Exercise Time**"):

(a) a completed Exercise Agreement, as described in paragraph 1C below, executed by the Holder exercising all or part of the purchase rights represented by this Warrant;

(b) this Warrant; and

(c) either (1) a check payable to the Company in an amount equal to the product of the Exercise Price multiplied by the number of shares of Common Stock being purchased upon such exercise (the "**Aggregate Exercise Price**"); or (2) a written notice to the Company that the Purchaser is exercising the Warrant (or a portion thereof) on a "cashless" basis by authorizing the Company to withhold from issuance a number of shares (including any fraction thereof) of Common Stock issuable upon such exercise of the Warrant which when

multiplied by the fair value of the Common Stock (as reasonably determined by the board of directors of the Company) is equal to the Aggregate Exercise Price (and such withheld shares shall no longer be issuable under this Warrant).

(ii) Certificates for shares of Common Stock purchased upon exercise of this Warrant shall be delivered by the Company to the Holder within five (5) Business Days after the date of the Exercise Time. Unless this Warrant has expired or all of the purchase rights represented hereby have been exercised, the Company shall prepare a new Warrant, substantially identical hereto, representing the rights formerly represented by this Warrant which have not expired or been exercised and shall within such five (5) day period, deliver such new Warrant to the Holder.

(iii) The Common Stock issuable upon the exercise of this Warrant shall be deemed to have been issued to the Holder at the Exercise Time, and the Holder shall be deemed for all purposes to have become the record holder of such Common Stock at the Exercise Time.

(iv) The issuance of certificates for shares of Common Stock upon exercise of this Warrant shall be made without charge to the Holder for any issuance tax in respect thereof or other cost incurred by the Company in connection with such exercise and the related issuance of shares of Common Stock, except that Holder shall be liable for any tax attributable to the issuance of such shares in the name of any person or entity other than Holder (to the extent Holder elects to have such shares issued in such manner). Each share of Common Stock issuable upon exercise of this Warrant shall upon payment of the Exercise Price therefor, be fully paid and nonassessable and free from all liens and charges with respect to the issuance thereof, except for liens and charges relating to any tax for which the Holder is liable under the preceding sentence.

(v) The Company shall not close its books against the transfer of this Warrant or of any share of Common Stock issued or issuable upon the exercise of this Warrant in any manner which interferes with the timely exercise of this Warrant. The Company shall from time to time take all such action as may be necessary to assure that the par value per share of the unissued Common Stock acquirable upon exercise of this Warrant is at all times equal to or less than the Exercise Price then in effect.

(vi) The Company shall assist and cooperate with the Holder required to make any governmental filings or obtain any governmental approvals prior to or in connection with any exercise of this Warrant (including, without limitation, making any filings required to be made by the Company).

(vii) The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purpose of issuance upon the exercise of the Warrants, such number of shares of Common Stock issuable upon the exercise of all outstanding Warrants. All shares of Common Stock which are so issuable shall, when issued, be duly and validly issued, fully paid and nonassessable and free from all taxes, liens and charges. The Company shall take all such actions as may be necessary to assure that all such shares of Common Stock may be so issued without violation of any applicable law or

governmental regulation or any requirements of any domestic securities exchange upon which shares of Common Stock may be listed (except for official notice of issuance which shall be immediately delivered by the Company upon each such issuance). The Company shall not take any action which would cause the number of authorized but unissued shares of Common Stock to be less than the number of such shares required to be reserved hereunder for issuance upon exercise of the Warrants.

1.C. Exercise Agreement. Upon any exercise of this Warrant, the Exercise Agreement shall be substantially in the form set forth in Exhibit A hereto. Such Exercise Agreement shall be dated the actual date of execution thereof.

2. Adjustment of Exercise Price and Number of Shares. In order to prevent dilution of the rights granted under this Warrant, the Exercise Price shall be subject to adjustment from time to time as provided in this Section 2, and the number of shares of Common Stock obtainable upon exercise of this Warrant shall be subject to adjustment from time to time as provided in this Section 2.

2.A. Subdivision or Combination of Common Stock. If the Company at any time subdivides (by any stock split, stock dividend, recapitalization or otherwise) its Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision shall be proportionately reduced and the number of shares of Common Stock obtainable upon exercise of this Warrant shall be proportionately increased. If the Company at any time combines (by reverse stock split or otherwise) its Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination shall be proportionately increased and the number of shares of Common Stock obtainable upon exercise of this Warrant shall be proportionately decreased.

2.B. Reorganization, Reclassification, Consolidation, Merger or Sale. Any recapitalization, reorganization, reclassification, consolidation, merger, sale of all or substantially all of the Company's assets or other transaction, in each case which is effected in such a way that the holders of Common Stock are entitled to receive (either directly or upon subsequent liquidation) stock, securities or assets with respect to or in exchange for Common Stock is referred to herein as "**Organic Change**". Prior to the consummation of any Organic Change, the Company shall make appropriate provision (in form and substance satisfactory to the Required Holders) to insure that the Holder shall thereafter have the right to acquire and receive, in lieu of or in addition to (as the case may be) the shares of Common Stock immediately theretofore acquirable and receivable upon the exercise of this Warrant, such shares of stock, securities or assets as may be issued or payable with respect to or in exchange for the number of shares of Common Stock issuable upon conversion of the Common Stock immediately theretofore acquirable and receivable upon exercise of such holder's Warrant had such Organic Change not taken place. In any such case, the Company shall make appropriate provision with respect to the Holder's rights and interests to insure that the provisions of this Section 2 and Section 3 hereof shall thereafter be applicable to the Warrants (including, in the case of any such consolidation, merger or sale in which the successor entity or purchasing entity is other than the Company, an immediate adjustment of the Exercise Price to the value for the Common Stock reflected by the terms of such consolidation, merger or sale, if the value so reflected is less than the Exercise Price in effect immediately prior to such consolidation, merger or sale). Any stock, securities or

assets received pursuant to this Section 2.B shall be made without duplication of any stock, securities or assets paid pursuant to Section 3 below.

3. Liquidating Dividends. If the Company during the Exercise Period declares or pays a dividend upon the Common Stock payable otherwise than in cash out of earnings or surplus (determined in accordance with generally accepted accounting principles, consistently applied in the United States) except for a stock dividend payable in shares of Common Stock (a "**Liquidating Dividend**"), then the Company shall pay to the Holder at the time of payment thereof the Liquidating Dividend which would have been paid to the Holder on the Common Stock had this Warrant been fully exercised immediately prior to the date on which a record is taken for such Liquidating Dividend (or, if no record is taken, the date as of which the record holders of Common Stock entitled to such dividends are to be determined). Any stock, securities or assets received pursuant to this Section 3 shall be made without duplication of any stock, securities or assets paid pursuant to Section 2.B above.

4. No Voting Rights; Limitations of Liability. This Warrant shall not entitle the Holder hereof to any voting rights or other rights as a stockholder of the Company. No provision hereof, in the absence of affirmative action by the Holder to purchase Common Stock, and no enumeration herein of the rights or privileges of the Holder shall give rise to any liability of such holder for the Exercise Price of Common Stock acquirable by exercise hereof or as a stockholder of the Company.

5. Warrant Exchangeable for Different Denominations. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for new Warrants of like tenor representing in the aggregate the purchase rights hereunder, and each of such new Warrants shall represent such portion of such rights as is designated by the Holder at the time of such surrender. The date the Company initially issues this Warrant shall be deemed to be the "Date of Issuance" hereof regardless of the number of times new certificates representing the unexpired and unexercised rights formerly represented by this Warrant shall be issued. All Warrants representing portions of the rights hereunder are referred to herein as the "Warrants."

6. Replacement. Upon receipt of evidence reasonably satisfactory to the Company (an affidavit of the Holder shall be satisfactory) of the ownership and the loss, theft, destruction or mutilation of any certificate evidencing this Warrant, and in the case of any such loss, theft or destruction, upon receipt of an unsecured indemnity agreement of the Holder in form reasonably satisfactory to the Company, or, in the case of any such mutilation upon surrender of such certificate, the Company shall (at its expense) execute and deliver in lieu of such certificate a new certificate of like kind representing the same rights represented by such lost, stolen, destroyed or mutilated certificate and dated the date of such lost, stolen, destroyed or mutilated certificate.

7. Notices. Except as otherwise expressly provided hereunder, all notices referred to herein shall be in writing and shall be (i) delivered in person, (ii) transmitted by telecopy, or (iii) sent by reputable overnight courier service, fees prepaid, to (x) the Company, at its principal executive offices and (y) to the Holder, at the Holder's address or telecopy as it appears in the records of the Company (unless otherwise indicated in writing by the Holder). Notices shall be

deemed given upon personal delivery, upon receipt of return receipt in the case of delivery by mail, upon acknowledgment by the receiving telecopier or one day following deposit with an overnight courier service.

8. Amendment and Waiver. Except as otherwise provided herein, the provisions of this Warrant may be amended only by written agreement of the Company and the Holder, and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder.

9. Warrant Register. The Company shall maintain at its principal executive offices books for the registration of this Warrant. The Company may deem and treat the Holder as the absolute owner hereof (notwithstanding any notation of ownership or other writing hereon made by anyone) for all purposes and shall not be affected by any notice to the contrary.

10. Certain Agreements. This Warrant, the exercise of, and the securities underlying, this Warrant are subject to the terms of that certain Common Stock and Warrant Purchase Agreement dated September 26, 2000. The securities underlying this Warrant are subject to the terms of that certain Amended and Restated Registration Rights Agreement, that certain Amended and Restated Voting Agreement and that certain Right of First Refusal and Co-Sale Agreement, each of even date herewith.

11. Descriptive Headings; Governing Law. The descriptive headings of the several Sections and paragraphs of this Warrant are inserted for convenience only and do not constitute a part of this Warrant. **THE CONSTRUCTION, VALIDITY AND INTERPRETATION OF THIS WARRANT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF CALIFORNIA WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW.**

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed and attested by its duly authorized officers under its corporate seal and to be dated the Date of Issuance hereof.

MEDICINOVA, INC.

By: /s/ TAKASHI KIYOIZUMI
Takashi Kiyoizumi
President and Chief Executive Officer

Accepted and agreed as of the date hereof,

/s/ TAKASHI KIYOIZUMI
Takashi Kiyoizumi

EXHIBIT A

EXERCISE AGREEMENT

To: Dated:

The undersigned, pursuant to the provisions set forth in the attached Amended and Restated Stock Purchase Warrant (Certificate No. W-_____), hereby agrees to subscribe for the purchase of _____ shares of the Common Stock covered by such Amended and Restated Stock Purchase Warrant and makes payment herewith in full therefor at the price per share provided by such Amended and Restated Stock Purchase Warrant and requests that the certificates for such shares be issued in the name of, and delivered to, _____, whose address is _____.

Signature: _____

Name: _____

Address: _____

_____

_____

EXHIBIT 4.4

THIS WARRANT WAS ORIGINALLY ISSUED EFFECTIVE SEPTEMBER 26, 2000 AND SUCH ISSUANCE WAS NOT REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED OR ANY APPLICABLE STATE SECURITIES LAWS. CONSEQUENTLY, THIS WARRANT MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF UNLESS REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR AN EXEMPTION FROM SUCH REGISTRATION IS AVAILABLE.

AMENDED AND RESTATED STOCK PURCHASE WARRANT

Date of Issuance: September 26, 2000 Certificate No. W-2
Date of Amendment and Restatement: September 2, 2004

FOR VALUE RECEIVED, MediciNova, Inc., a Delaware corporation (the "**Company**"), hereby grants to **YUICHI IWAKI** (the "**Holder**"), the right to purchase from the Company 6,428,286 shares of Common Stock, par value $0.001 per share (the "**Common Stock**"), at a price per share of $0.10 (as adjusted from time to time hereunder, the "**Exercise Price**"). The Company and Holder acknowledge and agree that this Amended and Restated Stock Purchase Warrant (this "**Warrant**") amends, restates and supercedes in its entirety that certain Stock Purchase Warrant dated September 26, 2000 previously issued to the Holder, as the same may have been amended from time to time prior to the date hereof.

This Warrant is subject to the following provisions:

1. Exercise of Warrant.

1.A. Exercise Period. The Holder may exercise, in whole or in part, the purchase rights represented by this Warrant at any time and from time to time after the close of business on September 26, 2002 to and including the close of business on September 26, 2007, or, if such day is not a business day, on the next preceding business day (the "**Exercise Period**").

1.B. Exercise Procedure.

(i) This Warrant shall be deemed to have been exercised when the Company has received all of the following items (the "**Exercise Time**"):

(a) a completed Exercise Agreement, as described in paragraph 1C below, executed by the Holder exercising all or part of the purchase rights represented by this Warrant;

(b) this Warrant; and

(c) either (1) a check payable to the Company in an amount equal to the product of the Exercise Price multiplied by the number of shares of Common Stock being purchased upon such exercise (the "**Aggregate Exercise Price**"); or (2) a written notice to the Company that the Purchaser is exercising the Warrant (or a portion thereof) on a "cashless" basis by authorizing the Company to withhold from issuance a number of shares (including any fraction thereof) of Common Stock issuable upon such exercise of the Warrant which when

multiplied by the fair value of the Common Stock (as reasonably determined by the board of directors of the Company) is equal to the Aggregate Exercise Price (and such withheld shares shall no longer be issuable under this Warrant).

(ii) Certificates for shares of Common Stock purchased upon exercise of this Warrant shall be delivered by the Company to the Holder within five (5) Business Days after the date of the Exercise Time. Unless this Warrant has expired or all of the purchase rights represented hereby have been exercised, the Company shall prepare a new Warrant, substantially identical hereto, representing the rights formerly represented by this Warrant which have not expired or been exercised and shall within such five (5) day period, deliver such new Warrant to the Holder.

(iii) The Common Stock issuable upon the exercise of this Warrant shall be deemed to have been issued to the Holder at the Exercise Time, and the Holder shall be deemed for all purposes to have become the record holder of such Common Stock at the Exercise Time.

(iv) The issuance of certificates for shares of Common Stock upon exercise of this Warrant shall be made without charge to the Holder for any issuance tax in respect thereof or other cost incurred by the Company in connection with such exercise and the related issuance of shares of Common Stock, except that Holder shall be liable for any tax attributable to the issuance of such shares in the name of any person or entity other than Holder (to the extent Holder elects to have such shares issued in such manner). Each share of Common Stock issuable upon exercise of this Warrant shall upon payment of the Exercise Price therefor, be fully paid and nonassessable and free from all liens and charges with respect to the issuance thereof, except for liens and charges relating to any tax for which the Holder is liable under the preceding sentence.

(v) The Company shall not close its books against the transfer of this Warrant or of any share of Common Stock issued or issuable upon the exercise of this Warrant in any manner which interferes with the timely exercise of this Warrant. The Company shall from time to time take all such action as may be necessary to assure that the par value per share of the unissued Common Stock acquirable upon exercise of this Warrant is at all times equal to or less than the Exercise Price then in effect.

(vi) The Company shall assist and cooperate with the Holder required to make any governmental filings or obtain any governmental approvals prior to or in connection with any exercise of this Warrant (including, without limitation, making any filings required to be made by the Company).

(vii) The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purpose of issuance upon the exercise of the Warrants, such number of shares of Common Stock issuable upon the exercise of all outstanding Warrants. All shares of Common Stock which are so issuable shall, when issued, be duly and validly issued, fully paid and nonassessable and free from all taxes, liens and charges. The Company shall take all such actions as may be necessary to assure that all such shares of Common Stock may be so issued without violation of any applicable law or

governmental regulation or any requirements of any domestic securities exchange upon which shares of Common Stock may be listed (except for official notice of issuance which shall be immediately delivered by the Company upon each such issuance). The Company shall not take any action which would cause the number of authorized but unissued shares of Common Stock to be less than the number of such shares required to be reserved hereunder for issuance upon exercise of the Warrants.

1.C. Exercise Agreement. Upon any exercise of this Warrant, the Exercise Agreement shall be substantially in the form set forth in Exhibit A hereto. Such Exercise Agreement shall be dated the actual date of execution thereof.

2. Adjustment of Exercise Price and Number of Shares. In order to prevent dilution of the rights granted under this Warrant, the Exercise Price shall be subject to adjustment from time to time as provided in this Section 2, and the number of shares of Common Stock obtainable upon exercise of this Warrant shall be subject to adjustment from time to time as provided in this Section 2.

2.A. Subdivision or Combination of Common Stock. If the Company at any time subdivides (by any stock split, stock dividend, recapitalization or otherwise) its Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision shall be proportionately reduced and the number of shares of Common Stock obtainable upon exercise of this Warrant shall be proportionately increased. If the Company at any time combines (by reverse stock split or otherwise) its Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination shall be proportionately increased and the number of shares of Common Stock obtainable upon exercise of this Warrant shall be proportionately decreased.

2.B. Reorganization, Reclassification, Consolidation, Merger or Sale. Any recapitalization, reorganization, reclassification, consolidation, merger, sale of all or substantially all of the Company's assets or other transaction, in each case which is effected in such a way that the holders of Common Stock are entitled to receive (either directly or upon subsequent liquidation) stock, securities or assets with respect to or in exchange for Common Stock is referred to herein as "**Organic Change**". Prior to the consummation of any Organic Change, the Company shall make appropriate provision (in form and substance satisfactory to the Required Holders) to insure that the Holder shall thereafter have the right to acquire and receive, in lieu of or in addition to (as the case may be) the shares of Common Stock immediately theretofore acquirable and receivable upon the exercise of this Warrant, such shares of stock, securities or assets as may be issued or payable with respect to or in exchange for the number of shares of Common Stock issuable upon conversion of the Common Stock immediately theretofore acquirable and receivable upon exercise of such holder's Warrant had such Organic Change not taken place. In any such case, the Company shall make appropriate provision with respect to the Holder's rights and interests to insure that the provisions of this Section 2 and Section 3 hereof shall thereafter be applicable to the Warrants (including, in the case of any such consolidation, merger or sale in which the successor entity or purchasing entity is other than the Company, an immediate adjustment of the Exercise Price to the value for the Common Stock reflected by the terms of such consolidation, merger or sale, if the value so reflected is less than the Exercise Price in effect immediately prior to such consolidation, merger or sale). Any stock, securities or

assets received pursuant to this Section 2.B shall be made without duplication of any stock, securities or assets paid pursuant to Section 3 below.

3. Liquidating Dividends. If the Company during the Exercise Period declares or pays a dividend upon the Common Stock payable otherwise than in cash out of earnings or surplus (determined in accordance with generally accepted accounting principles, consistently applied in the United States) except for a stock dividend payable in shares of Common Stock (a "**Liquidating Dividend**"), then the Company shall pay to the Holder at the time of payment thereof the Liquidating Dividend which would have been paid to the Holder on the Common Stock had this Warrant been fully exercised immediately prior to the date on which a record is taken for such Liquidating Dividend (or, if no record is taken, the date as of which the record holders of Common Stock entitled to such dividends are to be determined). Any stock, securities or assets received pursuant to this Section 3 shall be made without duplication of any stock, securities or assets paid pursuant to Section 2.B above.

4. No Voting Rights; Limitations of Liability. This Warrant shall not entitle the Holder hereof to any voting rights or other rights as a stockholder of the Company. No provision hereof, in the absence of affirmative action by the Holder to purchase Common Stock, and no enumeration herein of the rights or privileges of the Holder shall give rise to any liability of such holder for the Exercise Price of Common Stock acquirable by exercise hereof or as a stockholder of the Company.

5. Warrant Exchangeable for Different Denominations. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for new Warrants of like tenor representing in the aggregate the purchase rights hereunder, and each of such new Warrants shall represent such portion of such rights as is designated by the Holder at the time of such surrender. The date the Company initially issues this Warrant shall be deemed to be the "Date of Issuance" hereof regardless of the number of times new certificates representing the unexpired and unexercised rights formerly represented by this Warrant shall be issued. All Warrants representing portions of the rights hereunder are referred to herein as the "Warrants."

6. Replacement. Upon receipt of evidence reasonably satisfactory to the Company (an affidavit of the Holder shall be satisfactory) of the ownership and the loss, theft, destruction or mutilation of any certificate evidencing this Warrant, and in the case of any such loss, theft or destruction, upon receipt of an unsecured indemnity agreement of the Holder in form reasonably satisfactory to the Company, or, in the case of any such mutilation upon surrender of such certificate, the Company shall (at its expense) execute and deliver in lieu of such certificate a new certificate of like kind representing the same rights represented by such lost, stolen, destroyed or mutilated certificate and dated the date of such lost, stolen, destroyed or mutilated certificate.

7. Notices. Except as otherwise expressly provided hereunder, all notices referred to herein shall be in writing and shall be (i) delivered in person, (ii) transmitted by telecopy, or (iii) sent by reputable overnight courier service, fees prepaid, to (x) the Company, at its principal executive offices and (y) to the Holder, at the Holder's address or telecopy as it appears in the records of the Company (unless otherwise indicated in writing by the Holder). Notices shall be

deemed given upon personal delivery, upon receipt of return receipt in the case of delivery by mail, upon acknowledgment by the receiving telecopier or one day following deposit with an overnight courier service.

8. Amendment and Waiver. Except as otherwise provided herein, the provisions of this Warrant may be amended only by written agreement of the Company and the Holder, and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder.

9. Warrant Register. The Company shall maintain at its principal executive offices books for the registration of this Warrant. The Company may deem and treat the Holder as the absolute owner hereof (notwithstanding any notation of ownership or other writing hereon made by anyone) for all purposes and shall not be affected by any notice to the contrary.

10. Certain Agreements. This Warrant, the exercise of, and the securities underlying, this Warrant are subject to the terms of that certain Common Stock and Warrant Purchase Agreement dated September 26, 2000. The securities underlying this Warrant are subject to the terms of that certain Amended and Restated Registration Rights Agreement, that certain Amended and Restated Voting Agreement and that certain Right of First Refusal and Co-Sale Agreement, each of even date herewith.

11. Descriptive Headings; Governing Law. The descriptive headings of the several Sections and paragraphs of this Warrant are inserted for convenience only and do not constitute a part of this Warrant. **THE CONSTRUCTION, VALIDITY AND INTERPRETATION OF THIS WARRANT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF CALIFORNIA WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW.**

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed and attested by its duly authorized officers under its corporate seal and to be dated the Date of Issuance hereof.

MEDICINOVA, INC.

By: /s/ TAKASHI KIYOIZUMI
Takashi Kiyoizumi
President and Chief Executive Officer

Accepted and agreed as of the date hereof,

/s/ YUICHI IWAKI
Yuichi Iwaki

EXHIBIT A

EXERCISE AGREEMENT

To: Dated:

The undersigned, pursuant to the provisions set forth in the attached Amended and Restated Stock Purchase Warrant (Certificate No. W-_____), hereby agrees to subscribe for the purchase of _____ shares of the Common Stock covered by such Amended and Restated Stock Purchase Warrant and makes payment herewith in full therefor at the price per share provided by such Amended and Restated Stock Purchase Warrant and requests that the certificates for such shares be issued in the name of, and delivered to, _____, whose address is _____.

Signature: _____

Name: _____

Address: _____

_____

_____

EXHIBIT 10.1

MEDICINOVA, INC.

2000 GENERAL STOCK INCENTIVE PLAN

(As Adopted and Effective September 26, 2000)

MediciNova, Inc.

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MEDICINOVA, INC.
2000 GENERAL STOCK INCENTIVE PLAN

(As Adopted and Effective September 26, 2000)

SECTION 1. PURPOSE.

The purpose of the Plan is to offer selected employees, directors and consultants an opportunity to acquire a proprietary interest in the success of the Company, or to increase such interest, to encourage such selected persons to remain in the employ of the Company and to attract new employees with outstanding qualifications. The Plan seeks to achieve this purpose by providing for Awards in the form of Restricted Shares and Options (which may constitute Incentive Stock Options or Nonstatutory Stock Options) as well as the direct award or sale of Shares of the Company's Common Stock. While this Plan is intended to satisfy Section 25102(o) of the California Corporations Code, awards may be granted under this Plan in reliance upon other state securities law exemptions and to the extent another exemption is relied upon, the terms of this Plan which are required only because of Section 25102(o), need not apply to the extent provided by the Committee in the Stock Award Agreement.

SECTION 2. DEFINITIONS.

(a) "Award" shall mean any award of an Option, Restricted Share or other right under the Plan.

(b) "Board of Directors" shall mean the Board of Directors of the Company, as constituted from time to time.

(c) "Change in Control" shall mean (i) the consummation of a merger or consolidation of the Company with or into another entity or any other corporate reorganization, if more than 50% of the combined voting power of the continuing or surviving entity's securities outstanding immediately after such merger, consolidation or other reorganization is owned by persons who were not stockholders of the Company immediately prior to such merger, consolidation or other reorganization; (ii) any transaction (other than an issuance of shares by the Company for cash) in or by means of which one or more persons acting in concert acquire, in the aggregate, more than 50% of the combined voting power of Company's outstanding equity securities; (iii) the sale, transfer or other disposition of all or substantially all of the Company's assets; or (iv) any other event determined by the Board to constitute a Change in Control for purposes of the Plan.

A transaction shall not constitute a Change in Control if: (a) its sole purpose is to change the state of the Company's incorporation; (b) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; or (c) it constitutes the Company's initial public offering of its securities.

(d) "Code" shall mean the Internal Revenue Code of 1986, as amended.

(e) "Committee" shall mean a committee of the Board of Directors which is authorized to administer the Plan under Section 3.

(f) "Common-Law Employee" shall mean an individual paid from W-2 Payroll of the Company or a Subsidiary. If, during any period, the Company (or Subsidiary, as applicable) has not treated an individual as a Common-Law Employee and, for that reason, has not paid such individual in a manner which results in the issuance of a Form W-2 and withheld taxes with respect to him or her, then such individual shall not be an eligible Employee for that period, even if any person, court of law or government agency determines, retroactively, that such individual is or was a Common-Law Employee during all or any portion of that period.

(g) "Company" shall mean MediciNova, Inc., a Delaware corporation.

(h) "Employee" shall mean (i) any individual who is a Common-Law Employee of the Company or of a Subsidiary, (ii) a member of the Board of Directors, including (without limitation) an Outside Director, or an affiliate of a member of the Board of Directors, (iii) a member of the board of directors of a Subsidiary or (iv) an independent contractor who performs services for the Company or a Subsidiary. Service as a member of the Board of Directors, a member of the board of directors of a Subsidiary or an independent contractor shall be considered employment for all purposes of the Plan except the second sentence of Section 4(a).

(i) "Exchange Act" shall mean the Securities and Exchange Act of 1934, as amended.

(j) "Exercise Price" shall mean the amount for which one Share may be purchased upon exercise of an Option, as specified by the Committee in the applicable Stock Option Agreement.

(k) "Fair Market Value" shall mean the market price of Shares, determined by the Committee as follows:

(i) If the Shares were traded over-the-counter on the date in question but were not traded on the Nasdaq Stock Market or the Nasdaq National Market System, then the Fair Market Value shall be equal to the mean between the last reported representative bid and asked prices quoted for such date by the principal automated inter-dealer quotation system on which the Shares are quoted or, if the Shares are not quoted on any such system, by the "Pink Sheets" published by the National Quotation Bureau, Inc.;

(ii) If the Shares were traded over-the-counter on the date in question and were traded on the Nasdaq Stock Market or the Nasdaq National Market System, then the Fair Market Value shall be equal to the last-transaction price quoted for such date by the Nasdaq Stock Market or the Nasdaq National Market;

(iii) If the Shares were traded on a stock exchange on the date in question, then the Fair Market Value shall be equal to the closing price reported by the applicable composite transactions report for such date; and

(iv) If none of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith on such basis as it deems appropriate.

In all cases, the determination of Fair Market Value by the Committee shall be conclusive and binding on all persons.

(l) "Incentive Stock Option" or "ISO" shall mean an employee incentive stock option described in Code section 422(b).

(m) "Nonstatutory Option" or "NSO" shall mean an employee stock option that is not an ISO.

(n) "Offeree" shall mean an individual to whom the Committee has offered the right to acquire Shares under the Plan (other than upon exercise of an Option).

(o) "Option" shall mean an Incentive Stock Option or Nonstatutory Option granted under the Plan and entitling the holder to purchase Shares.

(p) "Optionee" shall mean an individual or estate who holds an Option.

(q) "Outside Director" shall mean a member of the Board who is "a Non-Employee Director" as defined in Rule 16b-3 under the Exchange Act.

(r) "Participant" shall mean an individual or estate who holds an Award.

(s) "Plan" shall mean this MediciNova, Inc. 2000 General Stock Incentive Plan.

(t) "Purchase Price" shall mean the consideration for which one Share may be acquired under the Plan (other than upon exercise of an Option), as specified by the Committee.

(u) "Restricted Share" shall mean a Share sold or granted to an eligible Employee which is nontransferable and subject to substantial risk of forfeiture until restrictions lapse.

(v) "Service" shall mean service as an Employee.

(w) "Share" shall mean one share of Stock, as adjusted in accordance with Section 9 (if applicable).

(x) "Stock" shall mean the common stock of the Company.

(y) "Stock Award Agreement" shall mean the agreement between the Company and the recipient of a Restricted Share which contains the terms, conditions and restrictions pertaining to such Restricted Share.

(z) "Stock Option Agreement" shall mean the agreement between the Company and an Optionee which contains the terms, conditions and restrictions pertaining to his or her Option.

(aa) "Stock Purchase Agreement" shall mean the agreement between the Company and an Offeree who acquires Shares under the Plan which contains the terms, conditions and restrictions pertaining to the acquisition of such Shares.

(bb) "Subsidiary" shall mean any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Subsidiary on a date after the adoption of the Plan shall be considered a Subsidiary commencing as of such date.

(cc) "Total and Permanent Disability" shall mean that the Optionee is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment.

(dd) "W-2 Payroll" shall mean whatever mechanism or procedure that the Company or a Subsidiary utilizes to pay any individual which results in the issuance of Form W-2 to the individual. "W-2 Payroll" does not include any mechanism or procedure which results in the issuance of any form other than a Form W-2 to an individual, including, but not limited to, any Form 1099 which may be issued to an independent contractor, an agency employee or a consultant. Whether a mechanism or procedure qualifies as a "W-2 Payroll" shall be determined in the absolute discretion of the Company (or Subsidiary, as applicable), and the Company or Subsidiary determination shall be conclusive and binding on all persons.

SECTION 3. ADMINISTRATION.

(a) Committee Membership. The Plan shall be administered by the Committee appointed by the Board of Directors. In the event the Company's Shares become publicly traded, the Committee shall be comprised solely of two or more Outside Directors (although Committee functions may be delegated to officers to the extent the Awards relate to persons who are not subject to the reporting requirements of Section 16 of the Exchange Act). If no Committee has been appointed, the entire Board shall constitute the Committee.

(b) Committee Procedures. The Board of Directors shall designate one of the members of the Committee as chairperson. The Committee may hold meetings at such times and places as it shall determine. The acts of a majority of the Committee members present at meetings at which a quorum exists, or acts reduced to or approved in writing by all Committee members, shall be valid acts of the Committee.

(c) Committee Responsibilities. The Committee has and may exercise such power and authority as may be necessary or appropriate for the Committee to carry out its functions as described in the Plan. The Committee has authority in its discretion to determine eligible Employees to whom, and the time or times at which, Awards may be granted and the number

of Shares subject to each Award. Subject to the express provisions of the respective Stock Award Agreements (which need not be identical), the Committee has authority to prescribe the terms and conditions of each Award and to make all other determinations necessary or advisable for Plan administration. The Committee has authority to prescribe, amend and rescind rules and regulations relating to the Plan. All interpretations, determinations, and actions by the Committee will be final, conclusive and binding upon all persons.

(d) Committee Liability. No member of the Board or the Committee will be liable for any action or determination made in good faith by the Committee with respect to the Plan or any Award made under the Plan.

(e) Financial Reports. To the extent required by applicable law, and not less often than annually, the Company shall furnish to Offerees, Optionees and shareholders who have received Stock under the Plan its financial statements (including a balance sheet regarding the Company's financial condition and a statement of its results of operations), unless such Offerees, Optionees or shareholders have duties with the Company that assure them access to equivalent information. Such financial statements need not be audited.

SECTION 4. ELIGIBILITY.

(a) General Rule. Only Employees shall be eligible for designation as Participants by the Committee. In addition, only individuals who are employed as Common-Law Employees by the Company or a Subsidiary shall be eligible for the grant of ISOs.

(b) Ten-Percent Shareholders. An Employee who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding stock of the Company or any of its Subsidiaries shall not be eligible for designation as an Offeree or Optionee unless (i) the Exercise Price for an ISO (and a NSO to the extent required by applicable law) is at least one hundred ten percent (110%) of the Fair Market Value of a Share on the date of grant, (ii) the Purchase Price of Shares is at least one hundred percent (100%) of the Fair Market Value of a Share on the date of grant and (iii) in the case of an ISO, such ISO by its terms is not exercisable after the expiration of five years from the date of grant.

(c) Attribution Rules. For purposes of Subsection (b) above, in determining stock ownership, an Employee shall be deemed to own the stock owned, directly or indirectly, by or for his brothers, sisters, spouse, ancestors and lineal descendants. Stock owned, directly or indirectly, by or for a corporation, partnership, estate or trust shall be deemed to be owned proportionately by or for its shareholders, partners or beneficiaries. Stock with respect to which such Employee holds an Option shall not be counted.

(d) Outstanding Stock. For purposes of Subsection (b) above, "outstanding stock" shall include all stock actually issued and outstanding immediately after the grant. "Outstanding Stock" shall not include shares authorized for issuance under outstanding Options held by the Employee or by any other person.

SECTION 5. STOCK SUBJECT TO PLAN.

(a) Basic Limitation. Shares offered under the Plan shall be authorized but unissued Shares. Subject to Sections 5(b) and 9 of the Plan, the aggregate number of Shares which may be issued or transferred pursuant to an Award under the Plan shall not exceed 2,000,000 Shares.

The number of shares that may be issued or transferred during any 12-month period to any eligible Employee pursuant to an Award shall not exceed 600,000 Shares.

In any event, (i) the number of Shares which are subject to Awards or other rights outstanding at any time under the Plan shall not exceed the number of Shares which then remain available for issuance under the Plan; and (ii) to the extent an award is made in reliance upon the exemption available under Section 25102(o) of the California Corporations Code, the number of Shares which are subject to Awards or other rights outstanding at any time under the Plan or otherwise shall not exceed the limitation imposed by Section 260.140.45 of the Code of Regulations of the California Commissioner of Corporations. The Company, during the term of the Plan, shall at all times reserve and keep available sufficient Shares to satisfy the requirements of the Plan.

(b) Additional Shares. In the event that any outstanding Option or other right for any reason expires or is canceled or otherwise terminated, the Shares allocable to the unexercised portion of such Option or other right shall again be available for the purposes of the Plan. If a Restricted Share is forfeited before any dividends have been paid with respect to such Restricted Share, then such Restricted Share shall again become available for award under the Plan.

SECTION 6. TERMS AND CONDITIONS OF AWARDS OR SALES.

(a) Stock Purchase Agreement. Each award or sale of Shares under the Plan (other than upon exercise of an Option) shall be evidenced by a Stock Purchase Agreement between the Offeree and the Company. Such award or sale shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions which are not inconsistent with the Plan and which the Committee deems appropriate for inclusion in a Stock Purchase Agreement. The provisions of the various Stock Purchase Agreements entered into under the Plan need not be identical.

(b) Duration of Offers. Any right to acquire Shares under the Plan (other than an Option) shall automatically expire if not exercised by the Offeree within 30 days after the grant of such right was communicated to the Offeree by the Committee.

(c) Purchase Price. The Purchase Price of Shares to be offered under the Plan shall not be less than eighty-five percent (85%) of the Fair Market Value of a Share on the date of grant, except as otherwise provided in Section 4(b) (i.e., 100% for 10% shareholders). Subject to the preceding sentence, the Purchase Price shall be determined by the Committee in its sole discretion. The Purchase Price shall be payable in a form described in Subsection (d) below.

(d) Payment for Shares. The entire Purchase Price of Shares issued under the Plan shall be payable in lawful money of the United States of America at the time when such Shares are purchased, except as provided below. Notwithstanding any other provision of the Plan, Shares may, in the discretion of the Committee, be awarded under the Plan in consideration of Service rendered to the Company or a Subsidiary prior to the Award. Permissible forms of payment, in addition to cash, are:

(i) Surrender of Stock. To the extent that a Stock Purchase Agreement so provides, payment may be made all or in part with Shares which have already been owned by the Offeree or the Offeree's representative for any time period specified by the Committee and which are surrendered to the Company in good form for transfer. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan.

(ii) Promissory Notes. To the extent that a Stock Purchase Agreement so provides, payment may be made all or in part with a full recourse promissory note executed by the Offeree. The interest rate and other terms and conditions of such note shall be determined by the Committee. The Committee may require that the Offeree pledge his or her Shares to the Company for the purpose of securing the payment of such note. In no event shall the stock certificate(s) representing such Shares be released to the Offeree until such note is paid in full.

(iii) Cashless Exercise. To the extent that a Stock Purchase Agreement so provides and a public market for the Shares exists, payment may be made all or in part by delivery (on a form prescribed by the Committee) of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of the aggregate Exercise Price.

(iv) Other Forms of Payment. To the extent provided in the Stock Purchase Agreement, payment may be made in any other form that is consistent with applicable laws, regulations and rules, including payment for past services.

(e) Exercise of Awards on Termination of Service. Each Stock Award Agreement shall set forth the extent to which the recipient shall have the right to exercise the Award following termination of the recipient's Service with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all the Awards issued pursuant to the Plan, and may reflect distinctions based on the reasons for termination of employment.

SECTION 7. ADDITIONAL TERMS AND CONDITIONS OF RESTRICTED SHARES.

(a) Form and Amount of Award. Each Stock Award Agreement shall specify the number of Shares that are subject to the Award. Restricted Shares may be awarded in combination with NSOs and such an Award may provide that the Restricted Shares will be forfeited in the event that the related NSOs are exercised.

(b) Exercisability. Each Stock Award Agreement shall specify the conditions upon which Restricted Shares shall become vested, in full or in installments. To the extent required by applicable law, each Stock Award shall become exercisable no less rapidly than the rate of 20% per year for each of the first five years from the date of grant. Subject to the preceding sentence, the exercisability of any Stock Award shall be determined by the committee in its sole discretion.

(c) Effect of Change in Control. The Committee may determine at the time of making an Award or thereafter, that such Award shall become fully vested in the event that a Change in Control occurs with respect to the Company.

(d) Voting Rights. Holders of Restricted Shares awarded under the Plan shall have the same voting, dividend and other rights as the Company's other shareholders. A Stock Award Agreement, however, may require that the holders invest any cash dividends received in additional Restricted Shares. Such additional Restricted Shares shall be subject to the same conditions and restrictions as the Award with respect to which the dividends were paid. Such additional Restricted Shares shall not reduce the number of Shares available under Section 5.

SECTION 8. TERMS AND CONDITIONS OF OPTIONS.

(a) Stock Option Agreement. Each grant of an Option under the Plan shall be evidenced by a Stock Option Agreement between the Optionee and the Company. Such Options shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions which are not inconsistent with the Plan and which the Committee deems appropriate for inclusion in a Stock Option Agreement. The provisions of the various Stock Option Agreements entered into under the Plan need not be identical.

(b) Number of Shares. Each Stock Option Agreement shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with Section 9. The Stock Option Agreement shall also specify whether the Option is an ISO or a Nonstatutory Option.

(c) Exercise Price. Each Stock Option Agreement shall specify the Exercise Price. The Exercise Price of an ISO shall not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date of grant, except as otherwise provided in Section 4(b). To the extent required by applicable law and except as otherwise provided in Section 4(b), the Exercise Price of a Nonstatutory Option shall not be less than eighty-five percent (85%) of the Fair Market Value of a Share on the date of grant. Subject to the preceding two sentences, the Exercise Price under any Option shall be determined by the Committee in its sole discretion. The Exercise Price shall be payable in a form described in Subsection (h) below.

(d) Exercisability. Each Stock Option Agreement shall specify the date when all or any installment of the Option is to become exercisable. To the extent required by applicable law, an Option shall become exercisable no less rapidly than the rate of 20% per year for each of the first five years from the date of grant. Subject to the preceding sentence, the exercisability of any Option shall be determined by the Committee in its sole discretion.

(e) Effect of Change in Control. The Committee may determine, at the time of granting an Option or thereafter, that such Option shall become fully vested in the event that a Change in Control occurs with respect to the Company.

(f) Term. The Stock Option Agreement shall specify the term of the Option. The term shall not exceed ten years from the date of grant (or five (5) years, in the instance of an ISO for ten percent (10%) shareholders as provided in Section 4(b)). Subject to the preceding sentence, the Committee in its sole discretion shall determine when an Option is to expire.

(g) Exercise of Options on Termination of Service. Each Option shall set forth the extent to which the Optionee shall have the right to exercise the Option following termination of the Optionee's Service with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Options issued pursuant to the Plan, and may reflect distinctions based on the reasons for termination of employment. Notwithstanding the foregoing, to the extent required by applicable law each Option shall provide that the Optionee shall have the right to exercise the vested portion of any Option held at termination for at least thirty (30) days following termination of Service with the Company for any reason, and that the Optionee shall have the right to exercise the Option for at least six (6) months if the Optionee's Service terminates due to death or Disability.

(h) Payment of Option Shares. The entire Exercise Price of Shares issued under the Plan shall be payable in lawful money of the United States of America at the time when such Shares are purchased, except as provided below:

(i) Surrender of Stock. To the extent that a Stock Option Agreement so provides, payment may be made all or in part with Shares which have already been owned by the Optionee or the Optionee's representative for any time period specified by the Committee and which are surrendered to the Company in good form for transfer. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan.

(ii) Promissory Notes. To the extent that a Stock Option Agreement so provides, payment may be made all or in part with a full recourse promissory note executed by the Optionee. The interest rate and other terms and conditions of such note shall be determined by the Committee. The Committee may require that the Optionee pledge his or her Shares to the Company for the purpose of securing the payment of such note. In no event shall the stock certificate(s) representing such Shares be released to the Optionee until such note is paid in full.

(iii) Cashless Exercise. To the extent that a Stock Option Agreement so provides and a public market for the Shares exists, payment may be made all or in part by delivery (on a form prescribed by the Committee) of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of the aggregate Exercise Price.

(iv) Other Forms of Payment. To the extent provided in the Stock Option Agreement, payment may be made in any other form that is consistent with applicable laws, regulations and rules.

(i) No Rights as a Shareholder. An Optionee, or a transferee of an Optionee, shall have no rights as a shareholder with respect to any Shares covered by an Option until the date of the issuance of a stock certificate for such Shares.

(j) Modification, Extension and Assumption of Options. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding Options or may accept the cancellation of outstanding Options (whether granted by the Company or another issuer) in return for the grant of new Options for the same or a different number of Shares and at the same or a different Exercise Price or for other consideration.

SECTION 9. ADJUSTMENT OF SHARES.

(a) General. In the event of a subdivision of the outstanding Stock, a declaration of a dividend payable in Shares, a combination or consolidation of the outstanding Stock into a lesser number of Shares, a recapitalization, a reclassification or a similar occurrence, the Committee shall make appropriate adjustments in one or more of (i) the number of Shares available for future Awards under Section 5, (ii) the number of Shares covered by each outstanding Option or Stock Purchase Agreement or (iii) the Exercise Price or Purchase Price under each outstanding Option or Stock Purchase Agreement.

(b) Reorganizations. In the event that the Company is a party to a merger, consolidation or other reorganization, outstanding Options shall be subject to the agreement of merger or reorganization.

(c) Reservation of Rights. Except as provided in this Section 9, an Optionee or an Offeree shall have no rights by reason of (i) any subdivision or consolidation of shares of stock of any class, (ii) the payment of any dividend or (iii) any other increase or decrease in the number of shares of stock of any class. Any issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number, Exercise Price or Purchase Agreement of Shares subject to an Option or Stock Purchase Agreement. The grant of an Award pursuant to the Plan shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure, to merge or consolidate or to dissolve, liquidate, sell or transfer all or any part of its business or assets.

SECTION 10. WITHHOLDING TAXES.

(a) General. To the extent required by applicable federal, state, local or foreign law, a Participant or his or her successor shall make arrangements satisfactory to the Committee for the satisfaction of any withholding tax obligations that arise in connection with the Plan. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied.

(b) Share Withholding. The Committee may permit a Participant to satisfy all or part of his or her withholding or income tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that he or she previously acquired. Such Shares shall be valued at their Fair Market Value on the date when taxes otherwise would be withheld in cash. Any payment of taxes by assigning Shares to the Company may be subject to restrictions, including any restrictions required by rules of any federal or state regulatory body or other authority.

(c) Cashless Exercise/Pledge. The Committee may provide that if Company Shares are publicly traded at the time of exercise, arrangements may be made to meet the Optionee's withholding obligation by cashless exercise or pledge.

(d) Other Forms of Payment. The Committee may permit such other means of tax withholding as it deems appropriate.

SECTION 11. ASSIGNMENT OR TRANSFER OF AWARDS.

(a) General. An Award granted under the Plan shall not be anticipated, assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law, except as approved by the Committee. Notwithstanding the foregoing, ISOs may not be transferable. Also, notwithstanding the foregoing, while the Shares are subject to California Corporations Code § 25102(o), (i) Offerees and Optionees may not transfer their rights hereunder except by will, beneficiary designation or the laws of descent and distribution, and (ii) any rights of repurchase in favor of the Company shall take into account the provisions of Department of Corporations Regulation Section 260.140.41 or 260.140.42, as applicable.

(b) Trusts. Neither this Section 11 nor any other provision of the Plan shall preclude a Participant from transferring or assigning Restricted Shares to (i) the trustee of a trust that is revocable by such Participant alone, both at the time of the transfer or assignment and at all times thereafter prior to such Participant's death, or (ii) the trustee of any other trust to the extent approved by the Committee in writing. A transfer or assignment of Restricted Shares from such trustee to any other person than such Participant shall be permitted only to the extent approved in advance by the Committee in writing, and Restricted Shares held by such trustee shall be subject to all the conditions and restrictions set forth in the Plan and in the applicable Stock Award Agreement, as if such trustee were a party to such Agreement.

SECTION 12. LEGAL REQUIREMENTS.

Shares shall not be issued under the Plan unless the issuance and delivery of such Shares complies with (or is exempt from) all applicable requirements of law, including (without limitation) the Securities Act of 1933, as amended, the rules and regulations promulgated thereunder, state securities laws and regulations, and the regulations of any stock exchange on which the Company's securities may then be listed.

SECTION 13. NO EMPLOYMENT RIGHTS.

No provision of the Plan, nor any right or Option granted under the Plan, shall be construed to give any person any right to become, to be treated as, or to remain an Employee. The Company and its Subsidiaries reserve the right to terminate any person's Service at any time and for any reason.

SECTION 14. DURATION AND AMENDMENTS.

(a) Term of the Plan. The Plan, as set forth herein, shall become effective on the date of its adoption by the Board of Directors, subject to the approval of the Company's shareholders. In the event that the shareholders fail to approve the Plan within twelve (12) months after its adoption by the Board of Directors, any grants already made shall be null and void, and no additional grants shall be made after such date. The Plan shall terminate automatically ten (10) years after its adoption by the Board of Directors and may be terminated on any earlier date pursuant to Subsection (b) below.

(b) Right to Amend or Terminate the Plan. The Board of Directors may amend the Plan at any time and from time to time. Rights and obligations under any right or Option granted before amendment of the Plan shall not be impaired adversely by such amendment, except with consent of the person to whom the right or Option was granted. An amendment of the Plan shall be subject to the approval of the Company's shareholders only to the extent required by applicable laws, regulations or rules including the rules of any applicable exchange.

(c) Effect of Amendment or Termination. No Shares shall be issued or sold under the Plan after the termination thereof, except upon exercise of an Option granted prior to such termination. The termination of the Plan, or any amendment thereof, shall not affect any Shares previously issued or any Option previously granted under the Plan.

SECTION 15. EXECUTION.

To record the adoption of the Plan by the Company, the Board of Directors has caused its authorized officer to execute the same, to be effective as of September 26, 2000.

MEDICINOVA, INC.

By: /s/ TAKASHI KIYOIZUMI
Name: **Takashi Kiyoizumi**
Title: **Chief Executive Officer**

EXHIBIT 10.11

EMPLOYMENT AGREEMENT

THIS AGREEMENT is made effective as of 26th day of September, 2003 (hereinafter referred to as the "Effective Date"), by and between MEDICINOVA (hereinafter referred to as "MEDICINOVA"), a Delaware corporation, whose principal offices are located at 4370 La Jolla Village Drive, Suite 400, San Diego, CA 92122, U.S.A. and TAKASHI KIYOIZUMI, M.D., Ph.D., Sc.M., who resides at 17231 Holly Leaf Court, San Diego, CA 92127, U.S.A. (hereinafter referred to as "CEO").

WITNESSETH:

WHEREAS, MEDICINOVA desires to employ CEO and to secure for itself the experience, abilities and services of CEO in the capacity of President and Chief Executive Officer of MEDICINOVA upon the terms and conditions specified herein; and

WHEREAS, CEO desires to so provide his services to MEDICINOVA, upon the terms and conditions specified herein;

NOW, THEREFORE, the parties hereto intending to be legally bound, hereby agree as follows:

1. Employment

MEDICINOVA hereby offers employment to CEO, and CEO hereby accepts employment in MEDICINOVA on the terms and conditions set forth in this Agreement.

2. Employment Duties

(a) CEO's objective is the maximization of corporate assets.

(b) CEO's primary duties or tasks are as follows:

(1) Establishment of corporate identity;

(2) Drawing up and realization of a short-term, middle-term and long-term vision; and

(3) Initial Public Offering at the earliest possible time (hereinafter referred to as "IPO").

(c) CEO shall be accountable for the performance of all the strategic activities of MEDICINOVA including but not limited to the following issues:

(1) Planning

(2) Profitability

(3) Productivity

(4) Growth

(5) Recruiting

(6) Training

(7) Organization

(8) Finance

(9) Information

(10) Research

(11) Licensing

(12) Alliance

(d) Subject to the provisions of this section, CEO agrees to devote his entire business time, energy and skill to further the interests of MEDICINOVA during the performance of his employment hereunder. CEO shall not engage in any business activities other than activities set forth in Article 2(a), (b) and (c), on either a paid or unpaid basis, during the term of this Agreement hereunder without the prior consent of MEDICINOVA's Board of Directors, and any such outside activities approved by MEDICINOVA's Board of Directors shall not materially detract from nor impair CEO's ability to fulfill his obligations and responsibilities hereunder, with the exception that MEDICINOVA acknowledges that (i) CEO is a consultant to Yasuda Enterprise Development Venture Capital and (ii) CEO is a Visiting Professor at Nihon University Graduate School of Business, which requires travel to Tokyo for lectures from time to time unless such travel disturbs any of MEDICINOVA's business. MEDICINOVA shall not be obliged to support any cost relating to such travel; however, CEO shall be entitled to additional vacation of two (2) calendar weeks per annum relating thereto.

(e) CEO agrees to observe and comply with all rules, regulations, policies and practices adopted or instructed by MEDICINOVA's Board of Directors, either orally or in writing, both as they now exist and as they may be adopted or modified from time to time.

(f) CEO shall be based at 4370 La Jolla Village Drive, Suite 400, San Diego, CA 92122, U.S.A.

3. Term

The term of this Agreement shall be the term of the CEO's employment hereunder. This Agreement shall commence on the Effective Date and expire on the third anniversary of Effective Date (hereinafter referred to as "Second Term").

Unless CEO and MEDICINOVA agree, in writing, to extend this Agreement for additional three (3) years from the end of the Second Term, discussion of which agreement shall be planned to be commenced by six (6) months before the end of the Second Term, this Agreement shall expire at the end of the Second Term.

This Agreement may, however, be terminated pursuant to Article 5 of this Agreement.

4. Compensation and Benefits

In consideration of all services rendered by CEO to MEDICINOVA, MEDICINOVA hereby agrees to pay compensation and benefits to CEO for any and all services provided by CEO consisting of:

(a) Annual Base Salary

An annual base salary (before tax and other withholding) shall be paid to CEO in the amount of $316,663 per annum, payable in equal semi-monthly installments (hereinafter referred to as "Base Salary"). MEDICINOVA's Board of Directors shall review the Base Salary as of January 1 of each year during the term hereof, and MEDICINOVA's Board of Directors may, in its sole discretion, increase or decrease the Base Salary amount, taking into consideration any changes in the Consumer Price Index applicable to San Diego area during the immediately preceding year plus a merit increase if determined by MEDICINOVA's Board of Directors;

(b) Annual Bonus

CEO's annual bonus shall be determined in accordance with MEDICINOVA's annual Senior Executive Bonus Plan as approved by the Board of Directors or the Compensation Committee of the Board of Directors (hereinafter referred to as "Annual Bonus");

(c) Incentive Bonus

MEDICINOVA's Board of Directors may, in its sole discretion, determine to provide CEO with an incentive bonus;

(d) Stock Options

The CEO shall be eligible to receive options to purchase MEDICINOVA's common stock ("Common Stock"), under MEDICINOVA's 2000 Stock Option Plan, or such other option plans as may be adopted and in effect at any time during the term of this Agreement, as may be granted from time to time by the Board of Directors or a Compensation Committee of the Board of Directors;

(e) Retirement Plan

CEO shall be entitled to MEDICINOVA's Retirement Plan which is the combination of the 401(k) plan and MEDICINOVA's Matching Plan (a supplemental benefit to the 401(k) plan) with a 1 to 1 matching contribution rate for the aggregate of CEO's Base Salary and Annual Bonus (hereinafter referred to as "Annual Income"). ;

(f) Additional Insurance

MEDICINOVA shall use its best efforts to purchase for CEO at MEDICINOVA's expense additional insurance policies to cover $800,000 additional Life Insurance and $600,000 additional Accidental Death Insurance over and above the amounts normally provided by MEDICINOVA to its personnel, with beneficiaries to be designated by CEO;

(g) Other Benefits indicated in MEDICINOVA's Employee Handbook

Other benefits provided to other personnel of MEDICINOVA from time to time including, without limitation, life insurance, AD&D and medical, pharmaceutical, dental and vision benefits, as may be established or modified by MEDICINOVA from time to time, for so long as such benefits are made available to other personnel, pursuant to MEDICINOVA's Employee Handbook; and

(h) Vacation

Subject to the provisions of Section 1 (d) of this Agreement, CEO shall be, during the term of this Agreement, entitled to vacations of four (4) calendar weeks per annum on a prorated basis.

(i) Reimbursement of Expenses

MEDICINOVA shall reimburse the CEO for all normal, usual and necessary expenses incurred by the CEO in furtherance of the business and affairs of MEDICINOVA, including reasonable travel and entertainment, against receipt by the Corporation of appropriate vouchers or other proof of the CEO's expenditures and otherwise in accordance with such Expense Reimbursement Policy as may from time to time be adopted by the Board of Directors of the Corporation.

MEDICINOVA shall withhold all applicable federal, state and local taxes, social security and workers' compensation contributions and such other amounts as may be required by

law and any plans pursuant to which such compensation is generated or as agreed upon by the parties with respect to the compensation payable to the CEO pursuant to this Agreement.

5. Termination

(a) If during the term of this Agreement, CEO should be unable to perform his duties hereunder on account of incapacity, and such incapacity should continue for a period of more than thirty (30) working days, which may be non-consecutive, within any six (6)-month period, MEDICINOVA's Board of Directors shall thereafter have the right to terminate this Agreement, and his right to all compensation and benefits shall cease on the date of termination of this Agreement; provided, however, that CEO shall be entitled to receive the compensation and benefits pursuant to a prorated amount of Articles 4(a) Base Salary, 4(c) Incentive Bonus, 4(d) Stock Option, 4(e) Retirement Plan, 4(f) Additional Insurance, 4(g) Other Benefits indicated in MEDICINOVA's Employee Handbook, and 4(h) Vacation that shall have accrued prior to such date of termination.

(b) In the event of CEO's death during the term of this Agreement, all compensation and benefits under Article 4 shall cease on the day after the day on which such event occurs. The compensation and benefits pursuant to a prorated amount of Articles 4(a) Base Salary, 4(b) Annual Bonus, 4(c) Incentive Bonus, 4(d) Stock Option, 4(e) Retirement Plan, 4(f) Additional Insurance, 4(g) Other Benefits indicated in MEDICINOVA's Employee Handbook, and 4(h) Vacation owing at the time of CEO's death, which is not payable to a designated beneficiary, shall be paid to the representative of CEO's estate.

(c) In the event CEO voluntarily terminates this Agreement with causes other than CEO Just Cause as defined herein ("Without CEO Just Cause"), his rights to all compensation and benefits shall cease on the date of such termination of this Agreement; provided, however, that CEO shall be entitled to receive the compensation and benefits pursuant to a prorated amount of Articles 4(a) Base Salary, 4(b) Annual Bonus, 4(c) Incentive Bonus, 4(d) Stock Option, 4(e) Retirement Plan, 4(f) Additional Insurance, 4(g) Other Benefits indicated in MEDICINOVA's Employee Handbook, and 4(h) Vacation that shall have accrued prior to such date of termination. CEO shall provide MEDICINOVA with notice three (3) months prior to such voluntary termination.

(d) In the event that MEDICINOVA's Board of Directors should terminate this Agreement with causes other than Just Cause as defined herein ("Without Cause"), this Agreement shall terminate as of the date designated by MEDICINOVA. In the event such termination of this Agreement Without Cause occurs, CEO shall be entitled to receive the prorated compensation and benefits pursuant to Articles 4(a) Base Salary, 4(b) Annual Bonus, 4(c) Incentive Bonus, 4(e) Retirement Plan, 4(f) Additional Insurance, 4(g) Other Benefits indicated in MEDICINOVA's Employee Handbook, and 4(h) Vacation that shall have accrued prior to such date of termination and as a severance pay, shall be entitled to receive Base Salary pursuant to Article 4 plus average Annual Bonus for a period equal to the longer of (i) remainder of the term of this Agreement or (ii) twelve (12) months from such date of termination regardless of the status of CEO's employment status. In addition, any unvested installments of options held by CEO as of the termination date shall become immediately vested and exercisable in full. In addition, MEDICINOVA shall provide continuation of health benefits for a period equal to the longer of (A) a

remainder of the term of this Agreement or (B) twelve (12) months from such date of termination to the extent authorized by and consistent with 29 U.S.C. (S) 1161 et seq. (Commonly known as “COBRA”), as in effect on the date of termination unless CEO is receiving comparable benefits from a new employer.

(e) In the event that MEDICINOVA’s Board of Directors determines that this Agreement should be terminated for Just Cause, as defined herein, CEO’s right to all compensation and benefits shall cease as of the date of termination of this Agreement. In such event, CEO shall be entitled to the compensation and benefits pursuant to a prorated amount of Articles 4(a) Base Salary and 4(e) Retirement Plan that shall have accrued prior to such date of termination, and he shall not be entitled to any further cash or non-cash compensation or benefits pursuant to Article 4, or severance pay. For the purpose of this Agreement, termination for “Just Cause” shall mean (i) a termination due to (A) gross neglect or fault of the duties for which CEO is employed or (B) willful misconduct or omission in the performance of such duties, (ii) a termination due to CEO’s committing fraud, misappropriation or embezzlement in connection with his duties as an personnel of MEDICINOVA, (iii) a termination due to CEO’s insubordination, breach of his obligations under this Agreement, or (iv) a termination due to CEO’s committing any crime for which he is convicted or to which he pleads guilty or no contest and which, as determined by MEDICINOVA, constitutes a crime involving moral turpitude or results in actual or potential harm to MEDICINOVA, (v) a termination due to CEO’s absence from work without notice for three (3) or more days.

(f) In the event that CEO should terminate this Agreement with just cause as defined herein (“CEO Just Cause”), CEO shall be entitled to receive the compensation and benefits pursuant to a prorated amount of Article 4(a) Base Salary, 4(b) Annual Bonus, 4(c) Incentive Bonus, , 4(e) Retirement Plan, 4(f) Additional Insurance, 4(g) Other benefits indicated in MEDICINOVA’s Employee handbook, and 4(h) Vacation that shall have accrued prior to such date of termination, and as a severance pay, shall be entitled to receive Base Salary pursuant to Article 4 plus average Annual Bonus for a period equal to the longer of (a) the remainder of the term of this Agreement, or (b) twelve (12) months from such date of termination, regardless of the status of CEO’s employment status. In addition, any unvested installments of options held by CEO as of the termination date shall become immediately vested and exercisable in full. In addition, MEDICINOVA shall provide continuation of health benefits for a period equal to the longer of (a) the remainder of the term of this agreement, or (b) twelve (12) months from such date of termination to the extent authorized by and consistent with 29 U.S.C. (S) 1161 et seq. (Commonly known as “COBRA”), unless CEO is receiving comparable benefits from a new employer.

For the purpose of this Agreement, termination for “CEO Just Cause” shall mean termination due to (i) material breach by MEDICINOVA of any provision of this Agreement which is not cured by MEDICINOVA within forty-five (45) days of notice thereof from CEO or (ii) any action by MEDICINOVA to intentionally harm CEO or (iii) a Change in Control of MEDICINOVA (as defined below).

For purposes of this Agreement, a "Change in Control of MEDICINOVA" shall be deemed to have occurred upon any of the following events:

(i) The date on which shares of MEDICINOVA Common Stock are first purchased pursuant to a tender offer or exchange offer (other than such an offer by MEDICINOVA or any employee benefit plan of MEDICINOVA or any entity holding shares or other securities of MEDICINOVA for or pursuant to the terms of such plan), whether or not such offer is approved or opposed by MEDICINOVA and regardless of the number of shares purchased pursuant to such offer;

(ii) The date MEDICINOVA acquires knowledge that any person or group deemed a person under Section 13(d)-3 of the Securities Exchange Act of 1934 ("Exchange Act") (other than MEDICINOVA, any employee benefit plan of MEDICINOVA or any entity holding shares of Common Stock or other securities of MEDICINOVA for or pursuant to the terms of any such plan or any individual or entity or group or affiliate thereof which acquired its beneficial ownership interest prior to the date of this Agreement), in a transaction or series of transactions, has become the beneficial owner, directly or indirectly (with beneficial ownership determined as provided in Rule 13d-3, or any successor rule, under the Exchange Act), of securities of MEDICINOVA entitling the person or group to 50% or more of all votes (without consideration of the rights of any class or stock to elect directors by a separate class vote) to which all stockholders of MEDICINOVA would be entitled in the election of the Board of Directors were an election held on such date;

(iii) The date, during any period of two consecutive years, when individuals who at the beginning of such period constitute the Board of Directors of MEDICINOVA cease for any reason to constitute at least a majority thereof, unless the election, or the nomination for election by the stockholders of MEDICINOVA, of each new director was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of such period;

(iv) the date of approval by the stockholders of MEDICINOVA of an agreement (a "reorganization agreement") providing for:

(A) The merger or consolidation of MEDICINOVA with another corporation where the stockholders of MEDICINOVA, immediately prior to the merger or consolidation, do not beneficially own, immediately after the merger or consolidation, shares of the corporation issuing cash or securities in the merger or consolidation entitling such stockholders to 65% or more of all votes (without consideration of the rights of any class of stock to

elect directors by a separate class vote) to which all stockholders of such corporation would be entitled in the election of directors or where the members of the Board of Directors of MEDICINOVA, immediately prior to the merger or consolidation, do not, immediately after the merger or consolidation, constitute a majority of the Board of Directors of the corporation issuing cash or securities in the merger or consolidation; or

(B) The sale or other disposition of all or substantially all the assets of MEDICINOVA; or

(v) the occurrence of any of the events set forth in subsections (i) through (iv) by or on behalf of Tanabe Seiyaku Co., Ltd, a Japanese corporation ("Tanabe Japan") or its affiliate, Tanabe Holding America ("THA") which is the largest stockholder as of the date of this Agreement, in which case all references to MEDICINOVA set forth in such subsections shall be deemed to refer to Tanabe Japan or THA.

(g) Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that as a result of any payment or distribution by MEDICINOVA to or for the benefit of the CEO whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "Payment"), the CEO would be subject to the excise tax imposed by Section 49999 of the Internal Revenue Code (the "Code") or any interest or penalties are incurred by the CEO with respect to such excise tax (such excise tax, together with any such interest and penalties, are hereinafter collectively referred to as the "Excise Tax"), the CEO shall be entitled to promptly receive an additional payment (a "Gross-Up Payment") in an amount such that, after payment by the CEO of all taxes (including any interest or penalties imposed with respect to such taxes), including, without limitation, any income taxes and Excise Tax imposed upon the Gross-Up Payment, the CEO is in the same after-tax position as if no Excise Tax had been imposed upon the CEO with respect to the Payments. Notwithstanding the foregoing provisions of this Section, if it shall be determined that the CEO is entitled to a Gross-Up Payment, but that the CEO, after taking into account the Payments and the Gross-Up Payment, would not receive a net after-tax benefit of at least $50,000 (taking into account both income taxes and Excise Tax) as compared to the net after-tax proceeds to the CEO resulting from the elimination of the Gross-Up Payment and a reduction of the Payments, in the aggregate, to an amount (the "Reduced Amount") such that the receipt of Payments would not give rise to any Excise Tax, then no Gross-Up Payment shall be made to the CEO and the Payments, in the aggregate, shall be reduced to the Reduced Amount.

6. Confidential Information

(a) CEO acknowledges that during the term of this Agreement, CEO will have access to and become acquainted with MEDICINOVA's confidential records, secrets, and information, including without limitation, its manufacturing processes, formulae, research and development activities, product development, marketing activity, licensing activity, financial, personnel and other practices of MEDICINOVA and MEDICINOVA's

customers, licensees, licensors and affiliated entities (hereinafter referred to as the "Confidential Information"). CEO agrees that all such Confidential Information is and shall remain the sole and exclusive property of MEDICINOVA, regardless of whether or not CEO develops such Confidential Information during the term of this Agreement, and that CEO shall not use or disclose any such Confidential Information other than in the course of performing his duties pursuant to this Agreement. CEO further agrees that, upon termination of this Agreement, regardless of whether voluntary, involuntary or upon non-renewal, CEO shall not take or use any such Confidential Information, records or files of MEDICINOVA or any copies thereof, and that CEO shall promptly return to MEDICINOVA all such Confidential Information, records and files that CEO may have previously removed to assist him in performing his duties, as well as any copies thereof or notes with respect thereto then in CEO's custody or possession. CEO's obligations under this Article 6 shall survive any termination or expiration of this Agreement for three (3) years from the date of such termination or expiration of this Agreement.

(b) CEO shall disclose promptly to MEDICINOVA any and all ideas, inventions, discoveries, proprietary matters, and its equivalents (regardless of whether such are patentable, copyrightable) conceived or made by CEO, existent or contemplated, alone or with others, prior to or during the term of this Agreement and related, connected or pertinent to the business or activities of MEDICINOVA. CEO acknowledges that such ideas, inventions, discoveries, proprietary matters, and its equivalents are and shall be the property of MEDICINOVA and hereby assigns and agrees to assign all of CEO's interest therein to MEDICINOVA or its nominee. Whenever requested to do so by MEDICINOVA, CEO shall execute without charge to MEDICINOVA any and all applications, assignments, or other instruments which MEDICINOVA deems necessary to apply for and obtain copyrights, patents or other intellectual property rights in the United States or any other foreign country or to protect or otherwise confirm MEDICINOVA's interest and ownership in such ideas, inventions, discoveries, proprietary matters, and its equivalents. CEO shall otherwise assist MEDICINOVA in every way, at MEDICINOVA's reasonable expense, to obtain and enforce copyrights, patents and other intellectual property rights in the United States or any other foreign country, including testifying in any suit or other proceedings, involving any such copyrights, patents and other intellectual property rights. CEO further agrees that the obligations under Article 6(b) shall survive any termination or expiration of this Agreement for one year from the date of such termination or expiration of this Agreement. Under Section 2870 of the California Labor Code, CEO's obligation under this Article does not apply to an invention (i) for which no equipment, supplies, facility or the Confidential Information of MEDICINOVA was used and which was developed entirely on CEO's own time, (ii) which does not relate to the business of MEDICINOVA, (iii) which does not relate to MEDICINOVA's actual or demonstrably anticipated research or development and (iv) which does not result from any work performed by CEO for MEDICINOVA. If after the term of this Agreement, MEDICINOVA wishes to use CEO's services to assist MEDICINOVA in obtaining or defending any intellectual property rights obtained during this Agreement, MEDICINOVA and CEO shall negotiate in good faith the terms of a Consultant Agreement for this purpose.

(c) CEO acknowledges and agrees that the violation of Article 6(a) shall cause irreparable harm to MEDICINOVA, and that MEDICINOVA shall be entitled to specific performance of this Agreement or an injunction without proof of special damages,

together with the costs and reasonable attorneys' fees incurred by MEDICINOVA in enforcing its rights under Article 6(a).

7. Solicitation of CEOs

CEO shall be called upon to work closely with other personnel of MEDICINOVA in performing services under this Agreement. CEO shall not during the term of this Agreement, and for one year thereafter, solicit, scout or recruit any personnel of MEDICINOVA. In addition, all information about such personnel which becomes known to CEO during the course of this Agreement and which is not otherwise known to the public is Confidential Information of MEDICINOVA and shall not be used by CEO in soliciting, scouting or recruiting personnel of MEDICINOVA at any time during or after termination of this Agreement.

8. Conflicting Agreement

CEO hereby represents and warrants to MEDICINOVA that CEO's entering into this Agreement and the obligations and duties undertaken by him hereunder will not conflict with, violate or constitute a breach of the terms of any employment or other agreement to which he is a party and that he is not required to obtain the consent of any person, firm, corporation or other entity in order to enter into this Agreement.

9. Entire Agreement

This Agreement sets forth the entire agreement between the parties hereto and shall supersede and cancel any other and all prior agreements between the parties hereto, express or implied, relating to the subject matter hereof. CEO and MEDICINOVA further intend that this Agreement shall constitute the complete and exclusive statement of its terms and that no parol or extrinsic evidence whatsoever may be introduced in any proceeding involving this Agreement. No provisions or terms of this Agreement shall be changed, altered, modified or amended except in writing signed by CEO and a member of MEDICINOVA's Board of Directors.

10. Non-Waiver

The failure or refusal of either party to insist upon the strict performance of any provision of this Agreement or to exercise any right in any one or more instances or circumstances shall not be construed as a waiver or relinquishment of such provision or right, nor shall such failure or refusal be deemed a custom or practice contrary to such provision or right.

11. Non-Assignment

CEO shall have no right to assign to any third party any of the rights, nor to delegate any of the duties under this Agreement, and any assignment or attempted assignment of CEO's rights, and any delegation or attempted delegation of CEO's duties shall be null and void. In all other respects, this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, beneficiaries, personal representatives, successors, assigns, officers and directors. Subject to the provisions of Section 5 (f) of this Agreement, CEO agrees that if MEDICINOVA causes or has caused the creation of an affiliated corporation which will succeed MEDICINOVA, such corporation shall be substituted for MEDICINOVA as the employer of CEO, and such corporation shall succeed MEDICINOVA with respect to this Agreement in all respects.

12. Severability

If any article, section, paragraph, term or provision of this Agreement should be held or determined to be unenforceable, the balance of this Agreement shall nevertheless continue in full force and effect unaffected by such holding or determination. In addition, in any such event, the parties agree that it is their intention and agreement that any such article, section, paragraph, term or provision which is held or determined to be unenforceable as written, shall nonetheless be enforced and binding to the fullest extent permitted by law as though such article, section, paragraph, term or provision had been written in such a manner and to such an extent as to be enforceable under the circumstances.

13. Notice

All notices hereunder shall be in writing. Notices may be delivered personally, or by mail, postage prepaid, to the respective addresses first written above. Either party may designate a new address for purposes of this Agreement by notice to the other party.

14. Governing Law and Arbitration

(a) Governing Law and Arbitration - While MEDICINOVA may seek in a court of competent jurisdiction injunctive relief to enforce the provisions of Article 6 (a) (Confidential Information) of this Agreement, any claim (except with respect to the judicial remedy of injunction), arising out of or relating to this Agreement, the relationship created hereby, performance in connection herewith or the breach or termination or non-renewal hereof (including, but not limited to, claims arising under federal, state or local employment discrimination statutes), shall be settled solely by binding arbitration in California, and the judgment on the award may be entered in any court of competent jurisdiction. This Agreement shall be interpreted and enforced pursuant to and under the laws of the State of California.

(b) Rules of Arbitration - The arbitration shall be governed by the Employment Dispute Resolution Rules of the American Arbitration Association in effect at the time of the arbitration proceeding, except that the Expedited Procedures of the Employment Dispute Resolution Rules shall not be applicable, regardless of the amount in dispute.

15. Captions and Titles

Captions and titles have been used in this Agreement only for convenience, and shall in no way define, limit or describe the meaning of this Agreement or any part thereof.

16. Acknowledgment

CEO acknowledges that CEO has consulted with or have had the opportunity to consult with independent counsel of his own choice concerning this Agreement and have been advised to do so by MEDICINOVA, and that CEO has read and understood this Agreement, are fully aware of its legal effect, and have entered into it freely based on its own judgment.

IN WITNESS WHEREOF, the parties have signed this Agreement.

CEO

By: /s/ Takashi Kiyoizumi
Takashi Kiyoizumi, M.D., Ph.D., Sc.M.

MEDICINOVA, Inc.

By: /s/ Yuichi Iwaki
Yuichi Iwaki, M.D., Ph.D.
Chairman of the Board

EXECUTIVE EMPLOYMENT AGREEMENT

(Brian Anderson)

This EXECUTIVE EMPLOYMENT AGREEMENT (this "**Agreement**") is made as of April 26, 2004 (the "**Effective Date**") by and between MEDICINOVA, INC, a Delaware corporation ("**MediciNova**"), and Brian Anderson ("**Executive**"), with reference to the following facts:

A. The Board of Directors of MediciNova (the "**Board**") has determined that it would be in the best interests of MediciNova to enter into this Employment Agreement on the terms herein set forth.

B. Executive is willing to serve as an employee of MediciNova upon the terms and conditions herein set forth. In respect of such employment, Executive has also executed that certain Proprietary Information and Inventions Agreement of even date herewith (the "**Proprietary Information and Inventions Agreement**"), which is attached hereto as Exhibit A and incorporated herein by reference as though fully set forth herein.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, the parties agree as follows:

1. Definitions. For purposes of this Agreement, the following terms shall have their respective meanings:

1.1 "**Cause**" shall mean (as shall reasonably be determined by the Board of Directors of the MediciNova - the "**Board**"): (i) any intentional failure to perform the Executive's obligations, services or duties under this Agreement or any other agreement or arrangement between the Executive and the MediciNova regarding employment or consulting services to be rendered by the Executive to the MediciNova, other than an immaterial violation which is remedied upon reasonable notice; (ii) failure to achieve performance levels for the MediciNova consistent with the MediciNova's goals, as determined by the Board in good faith and following appropriate inquiry; (iii) any violation of MediciNova policy, other than an immaterial violation which is remedied upon reasonable notice; (iv) any willful neglect of the Executive's duties to the MediciNova or gross misconduct; (v) any failure to protect the MediciNova's trade secrets; or (vi) any commission of any crime or criminal offense involving moral turpitude.

1.2 "**Total and Permanent Disability**" shall have the meaning ascribed to such term in Section 22 of the Internal Revenue Code of 1986, as amended.

2. Duties. Subject to the terms and provisions of this Agreement, Executive is employed by MediciNova as an executive employee of MediciNova. Executive's specific position shall be as the Executive Vice President, Corporate Development of MediciNova; provided, however, that the Executive may be reassigned by the Board to another executive position with MediciNova (or another position of similar responsibility) at such time as the Board (excluding Executive) reasonably agrees upon another Chief Executive Officer. Executive covenants to perform Executive's employment duties in good faith. Executive shall at

all times during the performance of this Agreement strictly adhere to and obey any and all rules and regulations now in effect or as subsequently adopted and/or modified governing the conduct of MediciNova employees and/or executives (the "**Employment Policies**"). In the event of any conflict between the provisions of this Agreement and any of the Employment Policies, the provisions of this Agreement shall control. A default under any the Employment Policies, except to the extent necessary or appropriate to comply with the provisions of this Agreement, shall be a default under this Agreement.

3. Exclusive Services. Executive's entire business time, attention, energies, skills, learning and best efforts shall be devoted to the business of MediciNova; provided, however, that this Section 3 shall not be construed as preventing Executive from participating in social, civic or professional associations or engaging in passive outside investment activities which may require a limited portion of time and effort to manage, consistent with any Employment Policies and so long as such activities do not interfere with the performance of Executive's duties nor compete, in any way, with the products or services offered by or through MediciNova.

4. Term of Employment. The term of this Agreement shall continue until such time as the employment of Executive is terminated pursuant to Section 7 below; provided, however, that this Agreement shall automatically terminate upon the death or Total and Permanent Disability of Executive.

5. Compensation. For all services rendered by Executive to MediciNova, MediciNova shall pay/provide to Executive the following:

- base compensation in the amount of $250,000 per annum (the "**Base Compensation**");
- periodic bonuses determined within the sole discretion of the Board (or any committee of the Board which is appointed to consider matters relating to executive compensation) but with reference to amounts paid to other executives and/or employees of MediciNova;
- grants of equity-based compensation within the sole discretion of the Board (or any committee of the Board which is appointed to consider matters relative to equity-based compensation);
- such group medical and life insurance and participation in other benefit plans as shall be made available for executives of MediciNova (with amounts and levels of participation therein determined with reference to other executives and/or employees of MediciNova); and
- an annual amount of vacation days consistent with amounts available for other executives of MediciNova (but, in any event, no fewer than 10 days) (collectively, the "**Compensation Package**").

6. Adjustments. The amount of Base Compensation may be adjusted as of each anniversary of the Effective Date (beginning on the first anniversary) by an amount upon which the Board and Executive shall mutually and reasonably agree at or about that time.

Compensation under the Compensation Package shall be paid to Executive less required deductions for Social Security, withholding taxes and other authorized deductions and at times when executives of MediciNova normally receive their compensation.

7. Termination. The employment of Executive may be terminated at any time by:

7.1 Mutual agreement of MediciNova and Executive evidenced in writing;

7.2 Action of the Board without prior notice to Executive if the Board reasonably shall establish that (i) Executive is in material default in the performance of Executive's obligations, services or duties hereunder, or has materially breached any provision of this Agreement, or (ii) MediciNova otherwise has Cause to terminate Executive's employment (although the right of termination of Executive's employment under this Section 7.2 shall not be in limitation of any other right or remedy MediciNova may have under this Agreement or otherwise);

7.3 Upon the death or Total and Permanent Disability of Executive; or

7.4 Upon 90 days' written notice by either party to the other indicating the desire of the notifying party, in its sole discretion, to terminate the employment of Executive hereunder; provided, however, that the MediciNova may not provide any such notice until _____.

8. Compensation Upon Termination. In the event that the employment of Executive is terminated pursuant to Section 7 above, Executive shall be terminated without compensation other than for accrued salary and other accrued amounts; provided, however, that if such employment is terminated at MediciNova's option pursuant to Section 7.4 above, then Executive shall be entitled to such severance payment(s) as shall be provided for (if any) by the Employment Policies in effect at that time; and provided, further, that in lieu of the 90 days' notice provided by Section 7.4 above, MediciNova may provide Executive with an amount equal to one-fourth (1/4) of Executive's annual Base Compensation which shall be applicable at the time of Executive's termination of employment with MediciNova. Except as provided in the immediately preceding sentence (if applicable), Executive is entitled to no other compensation upon termination.

9. Option to Hire Executive as Consultant. Upon any termination of Executive's employment under this Agreement, either pursuant to Section 7 above or otherwise, MediciNova shall have the option (in MediciNova's discretion) to engage Executive as a consultant on a quarterly basis commencing on the effective date of termination of Executive's employment (the "**Termination Date**") and continuing for a period of up to one (1) year following the Termination Date (or, if longer, the period terminating on the date which is three (3) years after the Effective Date). MediciNova's rights under this Section 9 shall lapse if MediciNova has not provided Executive with written notice of MediciNova's intent to exercise its rights hereunder prior to the later of (i) the Termination Date (e.g., in the event of a voluntary termination under Section 7.4 above) and (ii) 30 days following notice of such termination (e.g., in the event of an involuntary termination under Section 7.2 above). As a consultant, Executive's duties shall include devoting attention to those matters reasonably requested by the Board but which will not interfere (as to time required) with the opportunity to maintain other employment consistent with

this Section 9. During any period for which Executive is engaged to perform consulting services for MediciNova under this Section 9, Executive agrees that Executive shall not:

9.1 Carry on directly or indirectly, whether or not for compensation (as proprietor, partner, stockholder (except that a less than one percent (1%) ownership in a public corporation shall be permitted), officer, director, agent, employee, consultant, trustee, affiliate or otherwise), any business which is, or as a result of Executive's engagement or participation would become, competitive with or adverse to the business of MediciNova as it exists as of the Termination Date;

9.2 Permit Executive's name to be used by any business competitive in any respect with the business of MediciNova as it exists as of the Termination Date;

9.3 Solicit or divert, or attempt to call on, solicit or divert, any customer of MediciNova with whom Executive became acquainted during Executive's employment or affiliation with MediciNova, either for Executive or for any other person, firm or corporation; or

9.4 Induce or attempt to induce any person who is an employee, agent or consultant of MediciNova to leave the employ of MediciNova.

Without limiting the other provisions of this Agreement, (i) Executive acknowledges and agrees that it is impossible to measure in money the damages which will befall the MediciNova by reason of Executive's failure to perform any of the obligations set forth in this Section 9, (ii) Executive acknowledges that MediciNova shall be entitled to enforce Executive's obligations under this Section 9 by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief, (iii) Executive agrees (to the maximum extent permitted by law) to have the provisions of this Section 9 specifically enforced against Executive by any court of equity and (iv) Executive consents to the entry of injunctive relief against Executive enjoining or restraining any violation or threatened violation of the provisions of this Section 9.

10. Compensation for Consulting Services. For each quarter (i.e., three-month period) that Executive provides consulting services to MediciNova pursuant to the option of MediciNova contained in Section 9 above, MediciNova shall pay Executive a sum equal to fifteen percent (15%) of Executive's annual Base Compensation which shall be applicable at the time of Executive's termination of employment with MediciNova (prorated for any period of less than a quarter). The parties expressly agree that when Executive is performing consulting services for MediciNova, Executive is acting as an independent contractor. Therefore, Executive shall be solely liable for Social Security and income taxes that result from Executive's compensation as a consultant. In addition, Executive shall not be entitled to any other benefits including, without limitation, such group medical, life and disability insurance and other benefits as may be provided to employees and/or executives of MediciNova.

11. Dispute Resolution Procedure. Any dispute arising out of or related to the employment relationship created hereby, including the termination of that relationship and any allegations of unfair or discriminatory treatment arising under state or federal law or otherwise, to the maximum extent permitted by law, shall be resolved by final and binding arbitration, except where the law specifically forbids the use of arbitration as a final and binding remedy, or

where section (d) below specifically allows a different remedy. The following dispute resolution procedure shall apply:

11.1 The party claiming to be aggrieved shall furnish to the other party a written statement of the grievance identifying any witnesses or documents that support the grievance and the relief requested or proposed.

11.2 The responding party shall furnish a statement of the relief, if any, that it is willing to provide, and the witnesses or documents that support its position as to the appropriate action. The parties can mutually agree to waive this step. If the matter is not resolved at this step, the parties shall submit the dispute to non-binding mediation before a mediator to be jointly selected by the parties. MediciNova will pay the cost of the mediation.

11.3 If the mediation does not produce a resolution of the dispute, the parties agree that the dispute shall be resolved by final and binding arbitration. The parties shall attempt to agree to the identity of an arbitrator, and, if they are unable to do so, they will obtain a list of arbitrators from the Federal Mediation and Conciliation Service and select an arbitrator by striking names from that list. The arbitrator shall have the authority to determine whether the conduct complained of in subsection (a) of this section violates the rights of the complaining party and, if so, to grant any relief authorized by law, subject to the exclusions of subsection (d) below. The arbitrator shall not have the authority to modify, change or refuse to enforce the terms of any employment agreement between the parties. In addition, the arbitrator shall not have the authority to require MediciNova to change any lawful policy or benefit plan. The hearing shall be transcribed. MediciNova shall bear the costs of the arbitration if Executive prevails. If MediciNova prevails, Executive will pay half the cost of the arbitration or $500, whichever is less. Each party shall be responsible for paying its own attorneys fees.

Arbitration shall be the exclusive final remedy for any dispute between the parties, to the maximum extent permitted by law, including but not limited to disputes involving claims for discrimination or harassment (such as claims under the Fair Employment and Housing Act, Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, or the Age Discrimination in Employment Act), wrongful termination, breach of contract, breach of public policy, physical or mental harm or distress or any other disputes, and the parties agree that no dispute shall be submitted to arbitration where the party claiming to be aggrieved has not complied with the preliminary steps provided for in subsections (a) and (b) above.

The parties agree that the arbitration award shall be enforceable in any court having jurisdiction to enforce this Agreement, so long as the arbitrator's findings of fact are supported by substantial evidence on the whole and the arbitrator has not made errors of law; provided, however, that either party may bring an action in a court of competent jurisdiction regarding or related to matters involving MediciNova's confidential, proprietary or trade secret information, or regarding or related to inventions that Executive may claim to have developed prior to joining MediciNova or after joining MediciNova, pursuant to California Labor Code 2870. The parties further agree that, for violations of Executive's confidentiality, proprietary information or trade secret obligations which the parties have elected to submit to arbitration, MediciNova retains the right to seek preliminary injunctive relief in court in order to preserve the status quo or prevent irreparable injury before the matter can be heard in arbitration.

11.4 MediciNova reserves the right to modify, change or cancel this provision upon 30 days written notice. However, such cancellation shall not affect matters which have already been submitted to arbitration.

12. Confidentiality and Inventions. Executive recognizes that MediciNova has and shall continue to have and develop information, knowledge and rights regarding inventions, confidential information, products, services, future plans, business affairs, processes, trade secrets, technical matters, customer lists, experimental designs and items of intellectual property. Executive hereby confirms and ratifies the Proprietary Information and Inventions Agreement (which is incorporated herein by reference) and agrees to execute and deliver to MediciNova any other similar agreement(s) presented to Executive by MediciNova from time to time.

13. Section Headings. The section headings or captions in this Agreement are for convenience of reference only and do not form a part hereof, and do not in any way modify, interpret or construe the intent of the parties or affect any of the provisions of this Agreement.

14. Survival. The obligations and rights imposed upon the parties hereto by the provisions of this Agreement which relate to acts or events subsequent to the termination of this Agreement shall survive the termination of this Agreement and shall remain fully effective thereafter.

15. Severability. Should any one or more of the provisions of this Agreement or of any agreement entered into pursuant to this Agreement be determined to be illegal or unenforceable in any relevant jurisdiction, then such illegal or unenforceable provision shall be modified by the proper court, if possible, but only to the extent necessary to make such provision enforceable, and such modified provision and all other provisions of this Agreement and of each other agreement entered into pursuant to this Agreement shall be given effect separately from the provision or portion thereof determined to be illegal or unenforceable and shall not be affected thereby; provided, however, that any such modification shall apply only with respect to the operation of this Agreement in the particular jurisdiction in which such determination of illegality or unenforceability is made.

16. Waiver. The failure of either party to enforce any provision of this Agreement shall not be construed as a waiver of any such provision, nor prevent such party thereafter from enforcing such provision or any other provision of this Agreement. The rights granted both parties herein are cumulative and the election of one shall not constitute a waiver of such party's right to assert all other legal remedies available under the circumstances.

17. Parties in Interest. Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the parties hereto and the successors, assigns and affiliates of MediciNova, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any third person to any party to this Agreement, nor shall any provision give any third person any right of subrogation or action over or against any party to this Agreement.

18. Assignment. MediciNova may, in its sole discretion, assign its rights and obligations, in whole or in part, to any parent, subsidiary or affiliate of MediciNova. This Agreement shall

be binding upon the heirs, executors, successors and assigns of Executive. This Agreement contemplates the rendition of personal services by Executive and Executive may not assign this Agreement or delegate Executive's responsibilities hereunder.

19. Entire Agreement. Except for the Proprietary Information and Inventions Agreement and one or more similar agreements between MediciNova and Executive as may exist from time to time, this Agreement contains the entire agreement of the parties with respect to the subject matter hereof and no representation, inducement, promise or agreement, oral or otherwise, between the parties not embodied herein shall be of any force or effect. No modification, termination or attempted waiver shall be valid unless in writing and signed by the party against whom or which such modification, termination or waiver is sought to be enforced.

20. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

MediciNova:
MediciNova, Inc.,
a Delaware corporation

By: /s/ Takashi Kiyoizumi
Name: Takashi Kiyoizumi
Title: President

Executive:

By: /s/ Brian Anderson
Name: Brian Anderson

EXHIBIT A

[attached]

PROPRIETARY INFORMATION AND INVENTIONS AGREEMENT
(Brian Anderson)

MediciNova, Inc.
4350 La Jolla Village Drive, Suite 950
San Diego, California 92122

Ladies and Gentlemen:

I recognize that MediciNova, Inc., a Delaware corporation ("**MediciNova**"), possesses a body of existing technology and intellectual property rights and is engaged in a continuous program of research, development and production with respect to its business (present and future).

I understand that:

A. As part of my employment by MediciNova (with the term "**employment**", as used herein, to include any consulting relationship), I am expected to make new contributions and inventions of value to MediciNova.

B. I understand that my employment creates a relationship of confidence and trust between me and MediciNova and that my position places me in a unique position of access to the proprietary technology, trade secrets and research, development and business information:

(1) applicable to the business of MediciNova; or

(2) applicable to the business of any client, partner or customer of MediciNova,

which may be made known to me by MediciNova or by any client, partner or customer of MediciNova, or learned by me during the period of my employment.

C. MediciNova possesses and will continue to possess information that has been or will be created, discovered or developed, or has or will otherwise become known to MediciNova (including, without limitation, information created, discovered, developed or made known by or to me during the period of or arising out of my employment by MediciNova), and/or in which property rights have been or will be assigned or otherwise conveyed to MediciNova, which information has commercial value in the business in which MediciNova is engaged. All of the aforementioned information is hereinafter called "**Confidential Information**." By way of illustration, but not limitation, Confidential Information includes all data, compilations, blueprints, plans, audio and/or video recordings and/or devices, information on computer disks, software, tapes, printouts and other printed, typewritten or handwritten documents, specifications, strategies, systems, schemas, methods (including delivery, storage, receipt, transmission, presentation and manufacture of audio, video, informational or other data or content), business and marketing development plans, customer lists, research projections, processes, techniques, designs, sequences, components, programs, technology, ideas, know-how, improvements, inventions (whether or not patentable or copyrightable), information about operations and

maintenance, trade secrets, formulae, models, patent disclosures and any other information concerning the actual or anticipated business, research or development of MediciNova or its actual or potential customers or partners or which is or has been generated or received in confidence by or for MediciNova by or from any person; and all tangible and intangible embodiments thereof of any kind whatsoever including, where appropriate and without limitation, all compositions, machinery, apparatus, records, reports, drawings, copyright applications, patent applications, documents and samples, prototypes, models, products and the like.

In consideration of my employment or continued employment, as the case may be, and the compensation received by me from MediciNova from time to time, I hereby agree as follows:

1. All Confidential Information shall be the sole property of MediciNova and its assigns, and MediciNova and its assigns shall be the sole owner of all patents, copyrights and other rights in connection therewith. I hereby assign to MediciNova any rights I may have or acquire in all Confidential Information. At all times during my employment by MediciNova and at all times after termination of such employment, I will keep in confidence and trust all Confidential Information, and I will not disclose, sell, use, lecture upon or publish any Confidential Information or anything relating to it without the prior written consent of MediciNova, except as may be necessary in the ordinary course of performing my duties as an employee of (or consultant to) MediciNova.

2. Without limiting the terms of my employment with MediciNova, I agree that during the period of my employment by MediciNova I will not engage in any employment or activity in any business that is directly or indirectly competitive with MediciNova.

3. All documents, data, records, apparatus, equipment, sequences, components, programs and other physical property, whether or not pertaining to Confidential Information, furnished to me by MediciNova or produced by myself or others in connection with my employment shall be and remain the sole property of MediciNova and shall be returned promptly to MediciNova as and when requested by MediciNova. Should MediciNova not so request, I shall return and deliver all such property upon termination of my employment by me or by MediciNova for any reason ("**Termination**") and I will not take with me any such property, any reproduction of such property or any materials or products derived from such property.

4. I shall promptly disclose any outside activities or interests, including any ownership or participation in the development of prior inventions, that conflict or may conflict with the interests of MediciNova. I understand that I am required to make such disclosures promptly if the activity or interest is related, either directly or indirectly, to (i) an area of research, development, service, product or product line of MediciNova, (ii) a manufacturing, development or research methodology or process of MediciNova or (iii) any activity that I may be involved with on behalf of MediciNova.

5. I shall promptly disclose to MediciNova, or any persons designated by it, all improvements, inventions, formulae, processes, programs, techniques, know-how and data, whether or not patentable or copyrightable, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with MediciNova which are related to or useful in the business of MediciNova, or result from tasks assigned me by MediciNova, or result from use of premises owned, leased or contracted for by MediciNova (all said improvements, inventions, formulae, processes, techniques, know-how and data shall be collectively hereinafter called "**Inventions**"). Such disclosure shall continue for one year after

Termination with respect to anything that would be an Invention if made, conceived, reduced to practice or learned prior to Termination.

6. I agree that all Inventions shall be the sole property of MediciNova and its assigns, and MediciNova and its assigns shall be the sole owner of all patents, copyrights and other rights in connection therewith and all Confidential Information with respect thereto. I hereby assign to MediciNova any and all rights I may have or acquire in all Inventions, including all rights that may be known as or referred to as "**moral rights**." I further agree as to all Inventions to assist MediciNova in every proper way (but at MediciNova's expense) to obtain and from time to time enforce patents and copyrights on the Inventions in any and all countries, and to that end I will execute all documents for use in applying for and obtaining such patents and copyrights thereon and enforcing the same, as MediciNova may desire, together with any assignments thereof to MediciNova or persons designated by it. My obligation to assist MediciNova in obtaining and enforcing patents and copyrights for the Inventions in any and all countries shall continue beyond Termination, but MediciNova shall compensate me at a reasonable rate after Termination for time actually spent by me at MediciNova's request on such assistance. In the event that MediciNova is unable for any reason whatsoever to secure my signature to any lawful and necessary document required to apply for or execute any patent or copyright application with respect to Inventions (including renewals, extension, continuations, divisions or continuations in part thereof), I hereby irrevocably designate and appoint MediciNova and its duly authorized officers and agents, as my agents and attorneys-in-fact to act for and in my behalf and instead of me, to execute and file any such application and to do all other lawfully permitted acts to further the prosecution and issuance of patents or copyrights thereon with the same legal force and effect as if executed by me.

7. As a matter of record I have identified beneath by signature hereto a complete list of all inventions or improvements relevant to the subject matter of my employment by MediciNova which have been made or conceived or first reduced to practice by me alone or jointly with others prior to my employment by MediciNova (**"Prior Inventions"**) which I desire to remove from the operation of this Agreement; and I covenant that such list is complete. If no such list is identified, I represent that I have made no such Prior Inventions at the time of the commencement of my employment by MediciNova. Notwithstanding the foregoing, and without limiting the other provisions of this Agreement, I agree that (i) any improvements or new inventions to the item(s) so identified on such list (if any) shall be treated as Inventions for purposes of this Agreement if the provisions of Section 5 above are otherwise applicable and (ii) if, in the course of my employment with MediciNova, I incorporate a Prior Invention into a MediciNova product, process, application, machine or invention, the MediciNova is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license (with rights to sublicense through multiple tiers of sublicensees) to make, have made, modify, use and sell such Prior Invention. Notwithstanding the foregoing, I agree that I will not incorporate, or permit to be incorporated, Prior Inventions in any MediciNova product, process, application, machine or invention without MediciNova's prior written consent.

8. I represent that my performance of all the terms of this Agreement and that my employment by MediciNova does not and will not breach or constitute an event of default under any agreement (i) obligating me to keep in confidence proprietary information acquired by me in confidence or in trust prior to, or at any point throughout, my employment by MediciNova, (ii) obligating me to assign to or protect for the benefit of any third party any proprietary information

or any improvement, invention, formulae, process, program, technique, know-how or data or (iii) that is designed in any way to limit my employment or activity in any business in which I may compete, directly or indirectly, with any other business, or which might by application have such an effect. I have not entered into, and I agree that I will not enter into, any agreement (either written or oral) in conflict herewith.

9. I understand, acknowledge and agree that, as part of the consideration for my employment or continued employment by MediciNova, I have not brought and will not bring with me to MediciNova or use in the performance of my responsibilities at or for MediciNova any equipment, supplies, facility or trade secret or other proprietary information of any former employer which are not generally available to the public, unless I have obtained (and provide herewith to MediciNova a copy of) written authorization for their possession and use.

10. I also understand that, in my employment by MediciNova, I am not to breach any obligation of confidentiality that I have to others, and I agree that I shall fulfill all such obligations during my employment by MediciNova. A copy of any document reflecting any such obligation, or a description thereof if no document is available, is provided herewith to MediciNova.

11. I agree that during the term of my employment with MediciNova and for a period of twelve (12) months after Termination, I will not directly or indirectly: (i) induce or attempt to induce any employee or consultant of MediciNova to leave the employ of MediciNova or to otherwise end such employee's or consultant's relationships with MediciNova, or (ii) other than on behalf of MediciNova, induce or attempt to induce any other person to terminate a relationship with MediciNova.

12. I acknowledge that, due to the uniqueness of my relationship with MediciNova, MediciNova would not have an adequate remedy at law for money damages in the event that this Agreement is not fully performed in accordance with its terms. I agree that in addition to any other rights and remedies available to MediciNova for any breach by me of my obligations hereunder, MediciNova shall be entitled to enforcement of my obligations hereunder by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief.

13. If any provision of this Agreement shall be declared invalid, illegal or unenforceable, such provision shall be severed and all remaining provisions shall continue in full force and effect.

14. If applicable, this Agreement does not apply to inventions which qualify fully for protection under Section 2870 of the California Labor Code (which, if applicable, could apply to ideas or inventions for which no equipment, supplies, facility or trade secret information of MediciNova were used and which were developed entirely on my own time, and (1) which do not relate at the time of conception or reduction to practice of the invention (a) to the actual business of MediciNova, or (b) to MediciNova's actual or demonstrably anticipated research or development, or (2) which do not result from any work performed by me for MediciNova). Notwithstanding the foregoing, I shall disclose in confidence to MediciNova any invention in order to permit MediciNova to make a determination as to compliance by me with the terms and conditions of this Agreement.

15. This Agreement shall be effective as of the first day of my employment by MediciNova. The term "**employment**" and the term or duration of my employment, as used herein and for purposes of this Agreement, shall include, without limitation, any consulting relationship between myself and MediciNova (including, if applicable, any such relationship which may follow the termination of my status as an employee of MediciNova or which may precede my status as an employee of MediciNova). Accordingly, notwithstanding any other provision of this Agreement to the contrary (and without limitation), a "**Termination**" shall not be deemed to have occurred if a consulting relationship persists following the termination of my status as an employee of MediciNova (if applicable).

16. The term MediciNova, as used herein, shall include any subsidiary or affiliate of MediciNova.

17. This Agreement shall be binding upon me, my heirs, executors, assigns and administrators and shall inure to the benefit of MediciNova, its successors and assigns.

18. This Agreement shall be governed by and construed in accordance with the internal laws of the State of California, without regard to the conflicts of law principles thereof.

Dated: April 26, 2004

/s/ Brian Anderson
Name: Brian Anderson

Prior Inventions: NONE.

Accepted and Agreed to
This 26th day of April, 2004.

MediciNova, Inc.

By: /s/ Takashi Kiyoizumi
Name: Takashi Kiyoizumi
Title: President

EXECUTIVE EMPLOYMENT AGREEMENT

(Richard E. Gammans, Ph.D.)

This EXECUTIVE EMPLOYMENT AGREEMENT (this "**Agreement**") is made as of June 14, 2004 (the "**Effective Date**") by and between MEDICINOVA, INC, a Delaware corporation ("**MediciNova**"), and Richard E. Gammans, Ph.D. ("**Executive**"), with reference to the following facts:

A. The Board of Directors of MediciNova (the "**Board**") has determined that it would be in the best interests of MediciNova to enter into this Employment Agreement on the terms herein set forth.

B. Executive is willing to serve as an employee of MediciNova upon the terms and conditions herein set forth. In respect of such employment, Executive has also executed that certain Proprietary Information and Inventions Agreement of even date herewith (the "**Proprietary Information and Inventions Agreement**"), which is attached hereto as Exhibit A and incorporated herein by reference as though fully set forth herein.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, the parties agree as follows:

1. Definitions. For purposes of this Agreement, the following terms shall have their respective meanings:

1.1 "**Cause**" shall mean (as shall reasonably be determined by the Board of Directors of the MediciNova - the "**Board**"): (i) any intentional failure to perform the Executive's obligations, services or duties under this Agreement or any other agreement or arrangement between the Executive and the MediciNova regarding employment or consulting services to be rendered by the Executive to the MediciNova, other than an immaterial violation which is remedied upon reasonable notice; (ii) failure to achieve performance levels for the MediciNova consistent with the MediciNova's goals, as determined by the Board in good faith and following appropriate inquiry; (iii) any violation of MediciNova policy, other than an immaterial violation which is remedied upon reasonable notice; (iv) any willful neglect of the Executive's duties to the MediciNova or gross misconduct; (v) any failure to protect the MediciNova's trade secrets; or (vi) any commission of any crime or criminal offense involving moral turpitude.

1.2 "**Total and Permanent Disability**" shall have the meaning ascribed to such term in Section 22 of the Internal Revenue Code of 1986, as amended.

2. Duties. Subject to the terms and provisions of this Agreement, Executive is employed by MediciNova as an executive employee of MediciNova. Executive's specific position shall be as the Executive Vice President, Clinical Research of MediciNova; provided, however, that the Executive may be reassigned by the Board to another executive position with MediciNova (or another position of similar responsibility) at such time as the Board (excluding Executive) reasonably agrees upon another Chief Executive Officer. Executive covenants to perform Executive's employment duties in good faith. Executive shall at all times during the

performance of this Agreement strictly adhere to and obey any and all rules and regulations now in effect or as subsequently adopted and/or modified governing the conduct of MediciNova employees and/or executives (the "**Employment Policies**"). In the event of any conflict between the provisions of this Agreement and any of the Employment Policies, the provisions of this Agreement shall control. A default under any the Employment Policies, except to the extent necessary or appropriate to comply with the provisions of this Agreement, shall be a default under this Agreement.

3. Exclusive Services. Executive's entire business time, attention, energies, skills, learning and best efforts shall be devoted to the business of MediciNova; provided, however, that this Section 3 shall not be construed as preventing Executive from participating in social, civic or professional associations or engaging in passive outside investment activities which may require a limited portion of time and effort to manage, consistent with any Employment Policies and so long as such activities do not interfere with the performance of Executive's duties nor compete, in any way, with the products or services offered by or through MediciNova.

4. Term of Employment. The term of this Agreement shall continue until such time as the employment of Executive is terminated pursuant to Section 7 below; provided, however, that this Agreement shall automatically terminate upon the death or Total and Permanent Disability of Executive.

5. Compensation. For all services rendered by Executive to MediciNova, MediciNova shall pay/provide to Executive the following:

- base compensation in the amount of $239,000 per annum (the "**Base Compensation**");
- periodic bonuses determined within the sole discretion of the Board (or any committee of the Board which is appointed to consider matters relating to executive compensation) but with reference to amounts paid to other executives and/or employees of MediciNova;
- grants of equity-based compensation within the sole discretion of the Board (or any committee of the Board which is appointed to consider matters relative to equity-based compensation);
- such group medical and life insurance and participation in other benefit plans as shall be made available for executives of MediciNova (with amounts and levels of participation therein determined with reference to other executives and/or employees of MediciNova); and
- an annual amount of vacation days consistent with amounts available for other executives of MediciNova (but, in any event, no fewer than 10 days) (collectively, the "**Compensation Package**").

6. Adjustments. The amount of Base Compensation may be adjusted as of each anniversary of the Effective Date (beginning on the first anniversary) by an amount upon which the Board and Executive shall mutually and reasonably agree at or about that time.

Compensation under the Compensation Package shall be paid to Executive less required deductions for Social Security, withholding taxes and other authorized deductions and at times when executives of MediciNova normally receive their compensation.

7. Termination. The employment of Executive may be terminated at any time by:

7.1 Mutual agreement of MediciNova and Executive evidenced in writing;

7.2 Action of the Board without prior notice to Executive if the Board reasonably shall establish that (i) Executive is in material default in the performance of Executive's obligations, services or duties hereunder, or has materially breached any provision of this Agreement, or (ii) MediciNova otherwise has Cause to terminate Executive's employment (although the right of termination of Executive's employment under this Section 7.2 shall not be in limitation of any other right or remedy MediciNova may have under this Agreement or otherwise);

7.3 Upon the death or Total and Permanent Disability of Executive; or

7.4 Upon three months' written notice by either party to the other indicating the desire of the notifying party, in its sole discretion, to terminate the employment of Executive hereunder.

8. Compensation Upon Termination. In the event that the employment of Executive is terminated pursuant to Section 7 above, Executive shall be terminated without compensation other than for accrued salary and other accrued amounts; provided, however, that if such employment is terminated at MediciNova's option pursuant to Section 7.4 above, then Executive shall be entitled to such severance payment(s) as shall be provided for (if any) by the Employment Policies in effect at that time; and provided, further, that in lieu of the three months' notice provided by Section 7.4 above, MediciNova may provide Executive with an amount equal to three-fourths (3/4) of Executive's annual Base Compensation which shall be applicable at the time of Executive's termination of employment with MediciNova. Except as provided in the immediately preceding sentence (if applicable), Executive is entitled to no other compensation upon termination.

9. Option to Hire Executive as Consultant. Upon any termination of Executive's employment under this Agreement, either pursuant to Section 7 above or otherwise, MediciNova shall have the option (in MediciNova's discretion) to engage Executive as a consultant on a quarterly basis commencing on the effective date of termination of Executive's employment (the "**Termination Date**") and continuing for a period of up to one (1) year following the Termination Date (or, if longer, the period terminating on the date which is three (3) years after the Effective Date). MediciNova's rights under this Section 9 shall lapse if MediciNova has not provided Executive with written notice of MediciNova's intent to exercise its rights hereunder prior to the later of (i) the Termination Date (e.g., in the event of a voluntary termination under Section 7.4 above) and (ii) 30 days following notice of such termination (e.g., in the event of an involuntary termination under Section 7.2 above). As a consultant, Executive's duties shall include devoting attention to those matters reasonably requested by the Board but which will not interfere (as to time required) with the opportunity to maintain other employment consistent with

this Section 9. During any period for which Executive is engaged to perform consulting services for MediciNova under this Section 9, Executive agrees that Executive shall not:

9.1 Carry on directly or indirectly, whether or not for compensation (as proprietor, partner, stockholder (except that a less than one percent (1%) ownership in a public corporation shall be permitted), officer, director, agent, employee, consultant, trustee, affiliate or otherwise), any business which is, or as a result of Executive's engagement or participation would become, competitive with or adverse to the business of MediciNova as it exists as of the Termination Date;

9.2 Permit Executive's name to be used by any business competitive in any respect with the business of MediciNova as it exists as of the Termination Date;

9.3 Solicit or divert, or attempt to call on, solicit or divert, any customer of MediciNova with whom Executive became acquainted during Executive's employment or affiliation with MediciNova, either for Executive or for any other person, firm or corporation; or

9.4 Induce or attempt to induce any person who is an employee, agent or consultant of MediciNova to leave the employ of MediciNova.

Without limiting the other provisions of this Agreement, (i) Executive acknowledges and agrees that it is impossible to measure in money the damages which will befall the MediciNova by reason of Executive's failure to perform any of the obligations set forth in this Section 9, (ii) Executive acknowledges that MediciNova shall be entitled to enforce Executive's obligations under this Section 9 by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief, (iii) Executive agrees (to the maximum extent permitted by law) to have the provisions of this Section 9 specifically enforced against Executive by any court of equity and (iv) Executive consents to the entry of injunctive relief against Executive enjoining or restraining any violation or threatened violation of the provisions of this Section 9.

10. Compensation for Consulting Services. For each quarter (i.e., three-month period) that Executive provides consulting services to MediciNova pursuant to the option of MediciNova contained in Section 9 above, MediciNova shall pay Executive a sum equal to fifteen percent (15%) of Executive's annual Base Compensation which shall be applicable at the time of Executive's termination of employment with MediciNova (prorated for any period of less than a quarter). The parties expressly agree that when Executive is performing consulting services for MediciNova, Executive is acting as an independent contractor. Therefore, Executive shall be solely liable for Social Security and income taxes that result from Executive's compensation as a consultant. In addition, Executive shall not be entitled to any other benefits including, without limitation, such group medical, life and disability insurance and other benefits as may be provided to employees and/or executives of MediciNova.

11. Dispute Resolution Procedure. Any dispute arising out of or related to the employment relationship created hereby, including the termination of that relationship and any allegations of unfair or discriminatory treatment arising under state or federal law or otherwise, to the maximum extent permitted by law, shall be resolved by final and binding arbitration, except where the law specifically forbids the use of arbitration as a final and binding remedy, or

where section (d) below specifically allows a different remedy. The following dispute resolution procedure shall apply:

11.1 The party claiming to be aggrieved shall furnish to the other party a written statement of the grievance identifying any witnesses or documents that support the grievance and the relief requested or proposed.

11.2 The responding party shall furnish a statement of the relief, if any, that it is willing to provide, and the witnesses or documents that support its position as to the appropriate action. The parties can mutually agree to waive this step. If the matter is not resolved at this step, the parties shall submit the dispute to non-binding mediation before a mediator to be jointly selected by the parties. MediciNova will pay the cost of the mediation.

11.3 If the mediation does not produce a resolution of the dispute, the parties agree that the dispute shall be resolved by final and binding arbitration. The parties shall attempt to agree to the identity of an arbitrator, and, if they are unable to do so, they will obtain a list of arbitrators from the Federal Mediation and Conciliation Service and select an arbitrator by striking names from that list. The arbitrator shall have the authority to determine whether the conduct complained of in subsection (a) of this section violates the rights of the complaining party and, if so, to grant any relief authorized by law, subject to the exclusions of subsection (d) below. The arbitrator shall not have the authority to modify, change or refuse to enforce the terms of any employment agreement between the parties. In addition, the arbitrator shall not have the authority to require MediciNova to change any lawful policy or benefit plan. The hearing shall be transcribed. MediciNova shall bear the costs of the arbitration if Executive prevails. If MediciNova prevails, Executive will pay half the cost of the arbitration or $500, whichever is less. Each party shall be responsible for paying its own attorneys fees.

Arbitration shall be the exclusive final remedy for any dispute between the parties, to the maximum extent permitted by law, including but not limited to disputes involving claims for discrimination or harassment (such as claims under the Fair Employment and Housing Act, Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, or the Age Discrimination in Employment Act), wrongful termination, breach of contract, breach of public policy, physical or mental harm or distress or any other disputes, and the parties agree that no dispute shall be submitted to arbitration where the party claiming to be aggrieved has not complied with the preliminary steps provided for in subsections (a) and (b) above.

The parties agree that the arbitration award shall be enforceable in any court having jurisdiction to enforce this Agreement, so long as the arbitrator's findings of fact are supported by substantial evidence on the whole and the arbitrator has not made errors of law; provided, however, that either party may bring an action in a court of competent jurisdiction regarding or related to matters involving MediciNova's confidential, proprietary or trade secret information, or regarding or related to inventions that Executive may claim to have developed prior to joining MediciNova or after joining MediciNova, pursuant to California Labor Code 2870. The parties further agree that, for violations of Executive's confidentiality, proprietary information or trade secret obligations which the parties have elected to submit to arbitration, MediciNova retains the right to seek preliminary injunctive relief in court in order to preserve the status quo or prevent irreparable injury before the matter can be heard in arbitration.

11.4 MediciNova reserves the right to modify, change or cancel this provision upon 30 days written notice. However, such cancellation shall not affect matters which have already been submitted to arbitration.

12. Confidentiality and Inventions. Executive recognizes that MediciNova has and shall continue to have and develop information, knowledge and rights regarding inventions, confidential information, products, services, future plans, business affairs, processes, trade secrets, technical matters, customer lists, experimental designs and items of intellectual property. Executive hereby confirms and ratifies the Proprietary Information and Inventions Agreement (which is incorporated herein by reference) and agrees to execute and deliver to MediciNova any other similar agreement(s) presented to Executive by MediciNova from time to time.

13. Section Headings. The section headings or captions in this Agreement are for convenience of reference only and do not form a part hereof, and do not in any way modify, interpret or construe the intent of the parties or affect any of the provisions of this Agreement.

14. Survival. The obligations and rights imposed upon the parties hereto by the provisions of this Agreement which relate to acts or events subsequent to the termination of this Agreement shall survive the termination of this Agreement and shall remain fully effective thereafter.

15. Severability. Should any one or more of the provisions of this Agreement or of any agreement entered into pursuant to this Agreement be determined to be illegal or unenforceable in any relevant jurisdiction, then such illegal or unenforceable provision shall be modified by the proper court, if possible, but only to the extent necessary to make such provision enforceable, and such modified provision and all other provisions of this Agreement and of each other agreement entered into pursuant to this Agreement shall be given effect separately from the provision or portion thereof determined to be illegal or unenforceable and shall not be affected thereby; provided, however, that any such modification shall apply only with respect to the operation of this Agreement in the particular jurisdiction in which such determination of illegality or unenforceability is made.

16. Waiver. The failure of either party to enforce any provision of this Agreement shall not be construed as a waiver of any such provision, nor prevent such party thereafter from enforcing such provision or any other provision of this Agreement. The rights granted both parties herein are cumulative and the election of one shall not constitute a waiver of such party’s right to assert all other legal remedies available under the circumstances.

17. Parties in Interest. Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the parties hereto and the successors, assigns and affiliates of MediciNova, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any third person to any party to this Agreement, nor shall any provision give any third person any right of subrogation or action over or against any party to this Agreement.

18. Assignment. MediciNova may, in its sole discretion, assign its rights and obligations, in whole or in part, to any parent, subsidiary or affiliate of MediciNova. This Agreement shall

be binding upon the heirs, executors, successors and assigns of Executive. This Agreement contemplates the rendition of personal services by Executive and Executive may not assign this Agreement or delegate Executive's responsibilities hereunder.

19. Entire Agreement. Except for the Proprietary Information and Inventions Agreement and one or more similar agreements between MediciNova and Executive as may exist from time to time, this Agreement contains the entire agreement of the parties with respect to the subject matter hereof and no representation, inducement, promise or agreement, oral or otherwise, between the parties not embodied herein shall be of any force or effect. No modification, termination or attempted waiver shall be valid unless in writing and signed by the party against whom or which such modification, termination or waiver is sought to be enforced.

20. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

MediciNova:

MediciNova, Inc.,
a Delaware corporation

By: /s/ Takashi Kiyoizumi
Name: Takashi Kiyoizumi
Title: President and CEO

Executive:

By: /s/ Richard E. Gammans
Name: Richard E. Gammans, Ph.D.

EXHIBIT A

[attached]

PROPRIETARY INFORMATION AND INVENTIONS AGREEMENT
(Richard E. Gammans, Ph.D.)

MediciNova, Inc.
4350 Towne Centre Court, Suite 950
San Diego, California 92121

Ladies and Gentlemen:

I recognize that MediciNova, Inc., a Delaware corporation ("**MediciNova**"), possesses a body of existing technology and intellectual property rights and is engaged in a continuous program of research, development and production with respect to its business (present and future).

I understand that:

A. As part of my employment by MediciNova (with the term "**employment**", as used herein, to include any consulting relationship), I am expected to make new contributions and inventions of value to MediciNova.

B. I understand that my employment creates a relationship of confidence and trust between me and MediciNova and that my position places me in a unique position of access to the proprietary technology, trade secrets and research, development and business information:

(1) applicable to the business of MediciNova; or

(2) applicable to the business of any client, partner or customer of MediciNova,

which may be made known to me by MediciNova or by any client, partner or customer of MediciNova, or learned by me during the period of my employment.

C. MediciNova possesses and will continue to possess information that has been or will be created, discovered or developed, or has or will otherwise become known to MediciNova (including, without limitation, information created, discovered, developed or made known by or to me during the period of or arising out of my employment by MediciNova), and/or in which property rights have been or will be assigned or otherwise conveyed to MediciNova, which information has commercial value in the business in which MediciNova is engaged. All of the aforementioned information is hereinafter called "**Confidential Information**." By way of illustration, but not limitation, Confidential Information includes all data, compilations, blueprints, plans, audio and/or video recordings and/or devices, information on computer disks, software, tapes, printouts and other printed, typewritten or handwritten documents, specifications, strategies, systems, schemas, methods (including delivery, storage, receipt, transmission, presentation and manufacture of audio, video, informational or other data or content), business and marketing development plans, customer lists, research projections, processes, techniques, designs, sequences, components, programs, technology, ideas, know-how, improvements, inventions (whether or not patentable or copyrightable), information about

operations and maintenance, trade secrets, formulae, models, patent disclosures and any other information concerning the actual or anticipated business, research or development of MediciNova or its actual or potential customers or partners or which is or has been generated or received in confidence by or for MediciNova by or from any person; and all tangible and intangible embodiments thereof of any kind whatsoever including, where appropriate and without limitation, all compositions, machinery, apparatus, records, reports, drawings, copyright applications, patent applications, documents and samples, prototypes, models, products and the like.

In consideration of my employment or continued employment, as the case may be, and the compensation received by me from MediciNova from time to time, I hereby agree as follows:

1. All Confidential Information shall be the sole property of MediciNova and its assigns, and MediciNova and its assigns shall be the sole owner of all patents, copyrights and other rights in connection therewith. I hereby assign to MediciNova any rights I may have or acquire in all Confidential Information. At all times during my employment by MediciNova and at all times after termination of such employment, I will keep in confidence and trust all Confidential Information, and I will not disclose, sell, use, lecture upon or publish any Confidential Information or anything relating to it without the prior written consent of MediciNova, except as may be necessary in the ordinary course of performing my duties as an employee of (or consultant to) MediciNova.

2. Without limiting the terms of my employment with MediciNova, I agree that during the period of my employment by MediciNova I will not engage in any employment or activity in any business that is directly or indirectly competitive with MediciNova.

3. All documents, data, records, apparatus, equipment, sequences, components, programs and other physical property, whether or not pertaining to Confidential Information, furnished to me by MediciNova or produced by myself or others in connection with my employment shall be and remain the sole property of MediciNova and shall be returned promptly to MediciNova as and when requested by MediciNova. Should MediciNova not so request, I shall return and deliver all such property upon termination of my employment by me or by MediciNova for any reason ("**Termination**") and I will not take with me any such property, any reproduction of such property or any materials or products derived from such property.

4. I shall promptly disclose any outside activities or interests, including any ownership or participation in the development of prior inventions, that conflict or may conflict with the interests of MediciNova. I understand that I am required to make such disclosures promptly if the activity or interest is related, either directly or indirectly, to (i) an area of research, development, service, product or product line of MediciNova, (ii) a manufacturing, development or research methodology or process of MediciNova or (iii) any activity that I may be involved with on behalf of MediciNova.

5. I shall promptly disclose to MediciNova, or any persons designated by it, all improvements, inventions, formulae, processes, programs, techniques, know-how and data, whether or not patentable or copyrightable, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with MediciNova which are related to or useful in the business of MediciNova, or result from tasks assigned me by MediciNova, or result from use of premises owned, leased or contracted for by MediciNova (all said improvements, inventions, formulae, processes, techniques, know-how and data shall be

collectively hereinafter called "**Inventions**"). Such disclosure shall continue for one year after Termination with respect to anything that would be an Invention if made, conceived, reduced to practice or learned prior to Termination.

6. I agree that all Inventions shall be the sole property of MediciNova and its assigns, and MediciNova and its assigns shall be the sole owner of all patents, copyrights and other rights in connection therewith and all Confidential Information with respect thereto. I hereby assign to MediciNova any and all rights I may have or acquire in all Inventions, including all rights that may be known as or referred to as "**moral rights**." I further agree as to all Inventions to assist MediciNova in every proper way (but at MediciNova's expense) to obtain and from time to time enforce patents and copyrights on the Inventions in any and all countries, and to that end I will execute all documents for use in applying for and obtaining such patents and copyrights thereon and enforcing the same, as MediciNova may desire, together with any assignments thereof to MediciNova or persons designated by it. My obligation to assist MediciNova in obtaining and enforcing patents and copyrights for the Inventions in any and all countries shall continue beyond Termination, but MediciNova shall compensate me at a reasonable rate after Termination for time actually spent by me at MediciNova's request on such assistance. In the event that MediciNova is unable for any reason whatsoever to secure my signature to any lawful and necessary document required to apply for or execute any patent or copyright application with respect to Inventions (including renewals, extension, continuations, divisions or continuations in part thereof), I hereby irrevocably designate and appoint MediciNova and its duly authorized officers and agents, as my agents and attorneys-in-fact to act for and in my behalf and instead of me, to execute and file any such application and to do all other lawfully permitted acts to further the prosecution and issuance of patents or copyrights thereon with the same legal force and effect as if executed by me.

7. As a matter of record I have identified beneath by signature hereto a complete list of all inventions or improvements relevant to the subject matter of my employment by MediciNova which have been made or conceived or first reduced to practice by me alone or jointly with others prior to my employment by MediciNova (**"Prior Inventions"**) which I desire to remove from the operation of this Agreement; and I covenant that such list is complete. If no such list is identified, I represent that I have made no such Prior Inventions at the time of the commencement of my employment by MediciNova. Notwithstanding the foregoing, and without limiting the other provisions of this Agreement, I agree that (i) any improvements or new inventions to the item(s) so identified on such list (if any) shall be treated as Inventions for purposes of this Agreement if the provisions of Section 5 above are otherwise applicable and (ii) if, in the course of my employment with MediciNova, I incorporate a Prior Invention into a MediciNova product, process, application, machine or invention, the MediciNova is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license (with rights to sublicense through multiple tiers of sublicensees) to make, have made, modify, use and sell such Prior Invention. Notwithstanding the foregoing, I agree that I will not incorporate, or permit to be incorporated, Prior Inventions in any MediciNova product, process, application, machine or invention without MediciNova's prior written consent.

8. I represent that my performance of all the terms of this Agreement and that my employment by MediciNova does not and will not breach or constitute an event of default under any agreement (i) obligating me to keep in confidence proprietary information acquired by me in confidence or in trust prior to, or at any point throughout, my employment by MediciNova, (ii)

obligating me to assign to or protect for the benefit of any third party any proprietary information or any improvement, invention, formulae, process, program, technique, know-how or data or (iii) that is designed in any way to limit my employment or activity in any business in which I may compete, directly or indirectly, with any other business, or which might by application have such an effect. I have not entered into, and I agree that I will not enter into, any agreement (either written or oral) in conflict herewith.

9. I understand, acknowledge and agree that, as part of the consideration for my employment or continued employment by MediciNova, I have not brought and will not bring with me to MediciNova or use in the performance of my responsibilities at or for MediciNova any equipment, supplies, facility or trade secret or other proprietary information of any former employer which are not generally available to the public, unless I have obtained (and provide herewith to MediciNova a copy of) written authorization for their possession and use.

10. I also understand that, in my employment by MediciNova, I am not to breach any obligation of confidentiality that I have to others, and I agree that I shall fulfill all such obligations during my employment by MediciNova. A copy of any document reflecting any such obligation, or a description thereof if no document is available, is provided herewith to MediciNova.

11. I agree that during the term of my employment with MediciNova and for a period of twelve (12) months after Termination, I will not directly or indirectly: (i) induce or attempt to induce any employee or consultant of MediciNova to leave the employ of MediciNova or to otherwise end such employee's or consultant's relationships with MediciNova, or (ii) other than on behalf of MediciNova, induce or attempt to induce any other person to terminate a relationship with MediciNova.

12. I acknowledge that, due to the uniqueness of my relationship with MediciNova, MediciNova would not have an adequate remedy at law for money damages in the event that this Agreement is not fully performed in accordance with its terms. I agree that in addition to any other rights and remedies available to MediciNova for any breach by me of my obligations hereunder, MediciNova shall be entitled to enforcement of my obligations hereunder by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief.

13. If any provision of this Agreement shall be declared invalid, illegal or unenforceable, such provision shall be severed and all remaining provisions shall continue in full force and effect.

14. If applicable, this Agreement does not apply to inventions which qualify fully for protection under Section 2870 of the California Labor Code (which, if applicable, could apply to ideas or inventions for which no equipment, supplies, facility or trade secret information of MediciNova were used and which were developed entirely on my own time, and (1) which do not relate at the time of conception or reduction to practice of the invention (a) to the actual business of MediciNova, or (b) to MediciNova's actual or demonstrably anticipated research or development, or (2) which do not result from any work performed by me for MediciNova). Notwithstanding the foregoing, I shall disclose in confidence to MediciNova any invention in order to permit MediciNova to make a determination as to compliance by me with the terms and conditions of this Agreement.

15. This Agreement shall be effective as of the first day of my employment by MediciNova. The term "**employment**" and the term or duration of my employment, as used herein and for purposes of this Agreement, shall include, without limitation, any consulting relationship between myself and MediciNova (including, if applicable, any such relationship which may follow the termination of my status as an employee of MediciNova or which may precede my status as an employee of MediciNova). Accordingly, notwithstanding any other provision of this Agreement to the contrary (and without limitation), a "**Termination**" shall not be deemed to have occurred if a consulting relationship persists following the termination of my status as an employee of MediciNova (if applicable).

16. The term MediciNova, as used herein, shall include any subsidiary or affiliate of MediciNova.

17. This Agreement shall be binding upon me, my heirs, executors, assigns and administrators and shall inure to the benefit of MediciNova, its successors and assigns.

18. This Agreement shall be governed by and construed in accordance with the internal laws of the State of California, without regard to the conflicts of law principles thereof.

Dated: June 14, 2004

/s/ Richard E. Gammans
Name: Richard E. Gammans, Ph.D.

Prior Inventions:

Accepted and Agreed to
this 14th day of June, 2004.

MediciNova, Inc.

By: /s/ Takashi Kiyoizumi
Name: Takashi Kiyoizumi
Title: President and CEO

EXHIBIT 10.14

MEDICINOVA

July 30, 2003

Kenneth W. Locke, Ph.D.
1257 Belleflower Road
Carlsbad, CA 92009

Dear Dr. Locke,

I am pleased to inform you of your promotion that was approved by the Board of Directors of MediciNova.

Your new title effective August 1, 2003 will be:

Senior Vice President, Development Operations and Drug Discovery

Your annual base salary will be adjusted to $210,000.

Congratulations and the Company appreciates your significant contribution.

With my personal regards,

/s/ Takashi Kiyoizumi

Takashi Kiyoizumi, M.D., Ph.D.
President & CEO

CC: Rebecca Wong
HR file

MediciNova, Inc.
4370 La Jolla Village Drive, Suite 400
San Diego, California 92122
tel (858) 373-1500
fax (858) 373-7000
web www.medicinova.com

EXECUTIVE EMPLOYMENT AGREEMENT

(Kenneth W. Locke, Ph.D.)

This EXECUTIVE EMPLOYMENT AGREEMENT (this "**Agreement**") is made as of September 26**,** 2000 (the "**Effective Date**") by and between MEDICINOVA, INC, a Delaware corporation ("**MediciNova**"), and Kenneth W. Locke, Ph.D. ("**Executive**"), with reference to the following facts:

A. The Board of Directors of MediciNova (the "**Board**") has determined that it would be in the best interests of MediciNova to enter into this Employment Agreement on the terms herein set forth.

B. Executive is willing to serve as an employee of MediciNova upon the terms and conditions herein set forth. In respect of such employment, Executive has also executed that certain Proprietary Information and Inventions Agreement of even date herewith (the "**Proprietary Information and Inventions Agreement**"), which is attached hereto as Exhibit A and incorporated herein by reference as though fully set forth herein.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, the parties agree as follows:

1. Definitions. For purposes of this Agreement, the following terms shall have their respective meanings:

1.1 "**Cause**" shall mean (as shall reasonably be determined by the Board of Directors of the MediciNova - the "**Board**"): (i) any intentional failure to perform the Executive's obligations, services or duties under this Agreement or any other agreement or arrangement between the Executive and the MediciNova regarding employment or consulting services to be rendered by the Executive to the MediciNova, other than an immaterial violation which is remedied upon reasonable notice; (ii) failure to achieve performance levels for the MediciNova consistent with the MediciNova's goals, as determined by the Board in good faith and following appropriate inquiry; (iii) any violation of MediciNova policy, other than an immaterial violation which is remedied upon reasonable notice; (iv) any willful neglect of the Executive's duties to the MediciNova or gross misconduct; (v) any failure to protect the MediciNova's trade secrets; or (vi) any commission of any crime or criminal offense involving moral turpitude.

1.2 "**Total and Permanent Disability**" shall have the meaning ascribed to such term in Section 22 of the Internal Revenue Code of 1986, as amended.

2. Duties. Subject to the terms and provisions of this Agreement, Executive is employed by MediciNova as an executive employee of MediciNova. Executive's specific position shall be as the Vice President, Research, of MediciNova; provided, however, that the Executive may be reassigned by the Board to another executive position with MediciNova (or another position of similar responsibility) at such time as the Board (excluding Executive) reasonably agrees upon another Chief Executive Officer. Executive covenants to perform Executive's employment duties in good faith. Executive shall at all times during the

performance of this Agreement strictly adhere to and obey any and all rules and regulations now in effect or as subsequently adopted and/or modified governing the conduct of MediciNova employees and/or executives (the "**Employment Policies**"). In the event of any conflict between the provisions of this Agreement and any of the Employment Policies, the provisions of this Agreement shall control. A default under any the Employment Policies, except to the extent necessary or appropriate to comply with the provisions of this Agreement, shall be a default under this Agreement.

3. Exclusive Services. Executive's entire business time, attention, energies, skills, learning and best efforts shall be devoted to the business of MediciNova; provided, however, that this Section 3 shall not be construed as preventing Executive from participating in social, civic or professional associations or engaging in passive outside investment activities which may require a limited portion of time and effort to manage, consistent with any Employment Policies and so long as such activities do not interfere with the performance of Executive's duties nor compete, in any way, with the products or services offered by or through MediciNova.

4. Term of Employment. The term of this Agreement shall continue until such time as the employment of Executive is terminated pursuant to Section 7 below; provided, however, that this Agreement shall automatically terminate upon the death or Total and Permanent Disability of Executive.

5. Compensation. For all services rendered by Executive to MediciNova, MediciNova shall pay/provide to Executive the following:

- base compensation in the amount of $ 155,000 per annum (the "**Base Compensation**");
- periodic bonuses determined within the sole discretion of the Board (or any committee of the Board which is appointed to consider matters relating to executive compensation) but with reference to amounts paid to other executives and/or employees of MediciNova;
- grants of equity-based compensation within the sole discretion of the Board (or any committee of the Board which is appointed to consider matters relative to equity-based compensation);
- such group medical and life insurance and participation in other benefit plans as shall be made available for executives of MediciNova (with amounts and levels of participation therein determined with reference to other executives and/or employees of MediciNova); and
- an annual amount of vacation days consistent with amounts available for other executives of MediciNova (but, in any event, no fewer than 10 days) (collectively, the "**Compensation Package**").

6. Adjustments. The amount of Base Compensation may be adjusted as of January 1 of each calendar year by an amount upon which the Board and Executive shall mutually and reasonably agree at or about that time. Compensation under the Compensation Package shall be

paid to Executive less required deductions for Social Security, withholding taxes and other authorized deductions and at times when executives of MediciNova normally receive their compensation.

7. Termination. The employment of Executive may be terminated at any time by:

7.1 Mutual agreement of MediciNova and Executive evidenced in writing;

7.2 Action of the Board without prior notice to Executive if the Board reasonably shall establish that (i) Executive is in material default in the performance of Executive's obligations, services or duties hereunder, or has materially breached any provision of this Agreement, or (ii) MediciNova otherwise has Cause to terminate Executive's employment (although the right of termination of Executive's employment under this Section 7.2 shall not be in limitation of any other right or remedy MediciNova may have under this Agreement or otherwise);

7.3 Upon the death or Total and Permanent Disability of Executive; or

7.4 Upon 180 days' written notice by either party to the other indicating the desire of the notifying party, in its sole discretion, to terminate the employment of Executive hereunder.

8. Compensation Upon Termination. In the event that the employment of Executive is terminated pursuant to Section 7 above, Executive shall be terminated without compensation other than for accrued salary and other accrued amounts; provided, however, that if such employment is terminated at MediciNova's option pursuant to Section 7.4 above, then Executive shall be entitled to such severance payment(s) as shall be provided for (if any) by the Employment Policies in effect at that time; and provided, further, that in lieu of the 180 days' notice provided by Section 7.4 above, MediciNova may provide Executive with an amount equal to one-half (1/2) of Executive's annual Base Compensation which shall be applicable at the time of Executive's termination of employment with MediciNova. Except as provided in the immediately preceding sentence (if applicable), Executive is entitled to no other compensation upon termination.

9. Option to Hire Executive as Consultant. Upon any termination of Executive's employment under this Agreement, either pursuant to Section 7 above or otherwise, MediciNova shall have the option (in MediciNova's discretion) to engage Executive as a consultant on a quarterly basis commencing on the effective date of termination of Executive's employment (the "**Termination Date**") and continuing for a period of up to one (1) year following the Termination Date (or, if longer, the period terminating on the date which is three (3) years after the Effective Date). MediciNova's rights under this Section 9 shall lapse if MediciNova has not provided Executive with written notice of MediciNova's intent to exercise its rights hereunder prior to the later of (i) the Termination Date (e.g., in the event of a voluntary termination under Section 7.4 above) and (ii) 30 days following notice of such termination (e.g., in the event of an involuntary termination under Section 7.2 above). As a consultant, Executive's duties shall include devoting attention to those matters reasonably requested by the Board but which will not interfere (as to time required) with the opportunity to maintain other employment consistent with this Section 9. During any period for which Executive is engaged to perform consulting services for MediciNova under this Section 9, Executive agrees that Executive shall not:

9.1 Carry on directly or indirectly, whether or not for compensation (as proprietor, partner, stockholder (except that a less than one percent (1%) ownership in a public corporation shall be permitted), officer, director, agent, employee, consultant, trustee, affiliate or otherwise), any business which is, or as a result of Executive's engagement or participation would become, competitive with or adverse to the business of MediciNova as it exists as of the Termination Date;

9.2 Permit Executive's name to be used by any business competitive in any respect with the business of MediciNova as it exists as of the Termination Date;

9.3 Solicit or divert, or attempt to call on, solicit or divert, any customer of MediciNova with whom Executive became acquainted during Executive's employment or affiliation with MediciNova, either for Executive or for any other person, firm or corporation; or

9.4 Induce or attempt to induce any person who is an employee, agent or consultant of MediciNova to leave the employ of MediciNova.

Without limiting the other provisions of this Agreement, (i) Executive acknowledges and agrees that it is impossible to measure in money the damages which will befall the MediciNova by reason of Executive's failure to perform any of the obligations set forth in this Section 9, (ii) Executive acknowledges that MediciNova shall be entitled to enforce Executive's obligations under this Section 9 by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief, (iii) Executive agrees (to the maximum extent permitted by law) to have the provisions of this Section 9 specifically enforced against Executive by any court of equity and (iv) Executive consents to the entry of injunctive relief against Executive enjoining or restraining any violation or threatened violation of the provisions of this Section 9.

10. Compensation for Consulting Services. For each quarter (i.e., three-month period) that Executive provides consulting services to MediciNova pursuant to the option of MediciNova contained in Section 9 above, MediciNova shall pay Executive a sum equal to fifteen percent (15%) of Executive's annual Base Compensation which shall be applicable at the time of Executive's termination of employment with MediciNova (prorated for any period of less than a quarter). The parties expressly agree that when Executive is performing consulting services for MediciNova, Executive is acting as an independent contractor. Therefore, Executive shall be solely liable for Social Security and income taxes that result from Executive's compensation as a consultant. In addition, Executive shall not be entitled to any other benefits including, without limitation, such group medical, life and disability insurance and other benefits as may be provided to employees and/or executives of MediciNova.

11. Dispute Resolution Procedure. Any dispute arising out of or related to the employment relationship created hereby, including the termination of that relationship and any allegations of unfair or discriminatory treatment arising under state or federal law or otherwise, to the maximum extent permitted by law, shall be resolved by final and binding arbitration, except where the law specifically forbids the use of arbitration as a final and binding remedy, or where section (d) below specifically allows a different remedy. The following dispute resolution procedure shall apply:

11.1 The party claiming to be aggrieved shall furnish to the other party a written statement of the grievance identifying any witnesses or documents that support the grievance and the relief requested or proposed.

11.2 The responding party shall furnish a statement of the relief, if any, that it is willing to provide, and the witnesses or documents that support its position as to the appropriate action. The parties can mutually agree to waive this step. If the matter is not resolved at this step, the parties shall submit the dispute to non-binding mediation before a mediator to be jointly selected by the parties. MediciNova will pay the cost of the mediation.

11.3 If the mediation does not produce a resolution of the dispute, the parties agree that the dispute shall be resolved by final and binding arbitration. The parties shall attempt to agree to the identity of an arbitrator, and, if they are unable to do so, they will obtain a list of arbitrators from the Federal Mediation and Conciliation Service and select an arbitrator by striking names from that list. The arbitrator shall have the authority to determine whether the conduct complained of in subsection (a) of this section violates the rights of the complaining party and, if so, to grant any relief authorized by law, subject to the exclusions of subsection (d) below. The arbitrator shall not have the authority to modify, change or refuse to enforce the terms of any employment agreement between the parties. In addition, the arbitrator shall not have the authority to require MediciNova to change any lawful policy or benefit plan. The hearing shall be transcribed. MediciNova shall bear the costs of the arbitration if Executive prevails. If MediciNova prevails, Executive will pay half the cost of the arbitration or $500, whichever is less. Each party shall be responsible for paying its own attorneys fees.

Arbitration shall be the exclusive final remedy for any dispute between the parties, to the maximum extent permitted by law, including but not limited to disputes involving claims for discrimination or harassment (such as claims under the Fair Employment and Housing Act, Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, or the Age Discrimination in Employment Act), wrongful termination, breach of contract, breach of public policy, physical or mental harm or distress or any other disputes, and the parties agree that no dispute shall be submitted to arbitration where the party claiming to be aggrieved has not complied with the preliminary steps provided for in subsections (a) and (b) above.

The parties agree that the arbitration award shall be enforceable in any court having jurisdiction to enforce this Agreement, so long as the arbitrator's findings of fact are supported by substantial evidence on the whole and the arbitrator has not made errors of law; provided, however, that either party may bring an action in a court of competent jurisdiction regarding or related to matters involving MediciNova's confidential, proprietary or trade secret information, or regarding or related to inventions that Executive may claim to have developed prior to joining MediciNova or after joining MediciNova, pursuant to California Labor Code 2870. The parties further agree that, for violations of Executive's confidentiality, proprietary information or trade secret obligations which the parties have elected to submit to arbitration, MediciNova retains the right to seek preliminary injunctive relief in court in order to preserve the status quo or prevent irreparable injury before the matter can be heard in arbitration.

11.4 MediciNova reserves the right to modify, change or cancel this provision upon 30 days written notice. However, such cancellation shall not affect matters which have already been submitted to arbitration.

12. Confidentiality and Inventions. Executive recognizes that MediciNova has and shall continue to have and develop information, knowledge and rights regarding inventions, confidential information, products, services, future plans, business affairs, processes, trade secrets, technical matters, customer lists, experimental designs and items of intellectual property. Executive hereby confirms and ratifies the Proprietary Information and Inventions Agreement (which is incorporated herein by reference) and agrees to execute and deliver to MediciNova any other similar agreement(s) presented to Executive by MediciNova from time to time.

13. Section Headings. The section headings or captions in this Agreement are for convenience of reference only and do not form a part hereof, and do not in any way modify, interpret or construe the intent of the parties or affect any of the provisions of this Agreement.

14. Survival. The obligations and rights imposed upon the parties hereto by the provisions of this Agreement which relate to acts or events subsequent to the termination of this Agreement shall survive the termination of this Agreement and shall remain fully effective thereafter.

15. Severability. Should any one or more of the provisions of this Agreement or of any agreement entered into pursuant to this Agreement be determined to be illegal or unenforceable in any relevant jurisdiction, then such illegal or unenforceable provision shall be modified by the proper court, if possible, but only to the extent necessary to make such provision enforceable, and such modified provision and all other provisions of this Agreement and of each other agreement entered into pursuant to this Agreement shall be given effect separately from the provision or portion thereof determined to be illegal or unenforceable and shall not be affected thereby; provided, however, that any such modification shall apply only with respect to the operation of this Agreement in the particular jurisdiction in which such determination of illegality or unenforceability is made.

16. Waiver. The failure of either party to enforce any provision of this Agreement shall not be construed as a waiver of any such provision, nor prevent such party thereafter from enforcing such provision or any other provision of this Agreement. The rights granted both parties herein are cumulative and the election of one shall not constitute a waiver of such party's right to assert all other legal remedies available under the circumstances.

17. Parties in Interest. Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the parties hereto and the successors, assigns and affiliates of MediciNova, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any third person to any party to this Agreement, nor shall any provision give any third person any right of subrogation or action over or against any party to this Agreement.

18. Assignment. MediciNova may, in its sole discretion, assign its rights and obligations, in whole or in part, to any parent, subsidiary or affiliate of MediciNova. This Agreement shall

be binding upon the heirs, executors, successors and assigns of Executive. This Agreement contemplates the rendition of personal services by Executive and Executive may not assign this Agreement or delegate Executive's responsibilities hereunder.

19. Entire Agreement. Except for the Proprietary Information and Inventions Agreement and one or more similar agreements between MediciNova and Executive as may exist from time to time, this Agreement contains the entire agreement of the parties with respect to the subject matter hereof and no representation, inducement, promise or agreement, oral or otherwise, between the parties not embodied herein shall be of any force or effect. No modification, termination or attempted waiver shall be valid unless in writing and signed by the party against whom or which such modification, termination or waiver is sought to be enforced.

20. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

MediciNova:
MediciNova, Inc.,
a Delaware corporation

By: /s/ Takashi Kiyoizumi

Name: Takashi Kiyoizumi, M.D., Ph.D.
Title: President and CEO

Executive:

By: /s/ Kenneth W. Locke

Name: Kenneth W. Locke, Ph.D.

EXHIBIT A

[attached]

MEDICINOVA, INC.
PROPRIETARY INFORMATION AND INVENTIONS AGREEMENT
Kenneth W. Locke, Ph.D.

MediciNova, Inc.
4540 Towne Centre Court
San Diego, California 92121

Ladies and Gentlemen:

I recognize that MediciNova, Inc., a Delaware corporation (the "**Company**"), possesses a body of existing technology and intellectual property rights and is engaged in a continuous program of research, development and production with respect to its business (present and future).

I understand that:

A. As part of my employment by the Company (with the term "**employment**," as used herein, to include any consulting relationship), I am expected to make new contributions and inventions of value to the Company.

B. My employment creates a relationship of confidence and trust between me and the Company and that my position places me in a unique position of access to the proprietary technology, trade secrets and research, development and business information:

(1) applicable to the business of the Company; or

(2) applicable to the business of any client, partner or customer of the Company,

which may be made known to me by the Company or by any client, partner or customer of the Company, or learned by me during the period of my employment.

C. The Company possesses and will continue to possess information that has been or will be created, discovered or developed, or has or will otherwise become known to the Company (including, without limitation, information created, discovered, developed or made known by or to me during the period of or arising out of my employment by the Company), and/or in which property rights have been or will be assigned or otherwise conveyed to the Company, which information has commercial value in the business in which the Company is engaged. All of the aforementioned information is hereinafter called "**Confidential Information**." By way of illustration, but not limitation, Confidential Information includes all data, compilations, blueprints, plans, audio and/or video recordings and/or devices, information on computer disks, software, tapes, printouts and other printed, typewritten or handwritten documents, specifications, strategies, systems, schemas, methods (including delivery, storage, receipt, transmission, presentation and manufacture of audio, video, informational or other data or content), business and marketing development plans, customer lists, budgets and unpublished financial statements, licenses and license agreements, research projections, processes,

techniques, designs, sequences, components, programs, technology, ideas, know-how, improvements, inventions (whether or not patentable or copyrightable), information about operations and maintenance, trade secrets, formulae, models, patent disclosures, information regarding the skills and compensation of other employees of the Company and other information concerning the actual or anticipated business, research or development of the Company or its actual or potential customers or partners or which is or has been generated or received in confidence by or for the Company by or from any person; and all tangible and intangible embodiments thereof of any kind whatsoever including, where appropriate and without limitation, all compositions, machinery, apparatus, records, reports, drawings, copyright applications, patent applications, documents, samples, prototypes, models, products and the like.

In consideration of my employment or continued employment, as the case may be, and the compensation received by me from the Company from time to time, I hereby agree as follows:

1. All Confidential Information shall be the sole property of the Company and its assigns, and the Company and its assigns shall be the sole owner of all trade secrets, patents, copyrights and other rights in connection therewith. I hereby assign to the Company any rights I may have or acquire in all Confidential Information. At all times during my employment by the Company and at all times after termination of my employment by me or by the Company for any reason ("**Termination**"), I will hold in confidence and trust all Confidential Information, and I will not disclose, sell, use, lecture upon or publish any Confidential Information or anything relating to it without the prior written consent of the Company, except as may be necessary in the ordinary course of performing my duties as an employee of (or consultant to) the Company.

2. Without limiting the terms of my employment with the Company, I agree that during the period of my employment by the Company I will not engage in any employment or activity in any business that is directly or indirectly competitive with the Company or would otherwise conflict with my employment by the Company.

3. All documents, data, records, apparatus, equipment, sequences, components, programs and other physical property, whether or not pertaining to Confidential Information, furnished to me by the Company or produced by myself or others in connection with my employment shall be and remain the sole property of the Company and shall be returned promptly to the Company as and when requested by the Company. Even should the Company not so request, I shall return and deliver all such property upon Termination and I will not take with me any such property, any reproduction of such property or any materials or products derived from such property. I further agree that any property situated on the Company' s premises and owned by the Company, including disks and other storage media, filing cabinets or other work areas, is subject to inspection by Company personnel at any time with or without notice.

4. I shall promptly disclose any outside activities or interests, including any ownership or participation in the development of Prior Inventions (as defined in Section 8 below), that conflict or may conflict with the interests of the Company. I understand that I am required to make such disclosures promptly if the activity or interest is related, either directly or indirectly, to (i) an area of research, development, service, product or product line of the

Company, (ii) a manufacturing, development or research methodology or process of the Company or (iii) any activity that I may be involved with on behalf of the Company.

5. I shall promptly disclose to the Company, or any persons designated by it, all improvements, inventions, formulae, processes, programs, techniques, know-how, data and the like, whether or not patentable or copyrightable, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with the Company which are related to or useful in the business of the Company, or result from tasks assigned to me by the Company, or result from use of premises owned, leased or contracted for by the Company (all said improvements, inventions, formulae, processes, techniques, know-how, data and the like shall be collectively hereinafter called "**Inventions**"). Such disclosure shall continue for one year after Termination with respect to anything that would be an Invention if made, conceived, reduced to practice or learned prior to Termination.

6. I agree to keep and maintain adequate and current records (in the form of notes, sketches, documentation, drawings and in any other form that may be required by the Company) of all Confidential Information developed by me and all Inventions made by me during the period of my employment at the Company, which records shall be made available to and remain the sole property of the Company at all times.

7. I agree that all Inventions shall be the sole property of the Company and its assigns, and the Company and its assigns shall be the sole owner of all trade secrets, patents, copyrights and other rights in connection therewith and all Confidential Information with respect thereto. I hereby assign to the Company any and all rights I may have or acquire in all Inventions, including all rights that may be known as or referred to as "moral rights." I also acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by copyright are "works made for hire" pursuant to the United States Copyright Act (17 U.S.C. Section 101), as amended. I further agree as to all Inventions to assist the Company in every proper way (but at the Company's expense) to obtain and from time to time enforce patents and copyrights on Inventions in any and all countries, and to that end I will execute all documents for use in applying for and obtaining such patents and copyrights thereon and enforcing the same, as the Company may desire, together with any assignments thereof to the Company or persons designated by it. My obligation to assist the Company in obtaining and enforcing patents and copyrights for Inventions in any and all countries shall continue beyond Termination, but the Company shall compensate me at a reasonable rate after Termination for time actually spent by me at the Company's request on such assistance. In the event that the Company is unable for any reason whatsoever to secure my signature to any lawful and necessary document required to apply for or execute any patent or copyright application with respect to Inventions (including renewals, extension, continuations, divisions, continuations in part or preservation of rights in respect thereof), I hereby irrevocably designate and appoint the Company, and its duly authorized officers and agents, as my agents and attorneys-in-fact to act for and in my behalf and instead of me, to execute and file any such application and to do all other lawfully permitted acts to further the prosecution and issuance of patents or copyrights thereon with the same legal force and effect as if executed by me.

8. As a matter of record I have identified on Exhibit A hereto a complete list of all inventions or improvements relevant to the subject matter of my employment by the Company which have been made or conceived or first reduced to practice by me, alone or jointly with others, prior to my employment by the Company ("**Prior Inventions**") which I desire to remove from the operation of this Agreement. If disclosure of any such Prior Invention would cause me to violate any prior confidentiality agreement, I understand that I am not to list such Prior Invention on Exhibit A hereto but am only to disclose a cursory name for each such Prior Invention, a listing of the party(ies) to whom it belongs and the fact that full disclosure as to such Prior Inventions has not been made for that reason. I represent that my list of Prior Inventions is complete. If no such list of Prior Inventions is identified, I represent that I have made no such Prior Inventions at the time of the commencement of my employment by the Company. Notwithstanding the foregoing, and without limiting the other provisions of this Agreement, I agree that (i) any improvements or new inventions to the item(s) so identified on such list (if any) shall be treated as Inventions for purposes of this Agreement if the provisions of Section 5 above are otherwise applicable and (ii) if, in the course of my employment with the Company, I incorporate a Prior Invention into a Company product, process, application, machine or invention, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license (with rights to sublicense through multiple tiers of sublicensees) to make, have made, modify, use and sell such Prior Invention. Notwithstanding the foregoing, I agree that I will not incorporate, or permit to be incorporated, Prior Inventions in any Company product, process, application, machine or invention without the Company's prior written consent.

9. I represent that my performance of all the terms of this Agreement and that my employment by the Company does not and will not breach or constitute an event of default under any agreement (i) obligating me to keep in confidence proprietary information acquired by me in confidence or in trust prior to, or at any point throughout, my employment by the Company, (ii) obligating me to assign to or protect for the benefit of any third party any proprietary information or any improvement, invention, formulae, process, program, technique, know-how or data or (iii) that is designed in any way to limit my employment or activity in any business in which I may compete, directly or indirectly, with any other business, or which might by application have such an effect. I have not entered into, and I agree that I will not enter into, any agreement (either written or oral) in conflict herewith.

10. I understand, acknowledge and agree that, as part of the consideration for my employment or continued employment by the Company, I have not brought and will not bring with me to the Company or use in the performance of my responsibilities at or for the Company any equipment, supplies, facilities, trade secrets or other proprietary information of any former employer which are not generally available to the public, unless I have obtained (and provide herewith to the Company a copy of) written authorization for their possession and use.

11. I also understand that, during the course of my employment by the Company, I am not to breach any obligation of confidentiality that I have to others, and I agree that I shall fulfill all such obligations during my employment by the Company. A copy of any document reflecting any such obligation, or a description thereof if no document is available, is provided herewith to the Company.

12. I agree that during the term of my employment with the Company and for a period of twelve (12) months after Termination, I will not directly or indirectly: (i) induce or attempt to induce any employee or consultant of the Company to leave the employ of the Company or to otherwise end such employee's or consultant's relationships with the Company or (ii) other than on behalf of the Company, induce or attempt to induce any other person to terminate a relationship with the Company.

13. After Termination, I hereby consent to the notification of my new employer (if any) of my rights and obligations under this Agreement.

14. I acknowledge that, due to the uniqueness of my relationship with the Company, the Company would not have an adequate remedy at law for money damages in the event that this Agreement is not fully performed in accordance with its terms. I agree that in addition to any other rights and remedies available to the Company for any breach by me of my obligations hereunder, the Company shall be entitled to enforcement of my obligations hereunder by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief.

15. If any one or more of the provisions of this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect the other provisions of this Agreement and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein. If, moreover, any one or more of the provisions contained in this Agreement shall for any reason be held to be excessively broad as to duration, geographical scope, activity or subject, it shall be construed by limiting and reducing it, so as to be enforceable to the extent compatible with the applicable law as it shall then appear.

16. If applicable, this Agreement does not apply to inventions which qualify fully for protection under Section 2870 of the California Labor Code (which, if applicable, could apply to ideas or inventions for which no equipment, supplies, facility or trade secret information of the Company were used and which were developed entirely on my own time, and (i) which do not relate at the time of conception or reduction to practice of the invention (a) to the actual business of the Company, or (b) to the Company's actual or demonstrably anticipated research or development, or (ii) which do not result from any work performed by me for the Company). Notwithstanding the foregoing, I shall disclose in confidence to the Company any invention in order to permit the Company to make a determination as to compliance by me with the terms and conditions of this Agreement.

17. This Agreement shall be effective as of the first day of my employment by the Company and shall survive Termination. The term "**employment**" and the term or duration of my employment, as used herein and for purposes of this Agreement, shall include, without limitation, any consulting relationship between myself and the Company (including, if applicable, any such relationship which may follow the termination of my status as an employee of the Company or which may precede my status as an employee of the Company). Accordingly, notwithstanding any other provision of this Agreement to the contrary (and without limitation), a "**Termination**" shall not be deemed to have occurred if a consulting relationship persists following the termination of my status as an employee of the Company (if applicable).

18. The term "**Company**," as used herein, shall include any predecessor entity as well as any subsidiary or affiliate of the Company.

19. This Agreement shall be binding upon me, my heirs, executors, assigns and administrators and shall inure to the benefit of the Company, its successors and assigns.

20. This Agreement shall be governed by and construed in accordance with the internal laws of the State of California, without regard to the conflicts of law principles thereof.

I have read this Agreement carefully and understand its terms. The list of Prior Inventions attached on Exhibit A is complete.

Dated: September 26, 2000

Signature: /s/ Kenneth W. Locke

Name: Kenneth W. Locke, Ph.D.

Accepted and Agreed to

this 26th day of September, 2000

MediciNova, Inc., a Delaware corporation

By: /s/ Takashi Kiyoizumi

Takashi Kiyoizumi, M.D., Ph.D.

Its: President and CEO

Exhibit A

(Kenneth W. Locke, Ph.D.)

Prior Inventions

(a) Prior Inventions. Except as set forth in part (b) below, the following is a complete list of all Prior Inventions (as defined in Section 8 of the Proprietary Information and Inventions Agreement to which this Exhibit is attached) relevant to the present business of the Company:

X None.

r See below.

_____

_____

_____

_____

_____

_____

r Additional sheets attached.

(b) Confidential Prior Inventions. Due to a prior confidentiality agreement, I cannot complete the disclosure with respect to the inventions or improvements generally listed below, the proprietary rights and duty of confidentiality with respect to which I owe to the following party(ies):

	Invention or Improvement	**Party(ies)**	**Relationship**
1.			
2.			
3.			
4.			
5.			

r Additional Sheets Attached.

EXECUTIVE EMPLOYMENT AGREEMENT

(Mark Lotz)

This EXECUTIVE EMPLOYMENT AGREEMENT (this "**Agreement**") is made as of February 2**,** 2004 (the "**Effective Date**") by and between MEDICINOVA, INC, a Delaware corporation ("**MediciNova**"), and Mark Lotz ("**Executive**"), with reference to the following facts:

A. The Board of Directors of MediciNova (the "**Board**") has determined that it would be in the best interests of MediciNova to enter into this Employment Agreement on the terms herein set forth.

B. Executive is willing to serve as an employee of MediciNova upon the terms and conditions herein set forth. In respect of such employment, Executive has also executed that certain Proprietary Information and Inventions Agreement of even date herewith (the "**Proprietary Information and Inventions Agreement**"), which is attached hereto as Exhibit A and incorporated herein by reference as though fully set forth herein.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, the parties agree as follows:

1. Definitions. For purposes of this Agreement, the following terms shall have their respective meanings:

1.1 "**Cause**" shall mean (as shall reasonably be determined by the Board of Directors of the MediciNova - the "**Board**"): (i) any intentional failure to perform the Executive's obligations, services or duties under this Agreement or any other agreement or arrangement between the Executive and the MediciNova regarding employment or consulting services to be rendered by the Executive to the MediciNova, other than an immaterial violation which is remedied upon reasonable notice; (ii) failure to achieve performance levels for the MediciNova consistent with the MediciNova's goals, as determined by the Board in good faith and following appropriate inquiry; (iii) any violation of MediciNova policy, other than an immaterial violation which is remedied upon reasonable notice; (iv) any willful neglect of the Executive's duties to the MediciNova or gross misconduct; (v) any failure to protect the MediciNova's trade secrets; or (vi) any commission of any crime or criminal offense involving moral turpitude.

1.2 "**Total and Permanent Disability**" shall have the meaning ascribed to such term in Section 22 of the Internal Revenue Code of 1986, as amended.

2. Duties. Subject to the terms and provisions of this Agreement, Executive is employed by MediciNova as an executive employee of MediciNova. Executive's specific position shall be as the Vice President, Regulatory Affairs of MediciNova; provided, however, that the Executive may be reassigned by the Board to another executive position with MediciNova (or another position of similar responsibility) at such time as the Board (excluding Executive) reasonably agrees upon another Chief Executive Officer. Executive covenants to perform Executive's employment duties in good faith. Executive shall at all times during the

performance of this Agreement strictly adhere to and obey any and all rules and regulations now in effect or as subsequently adopted and/or modified governing the conduct of MediciNova employees and/or executives (the "**Employment Policies**"). In the event of any conflict between the provisions of this Agreement and any of the Employment Policies, the provisions of this Agreement shall control. A default under any the Employment Policies, except to the extent necessary or appropriate to comply with the provisions of this Agreement, shall be a default under this Agreement.

3. Exclusive Services. Executive's entire business time, attention, energies, skills, learning and best efforts shall be devoted to the business of MediciNova; provided, however, that this Section 3 shall not be construed as preventing Executive from participating in social, civic or professional associations or engaging in passive outside investment activities which may require a limited portion of time and effort to manage, consistent with any Employment Policies and so long as such activities do not interfere with the performance of Executive's duties nor compete, in any way, with the products or services offered by or through MediciNova.

4. Term of Employment. The term of this Agreement shall continue until such time as the employment of Executive is terminated pursuant to Section 7 below; provided, however, that this Agreement shall automatically terminate upon the death or Total and Permanent Disability of Executive.

5. Compensation. For all services rendered by Executive to MediciNova, MediciNova shall pay/provide to Executive the following:

- base compensation in the amount of $210,000 per annum (the "**Base Compensation**");
- periodic bonuses determined within the sole discretion of the Board (or any committee of the Board which is appointed to consider matters relating to executive compensation) but with reference to amounts paid to other executives and/or employees of MediciNova;
- grants of equity-based compensation within the sole discretion of the Board (or any committee of the Board which is appointed to consider matters relative to equity-based compensation);
- such group medical and life insurance and participation in other benefit plans as shall be made available for executives of MediciNova (with amounts and levels of participation therein determined with reference to other executives and/or employees of MediciNova); and
- an annual amount of vacation days consistent with amounts available for other executives of MediciNova (but, in any event, no fewer than 10 days) (collectively, the "**Compensation Package**").

6. Adjustments. The amount of Base Compensation may be adjusted as of each anniversary of the Effective Date (beginning on the first anniversary) by an amount upon which the Board and Executive shall mutually and reasonably agree at or about that time.

Compensation under the Compensation Package shall be paid to Executive less required deductions for Social Security, withholding taxes and other authorized deductions and at times when executives of MediciNova normally receive their compensation.

7. Termination. The employment of Executive may be terminated at any time by:

7.1 Mutual agreement of MediciNova and Executive evidenced in writing;

7.2 Action of the Board without prior notice to Executive if the Board reasonably shall establish that (i) Executive is in material default in the performance of Executive's obligations, services or duties hereunder, or has materially breached any provision of this Agreement, or (ii) MediciNova otherwise has Cause to terminate Executive's employment (although the right of termination of Executive's employment under this Section 7.2 shall not be in limitation of any other right or remedy MediciNova may have under this Agreement or otherwise);

7.3 Upon the death or Total and Permanent Disability of Executive; or

7.4 Upon 90 days' written notice by either party to the other indicating the desire of the notifying party, in its sole discretion, to terminate the employment of Executive hereunder; provided, however, that the MediciNova may not provide any such notice until _____.

8. Compensation Upon Termination. In the event that the employment of Executive is terminated pursuant to Section 7 above, Executive shall be terminated without compensation other than for accrued salary and other accrued amounts; provided, however, that if such employment is terminated at MediciNova's option pursuant to Section 7.4 above, then Executive shall be entitled to such severance payment(s) as shall be provided for (if any) by the Employment Policies in effect at that time; and provided, further, that in lieu of the 90 days' notice provided by Section 7.4 above, MediciNova may provide Executive with an amount equal to one-fourth (1/4) of Executive's annual Base Compensation which shall be applicable at the time of Executive's termination of employment with MediciNova. Except as provided in the immediately preceding sentence (if applicable), Executive is entitled to no other compensation upon termination.

9. Option to Hire Executive as Consultant. Upon any termination of Executive's employment under this Agreement, either pursuant to Section 7 above or otherwise, MediciNova shall have the option (in MediciNova's discretion) to engage Executive as a consultant on a quarterly basis commencing on the effective date of termination of Executive's employment (the "**Termination Date**") and continuing for a period of up to one (1) year following the Termination Date (or, if longer, the period terminating on the date which is three (3) years after the Effective Date). MediciNova's rights under this Section 9 shall lapse if MediciNova has not provided Executive with written notice of MediciNova's intent to exercise its rights hereunder prior to the later of (i) the Termination Date (e.g., in the event of a voluntary termination under Section 7.4 above) and (ii) 30 days following notice of such termination (e.g., in the event of an involuntary termination under Section 7.2 above). As a consultant, Executive's duties shall include devoting attention to those matters reasonably requested by the Board but which will not interfere (as to time required) with the opportunity to maintain other employment consistent with

this Section 9. During any period for which Executive is engaged to perform consulting services for MediciNova under this Section 9, Executive agrees that Executive shall not:

9.1 Carry on directly or indirectly, whether or not for compensation (as proprietor, partner, stockholder (except that a less than one percent (1%) ownership in a public corporation shall be permitted), officer, director, agent, employee, consultant, trustee, affiliate or otherwise), any business which is, or as a result of Executive's engagement or participation would become, competitive with or adverse to the business of MediciNova as it exists as of the Termination Date;

9.2 Permit Executive's name to be used by any business competitive in any respect with the business of MediciNova as it exists as of the Termination Date;

9.3 Solicit or divert, or attempt to call on, solicit or divert, any customer of MediciNova with whom Executive became acquainted during Executive's employment or affiliation with MediciNova, either for Executive or for any other person, firm or corporation; or

9.4 Induce or attempt to induce any person who is an employee, agent or consultant of MediciNova to leave the employ of MediciNova.

Without limiting the other provisions of this Agreement, (i) Executive acknowledges and agrees that it is impossible to measure in money the damages which will befall the MediciNova by reason of Executive's failure to perform any of the obligations set forth in this Section 9, (ii) Executive acknowledges that MediciNova shall be entitled to enforce Executive's obligations under this Section 9 by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief, (iii) Executive agrees (to the maximum extent permitted by law) to have the provisions of this Section 9 specifically enforced against Executive by any court of equity and (iv) Executive consents to the entry of injunctive relief against Executive enjoining or restraining any violation or threatened violation of the provisions of this Section 9.

10. Compensation for Consulting Services. For each quarter (i.e., three-month period) that Executive provides consulting services to MediciNova pursuant to the option of MediciNova contained in Section 9 above, MediciNova shall pay Executive a sum equal to fifteen percent (15%) of Executive's annual Base Compensation which shall be applicable at the time of Executive's termination of employment with MediciNova (prorated for any period of less than a quarter). The parties expressly agree that when Executive is performing consulting services for MediciNova, Executive is acting as an independent contractor. Therefore, Executive shall be solely liable for Social Security and income taxes that result from Executive's compensation as a consultant. In addition, Executive shall not be entitled to any other benefits including, without limitation, such group medical, life and disability insurance and other benefits as may be provided to employees and/or executives of MediciNova.

11. Dispute Resolution Procedure. Any dispute arising out of or related to the employment relationship created hereby, including the termination of that relationship and any allegations of unfair or discriminatory treatment arising under state or federal law or otherwise, to the maximum extent permitted by law, shall be resolved by final and binding arbitration, except where the law specifically forbids the use of arbitration as a final and binding remedy, or

where section (d) below specifically allows a different remedy. The following dispute resolution procedure shall apply:

11.1 The party claiming to be aggrieved shall furnish to the other party a written statement of the grievance identifying any witnesses or documents that support the grievance and the relief requested or proposed.

11.2 The responding party shall furnish a statement of the relief, if any, that it is willing to provide, and the witnesses or documents that support its position as to the appropriate action. The parties can mutually agree to waive this step. If the matter is not resolved at this step, the parties shall submit the dispute to non-binding mediation before a mediator to be jointly selected by the parties. MediciNova will pay the cost of the mediation.

11.3 If the mediation does not produce a resolution of the dispute, the parties agree that the dispute shall be resolved by final and binding arbitration. The parties shall attempt to agree to the identity of an arbitrator, and, if they are unable to do so, they will obtain a list of arbitrators from the Federal Mediation and Conciliation Service and select an arbitrator by striking names from that list. The arbitrator shall have the authority to determine whether the conduct complained of in subsection (a) of this section violates the rights of the complaining party and, if so, to grant any relief authorized by law, subject to the exclusions of subsection (d) below. The arbitrator shall not have the authority to modify, change or refuse to enforce the terms of any employment agreement between the parties. In addition, the arbitrator shall not have the authority to require MediciNova to change any lawful policy or benefit plan. The hearing shall be transcribed. MediciNova shall bear the costs of the arbitration if Executive prevails. If MediciNova prevails, Executive will pay half the cost of the arbitration or $500, whichever is less. Each party shall be responsible for paying its own attorneys fees.

Arbitration shall be the exclusive final remedy for any dispute between the parties, to the maximum extent permitted by law, including but not limited to disputes involving claims for discrimination or harassment (such as claims under the Fair Employment and Housing Act, Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, or the Age Discrimination in Employment Act), wrongful termination, breach of contract, breach of public policy, physical or mental harm or distress or any other disputes, and the parties agree that no dispute shall be submitted to arbitration where the party claiming to be aggrieved has not complied with the preliminary steps provided for in subsections (a) and (b) above.

The parties agree that the arbitration award shall be enforceable in any court having jurisdiction to enforce this Agreement, so long as the arbitrator's findings of fact are supported by substantial evidence on the whole and the arbitrator has not made errors of law; provided, however, that either party may bring an action in a court of competent jurisdiction regarding or related to matters involving MediciNova's confidential, proprietary or trade secret information, or regarding or related to inventions that Executive may claim to have developed prior to joining MediciNova or after joining MediciNova, pursuant to California Labor Code 2870. The parties further agree that, for violations of Executive's confidentiality, proprietary information or trade secret obligations which the parties have elected to submit to arbitration, MediciNova retains the right to seek preliminary injunctive relief in court in order to preserve the status quo or prevent irreparable injury before the matter can be heard in arbitration.

11.4 MediciNova reserves the right to modify, change or cancel this provision upon 30 days written notice. However, such cancellation shall not affect matters which have already been submitted to arbitration.

12. Confidentiality and Inventions. Executive recognizes that MediciNova has and shall continue to have and develop information, knowledge and rights regarding inventions, confidential information, products, services, future plans, business affairs, processes, trade secrets, technical matters, customer lists, experimental designs and items of intellectual property. Executive hereby confirms and ratifies the Proprietary Information and Inventions Agreement (which is incorporated herein by reference) and agrees to execute and deliver to MediciNova any other similar agreement(s) presented to Executive by MediciNova from time to time.

13. Section Headings. The section headings or captions in this Agreement are for convenience of reference only and do not form a part hereof, and do not in any way modify, interpret or construe the intent of the parties or affect any of the provisions of this Agreement.

14. Survival. The obligations and rights imposed upon the parties hereto by the provisions of this Agreement which relate to acts or events subsequent to the termination of this Agreement shall survive the termination of this Agreement and shall remain fully effective thereafter.

15. Severability. Should any one or more of the provisions of this Agreement or of any agreement entered into pursuant to this Agreement be determined to be illegal or unenforceable in any relevant jurisdiction, then such illegal or unenforceable provision shall be modified by the proper court, if possible, but only to the extent necessary to make such provision enforceable, and such modified provision and all other provisions of this Agreement and of each other agreement entered into pursuant to this Agreement shall be given effect separately from the provision or portion thereof determined to be illegal or unenforceable and shall not be affected thereby; provided, however, that any such modification shall apply only with respect to the operation of this Agreement in the particular jurisdiction in which such determination of illegality or unenforceability is made.

16. Waiver. The failure of either party to enforce any provision of this Agreement shall not be construed as a waiver of any such provision, nor prevent such party thereafter from enforcing such provision or any other provision of this Agreement. The rights granted both parties herein are cumulative and the election of one shall not constitute a waiver of such party's right to assert all other legal remedies available under the circumstances.

17. Parties in Interest. Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the parties hereto and the successors, assigns and affiliates of MediciNova, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any third person to any party to this Agreement, nor shall any provision give any third person any right of subrogation or action over or against any party to this Agreement.

18. Assignment. MediciNova may, in its sole discretion, assign its rights and obligations, in whole or in part, to any parent, subsidiary or affiliate of MediciNova. This Agreement shall

be binding upon the heirs, executors, successors and assigns of Executive. This Agreement contemplates the rendition of personal services by Executive and Executive may not assign this Agreement or delegate Executive's responsibilities hereunder.

19. Entire Agreement. Except for the Proprietary Information and Inventions Agreement and one or more similar agreements between MediciNova and Executive as may exist from time to time, this Agreement contains the entire agreement of the parties with respect to the subject matter hereof and no representation, inducement, promise or agreement, oral or otherwise, between the parties not embodied herein shall be of any force or effect. No modification, termination or attempted waiver shall be valid unless in writing and signed by the party against whom or which such modification, termination or waiver is sought to be enforced.

20. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

MediciNova:
MediciNova, Inc.,
a Delaware corporation

By: /s/ Takashi Kiyoizumi
Name: Takashi Kiyoizumi
Title: President and CEO

Executive:

By: /s/ Mark Lotz
Name: Mark Lotz

EXHIBIT A

[attached]

PROPRIETARY INFORMATION AND INVENTIONS AGREEMENT
(Mark Lotz)

MediciNova, Inc.
4370 LaJolla Village Drive
Suite 400
San Diego, California 92122

Ladies and Gentlemen:

I recognize that MediciNova, Inc., a Delaware corporation ("**MediciNova**"), possesses a body of existing technology and intellectual property rights and is engaged in a continuous program of research, development and production with respect to its business (present and future).

I understand that:

A. As part of my employment by MediciNova (with the term "**employment**", as used herein, to include any consulting relationship), I am expected to make new contributions and inventions of value to MediciNova.

B. I understand that my employment creates a relationship of confidence and trust between me and MediciNova and that my position places me in a unique position of access to the proprietary technology, trade secrets and research, development and business information:

(1) applicable to the business of MediciNova; or

(2) applicable to the business of any client, partner or customer of MediciNova,

which may be made known to me by MediciNova or by any client, partner or customer of MediciNova, or learned by me during the period of my employment.

C. MediciNova possesses and will continue to possess information that has been or will be created, discovered or developed, or has or will otherwise become known to MediciNova (including, without limitation, information created, discovered, developed or made known by or to me during the period of or arising out of my employment by MediciNova), and/or in which property rights have been or will be assigned or otherwise conveyed to MediciNova, which information has commercial value in the business in which MediciNova is engaged. All of the aforementioned information is hereinafter called "**Confidential Information**." By way of illustration, but not limitation, Confidential Information includes all data, compilations, blueprints, plans, audio and/or video recordings and/or devices, information on computer disks, software, tapes, printouts and other printed, typewritten or handwritten documents, specifications, strategies, systems, schemas, methods (including delivery, storage, receipt, transmission, presentation and manufacture of audio, video, informational or other data or content), business and marketing development plans, customer lists, research projections, processes, techniques, designs, sequences, components, programs, technology, ideas, know-how,

operations and maintenance, trade secrets, formulae, models, patent disclosures and any other information concerning the actual or anticipated business, research or development of MediciNova or its actual or potential customers or partners or which is or has been generated or received in confidence by or for MediciNova by or from any person; and all tangible and intangible embodiments thereof of any kind whatsoever including, where appropriate and without limitation, all compositions, machinery, apparatus, records, reports, drawings, copyright applications, patent applications, documents and samples, prototypes, models, products and the like.

In consideration of my employment or continued employment, as the case may be, and the compensation received by me from MediciNova from time to time, I hereby agree as follows:

1. All Confidential Information shall be the sole property of MediciNova and its assigns, and MediciNova and its assigns shall be the sole owner of all patents, copyrights and other rights in connection therewith. I hereby assign to MediciNova any rights I may have or acquire in all Confidential Information. At all times during my employment by MediciNova and at all times after termination of such employment, I will keep in confidence and trust all Confidential Information, and I will not disclose, sell, use, lecture upon or publish any Confidential Information or anything relating to it without the prior written consent of MediciNova, except as may be necessary in the ordinary course of performing my duties as an employee of (or consultant to) MediciNova.

2. Without limiting the terms of my employment with MediciNova, I agree that during the period of my employment by MediciNova I will not engage in any employment or activity in any business that is directly or indirectly competitive with MediciNova.

3. All documents, data, records, apparatus, equipment, sequences, components, programs and other physical property, whether or not pertaining to Confidential Information, furnished to me by MediciNova or produced by myself or others in connection with my employment shall be and remain the sole property of MediciNova and shall be returned promptly to MediciNova as and when requested by MediciNova. Should MediciNova not so request, I shall return and deliver all such property upon termination of my employment by me or by MediciNova for any reason ("**Termination**") and I will not take with me any such property, any reproduction of such property or any materials or products derived from such property.

4. I shall promptly disclose any outside activities or interests, including any ownership or participation in the development of prior inventions, that conflict or may conflict with the interests of MediciNova. I understand that I am required to make such disclosures promptly if the activity or interest is related, either directly or indirectly, to (i) an area of research, development, service, product or product line of MediciNova, (ii) a manufacturing, development or research methodology or process of MediciNova or (iii) any activity that I may be involved with on behalf of MediciNova.

5. I shall promptly disclose to MediciNova, or any persons designated by it, all improvements, inventions, formulae, processes, programs, techniques, know-how and data, whether or not patentable or copyrightable, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with MediciNova which are related to or useful in the business of MediciNova, or result from tasks assigned me by MediciNova, or result from use of premises owned, leased or contracted for by MediciNova (all said improvements, inventions, formulae, processes, techniques, know-how and data shall be

collectively hereinafter called "**Inventions**"). Such disclosure shall continue for one year after Termination with respect to anything that would be an Invention if made, conceived, reduced to practice or learned prior to Termination.

6. I agree that all Inventions shall be the sole property of MediciNova and its assigns, and MediciNova and its assigns shall be the sole owner of all patents, copyrights and other rights in connection therewith and all Confidential Information with respect thereto. I hereby assign to MediciNova any and all rights I may have or acquire in all Inventions, including all rights that may be known as or referred to as "**moral rights**." I further agree as to all Inventions to assist MediciNova in every proper way (but at MediciNova's expense) to obtain and from time to time enforce patents and copyrights on the Inventions in any and all countries, and to that end I will execute all documents for use in applying for and obtaining such patents and copyrights thereon and enforcing the same, as MediciNova may desire, together with any assignments thereof to MediciNova or persons designated by it. My obligation to assist MediciNova in obtaining and enforcing patents and copyrights for the Inventions in any and all countries shall continue beyond Termination, but MediciNova shall compensate me at a reasonable rate after Termination for time actually spent by me at MediciNova's request on such assistance. In the event that MediciNova is unable for any reason whatsoever to secure my signature to any lawful and necessary document required to apply for or execute any patent or copyright application with respect to Inventions (including renewals, extension, continuations, divisions or continuations in part thereof), I hereby irrevocably designate and appoint MediciNova and its duly authorized officers and agents, as my agents and attorneys-in-fact to act for and in my behalf and instead of me, to execute and file any such application and to do all other lawfully permitted acts to further the prosecution and issuance of patents or copyrights thereon with the same legal force and effect as if executed by me.

7. As a matter of record I have identified beneath by signature hereto a complete list of all inventions or improvements relevant to the subject matter of my employment by MediciNova which have been made or conceived or first reduced to practice by me alone or jointly with others prior to my employment by MediciNova (**"Prior Inventions"**) which I desire to remove from the operation of this Agreement; and I covenant that such list is complete. If no such list is identified, I represent that I have made no such Prior Inventions at the time of the commencement of my employment by MediciNova. Notwithstanding the foregoing, and without limiting the other provisions of this Agreement, I agree that (i) any improvements or new inventions to the item(s) so identified on such list (if any) shall be treated as Inventions for purposes of this Agreement if the provisions of Section 5 above are otherwise applicable and (ii) if, in the course of my employment with MediciNova, I incorporate a Prior Invention into a MediciNova product, process, application, machine or invention, the MediciNova is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license (with rights to sublicense through multiple tiers of sublicensees) to make, have made, modify, use and sell such Prior Invention. Notwithstanding the foregoing, I agree that I will not incorporate, or permit to be incorporated, Prior Inventions in any MediciNova product, process, application, machine or invention without MediciNova's prior written consent.

8. I represent that my performance of all the terms of this Agreement and that my employment by MediciNova does not and will not breach or constitute an event of default under any agreement (i) obligating me to keep in confidence proprietary information acquired by me in confidence or in trust prior to, or at any point throughout, my employment by MediciNova, (ii)

obligating me to assign to or protect for the benefit of any third party any proprietary information or any improvement, invention, formulae, process, program, technique, know-how or data or (iii) that is designed in any way to limit my employment or activity in any business in which I may compete, directly or indirectly, with any other business, or which might by application have such an effect. I have not entered into, and I agree that I will not enter into, any agreement (either written or oral) in conflict herewith.

9. I understand, acknowledge and agree that, as part of the consideration for my employment or continued employment by MediciNova, I have not brought and will not bring with me to MediciNova or use in the performance of my responsibilities at or for MediciNova any equipment, supplies, facility or trade secret or other proprietary information of any former employer which are not generally available to the public, unless I have obtained (and provide herewith to MediciNova a copy of) written authorization for their possession and use.

10. I also understand that, in my employment by MediciNova, I am not to breach any obligation of confidentiality that I have to others, and I agree that I shall fulfill all such obligations during my employment by MediciNova. A copy of any document reflecting any such obligation, or a description thereof if no document is available, is provided herewith to MediciNova.

11. I agree that during the term of my employment with MediciNova and for a period of twelve (12) months after Termination, I will not directly or indirectly: (i) induce or attempt to induce any employee or consultant of MediciNova to leave the employ of MediciNova or to otherwise end such employee's or consultant's relationships with MediciNova, or (ii) other than on behalf of MediciNova, induce or attempt to induce any other person to terminate a relationship with MediciNova.

12. I acknowledge that, due to the uniqueness of my relationship with MediciNova, MediciNova would not have an adequate remedy at law for money damages in the event that this Agreement is not fully performed in accordance with its terms. I agree that in addition to any other rights and remedies available to MediciNova for any breach by me of my obligations hereunder, MediciNova shall be entitled to enforcement of my obligations hereunder by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief.

13. If any provision of this Agreement shall be declared invalid, illegal or unenforceable, such provision shall be severed and all remaining provisions shall continue in full force and effect.

14. If applicable, this Agreement does not apply to inventions which qualify fully for protection under Section 2870 of the California Labor Code (which, if applicable, could apply to ideas or inventions for which no equipment, supplies, facility or trade secret information of MediciNova were used and which were developed entirely on my own time, and (1) which do not relate at the time of conception or reduction to practice of the invention (a) to the actual business of MediciNova, or (b) to MediciNova's actual or demonstrably anticipated research or development, or (2) which do not result from any work performed by me for MediciNova). Notwithstanding the foregoing, I shall disclose in confidence to MediciNova any invention in order to permit MediciNova to make a determination as to compliance by me with the terms and conditions of this Agreement.

15. This Agreement shall be effective as of the first day of my employment by MediciNova. The term "**employment**" and the term or duration of my employment, as used herein and for purposes of this Agreement, shall include, without limitation, any consulting relationship between myself and MediciNova (including, if applicable, any such relationship which may follow the termination of my status as an employee of MediciNova or which may precede my status as an employee of MediciNova). Accordingly, notwithstanding any other provision of this Agreement to the contrary (and without limitation), a "**Termination**" shall not be deemed to have occurred if a consulting relationship persists following the termination of my status as an employee of MediciNova (if applicable).

16. The term MediciNova, as used herein, shall include any subsidiary or affiliate of MediciNova.

17. This Agreement shall be binding upon me, my heirs, executors, assigns and administrators and shall inure to the benefit of MediciNova, its successors and assigns.

18. This Agreement shall be governed by and construed in accordance with the internal laws of the State of California, without regard to the conflicts of law principles thereof.

Dated: February 2, 2004

/s/ Mark Lotz
Name: Mark Lotz

Prior Inventions:

Accepted and Agreed to
this 2nd day of February, 2004.

MediciNova, Inc.

By: /s/ Takashi Kiyoizumi
Name: Takashi Kiyoizumi
Title: President and CEO

EXHIBIT 10.16

MediciNova, Inc.
4350 La Jolla Village Drive
Suite 950
San Diego, CA 92122

April 26, 2004

Dr. Joji (George) Suzuki
267-2 Yamate-cho, Naka-ku,
Yokohama, Kanagawa 231-0862
JAPAN

Dear Dr. Suzuki:

This letter sets forth the basic terms and conditions of your employment with MediciNova, Inc., a Delaware corporation (the "Company") and is contingent upon the results of your background check. Your effective date of hire will be Monday, May 10, 2004. By signing this letter, you will be agreeing to the terms set forth in this letter. It is important that you understand clearly both what your benefits are and what the Company expects of you.

1. Salary. Your salary will initially be set at $15,000 monthly. Any amounts paid as salary may be subject to regular payroll deductions, if applicable, and will be paid on a monthly basis. As a general matter, your salary will be reviewed annually, but the Company reserves the right to change your compensation from time to time on reasonable notice. You will receive an annual discretional, performance-based bonus at the end of the year of up to 20% of the base salary and up to $10,000 of relocation support if there is a move within Japan within 12 months of hire. In addition, you will be granted 100,000 shares of stock options under the 2000 stock option plan, vesting over 4 years. (plan documents will be provided.)

2. Duties. Your job title will be Senior Director, Finance, reporting to the CEO.

As an employee of the Company, you are required to exercise your specialized expertise, independent judgment and discretion to provide high-quality services. You are also required to follow office policies and procedures adopted from time to time by the Company and to take such general direction as you may be given from time to time by your superiors. The Company reserves the right to change these policies and procedures at any time. (*See also* Term of Employment in Paragraph 7 below).

Normal business hours of the Company are from 8:30a.m. to 5:00 p.m. Monday through Friday. However, these hours may change as needed to meet the business needs of the Company. As an employee exempt from overtime pay, you are expected to work the number of hours required to get the job done.

3. Other Activity. You may engage in outside consulting or advisory work on your own time, upon prior written consent of the CEO, provided that it does not interfere with your work and provided that it is not competitive with the Company or that it will not create a conflict of interest with the Company, or that it will not otherwise interfere with the business of the Company, or any affiliate of the Company, or your duties as an employee of the Company.

4. Proprietary Information Agreement. You will be required to sign and abide by the terms of the attached Proprietary Information and Inventions Agreement, which is incorporated into this agreement by reference as Exhibit A.

5. Representations and Warranties of Employee. You represent and warrant to the Company that you are not subject to any non-compete, non-solicitation, or non-disclosure agreements with third parties that will prohibit or restrict your employment by the Company, the performance of your duties as an employee, or that will require the disclosure of any third party's confidential information. You further agree to indemnify and hold the Company harmless from and against any claims, damages, liabilities, or expenses, including attorneys' fees, if at any time your representations in this regard shall cease to be true and accurate. You further represent and warrant that all information provided to the Company during your application for employment, including your application and resume, is true and correct.

6. Employee Benefits. You will be eligible to receive 3 weeks annual paid time off ("PTO") from work for vacations, personal business, personal illness or family business in accordance with the Company's current "PTO" policy and holidays. You will receive a benefits adjustment for $15,000, equally divided monthly. You will also be eligible for life and disability insurance. You will be responsible to take the necessary steps to ensure that you are covered by workers' compensation insurance, unemployment, and pension and welfare under the Japanese system. The Company will contribute 50% of the premium cost as required by Japanese law.

7. Term of Employment. Your employment with the Company is "**at-will**." This means that either you or the Company can terminate your employment at any time for any reason, with or without cause. As per Japanese Labor Standards Law, the Company will provide at least 30-days prior dismissal notice or 30-days pay in lieu thereof or a combination of such notice and pay requirements. In addition, you, the employee, will give the Company 8 weeks notice of your intention to leave the company's employ. At-will employment, but for "not-for-cause" termination, the company will provide 6 months of severance after completion of a probationary period after 3 months of employment that will be canceled upon your new employment after termination.

Other than the CEO of the Company, no one may make any agreement for any relationship other than "at will," and any such agreement must be in writing signed by the President. No implied contract concerning the duration of your position with the Company can arise or be created by any means, including any statement, conduct, policy or practice. All other terms and conditions of your position with the Company may be modified at the sole discretion of the Company with or without cause and with or without notice. Examples of the types of such terms and conditions which are within the sole discretion of the Company include, but are not limited to, the following: promotion; demotion; transfers; hiring decision; compensation; benefits; qualifications; discipline; layoff or recall; rules; hours and schedules; work assignments; job duties and responsibilities; production standards; subcontracting; reduction, cessation or expansion of operations; sale, relocation, merger or consolidation of operations; determinations

concerning the use of equipment, methods or facilities; or any other terms and conditions that the Company may determine to be necessary for the safe, efficient and economic operation of its business. Other than the CEO, no one may make any agreement limiting the Company's discretion to modify such other terms and conditions. Only the CEO may make any such agreement and then only in writing. No implied contract concerning any such other term or condition of your relationship with the Company can be established by any other statement, conduct, policy or practice.

8. Resolution of Disputes. You agree that any controversy or claim arising out of or relating to this agreement or any other written agreement between you and the Company, the actual or alleged breach of any such agreement, or the relationship between you and the Company shall, to the fullest extent authorized by law, be resolved through binding arbitration in San Diego, California. Such arbitration shall be conducted pursuant to the Company's Arbitration Policy & Agreement, a copy of which is attached hereto and incorporated herein by reference as Exhibit B. Arbitration shall be the exclusive and binding dispute resolution process between you and the Company. All decisions of the arbitrator shall be final, binding, and conclusive on all parties.

You acknowledge that by agreeing to the Company's Arbitration Policy, both you and the Company are waiving their respective rights to have disputes resolved in a court of law and to a jury trial with respect to claims rising from or relating to this agreement, including claims encompassed by the arbitration agreement, and are proceeding with an adjudication process with limited discovery rights and limited appeal rights. A neutral arbitrator, rather than a judge or jury, will decide the dispute.

9. Integrated Agreement. This Agreement supersedes any prior agreements, representations or promises of any kind, whether written, oral, express or implied between the parties hereto with respect to the subject matters herein. It constitutes the full, complete and exclusive agreement between you and the Company with respect to the subject matters herein. This Agreement cannot be changed unless in writing, signed by you and the President of the Company. Notwithstanding the foregoing, nothing in this Agreement limits, amends or supersedes the Proprietary Information and Inventions Agreement or the Arbitration Policy & Agreement entered into between the Company and Employee.

10. Choice of Law/Venue. The formation, construction, and performance of this Agreement will be construed in accordance with the laws of Japan. The parties agree that the venue for any proceeding related to or arising out of this Agreement shall be San Diego, California.

11. Construction/Breach. This Agreement shall not be construed for or against either party on the ground that such party, or its legal representative, drafted the Agreement or any portion thereof. The waiver of any breach of this Agreement by either party shall not constitute a waiver of consent to any further or subsequent breach by any party.

12. Severability. If any term of this Agreement is held to be invalid, void or unenforceable, the remainder of this Agreement shall remain in full force and effect and shall in no way be affected; and, the parties shall use their best efforts to find an alternative way to achieve the same result.

Joji, we look forward to having you join the Company. In order to confirm your agreement with and acceptance of these terms, please sign one copy of this letter and return it to me. The other copy is for your records. If there is any matter in this letter, which you wish to discuss further, please do not hesitate to speak to me.

Very truly yours,

By: /s/ Takashi Kiyoizumi

Takashi Kiyoizumi, M.D., Ph.D.
President & CEO
MediciNova, Inc.

I agree to the terms of employment set forth in this Agreement.

/s/ Joji Suzuki

Signature: _____ May 10th, 2004

Name: Joji Suzuki Date

EXHIBIT A

Proprietary Information and Inventions Agreement

MediciNova, Inc.

MediciNova, Inc.
4350 La Jolla Village Drive, Suite 950
San Diego, California 92122

Ladies and Gentlemen:

I recognize that MediciNova, Inc., a Delaware corporation (the "**Company**"), possesses a body of existing technology and intellectual property rights and is engaged in a continuous program of research, development and production with respect to its business (present and future).

I understand that:

A. As part of my employment by the Company (with the term "**employment**," as used herein, to include any consulting relationship), I am expected to make new contributions and inventions of value to the Company.

B. My employment creates a relationship of confidence and trust between me and the Company and that my position places me in a unique position of access to the proprietary technology, trade secrets and research, development and business information:

(1) applicable to the business of the Company; or

(2) applicable to the business of any client, partner or customer of the Company,

which may be made known to me by the Company or by any client, partner or customer of the Company, or learned by me during the period of my employment.

C. The Company has or will acquire information, which is not generally known to the public, which has commercial value to the Company, and which has been or will be created, discovered or developed by others or me. Additionally, the Company has or will acquire information from third parties such as clients, partners or customers which also has commercial value to the Company and which has been received by the Company in confidence. All of the aforementioned information is hereinafter called "Confidential Information."

By way of illustration and not limitation, Confidential Information includes all data (except that which is publicly available), formula, research work product, inventions (whether or not patentable or copy writable), compilations, blueprints, plans, audio

and/or video recordings and/or devices, information on computer disks, software, tapes, printouts and other printed, typewritten or handwritten documents, specifications, strategies, systems, schemas, methods (including delivery, storage, receipt, transmission, presentation and manufacture of audio, video, informational or other data or content), business and marketing development plans, customer lists, budgets and unpublished financial statements, licenses and license agreements, research projections, processes, techniques, designs, sequences, components, programs, technology, ideas, know-how, improvements, inventions (whether or not patentable or copyrightable), information about operations and maintenance, trade secrets, formulae, models, patent disclosures, information regarding the skills and compensation of other employees of the Company and other information concerning the actual or anticipated business, research or development of the Company or its actual or potential clients, partners, customers or affiliated entities or which is or has been generated or received in confidence by or for the Company by or from any person; and all tangible and intangible embodiments thereof of any kind whatsoever including, where appropriate and without limitation, all compositions, machinery, apparatus, records, reports, drawings, copyright applications, patent applications, documents, samples, prototypes, models, products and the like. Information, and information regarding the specific needs, programs and business of the Company's clients, partners, customers or affiliated entities. "Confidential Information" can also include information which is publicly available, if such information is being used in a unique or non-publicly known fashion, or in combination with other information, in a way that is not generally known to competitors or to the scientific community. "Confidential Information" includes all tangible and intangible embodiments of the information listed in this paragraph including all writings, electronically-stored data and information maintained or stored in any mode or fashion.

In consideration of my employment or continued employment, as the case may be, and the compensation received by me from the Company from time to time, I hereby agree as follows:

All Confidential Information shall be the sole property of the Company and its assigns. The Company and its assigns shall be the sole owner of all trade secrets, patents, copyrights and other rights in connection therewith. I hereby assign to the Company any rights I may have or acquire in all Confidential Information. At all times during my employment by the Company and at all times after termination of my employment by me or by the Company for any reason ("**Termination**"), I will hold in confidence and trust all Confidential Information. I will not disclose, sell, use, lecture upon or publish any Confidential Information or anything relating to it without the prior written consent of the Company, except as may be necessary in the ordinary course of performing my duties as an employee of (or consultant to) the Company.

Without limiting the terms of my employment with the Company, I agree that during the period of my employment by the Company I will not engage in any

employment or activity in any business that is directly or indirectly competitive with the Company or would otherwise conflict with my employment by the Company.

All documents, data, records, apparatus, equipment, sequences, components, programs and other physical property, whether or not pertaining to Confidential Information, furnished to me by the Company or produced by myself or others in connection with my employment shall be and remain the sole property of the Company and shall be returned promptly to the Company as and when requested by the Company. Even should the Company not so request, I shall return and deliver all such property upon Termination and I will not take with me any such property, any reproduction of such property or any materials or products derived from such property. I further agree that any property situated on the Company's premises and owned by the Company, including disks and other storage media, filing cabinets or other work areas, is subject to inspection and search by Company personnel at any time with or without notice.

I shall promptly disclose any outside activities or interests, including any ownership or participation in the development of Prior Inventions (as defined in Section 8 below), that conflict or may conflict with the interests of the Company. I understand that I am required to make such disclosures promptly if the activity or interest is related, either directly or indirectly, to (i) an area of research, development, service, product or product line of the Company, (ii) a manufacturing, development or research methodology or process of the Company or (iii) any activity that I may be involved with on behalf of the Company.

I shall promptly disclose to the Company, or any persons designated by it, all improvements, inventions, formulae, processes, programs, techniques, know-how, data and the like, whether or not patentable or copyrightable, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with the Company which are related to or useful in the business of the Company, or result from tasks assigned to me by the Company, or result from use of premises owned, leased or contracted for by the Company (all said improvements, inventions, formulae, processes, techniques, know-how, data and the like shall be collectively hereinafter called "**Inventions**"). Such disclosure shall continue for one year after Termination with respect to anything that would be an Invention if made, conceived, reduced to practice or learned prior to Termination.

I agree to keep and maintain adequate and current records (in the form of notes, sketches, laboratory notebooks or records, documentation, drawings and in any other form that may be required by the Company) of all Confidential Information developed by me and all Inventions made by me during the period of my employment at the Company, which records shall be made available to and remain the sole property of the Company at all times.

I agree that all Inventions shall be the sole property of the Company and its assigns, and the Company and its assigns shall be the sole owner of all trade

secrets, patents, copyrights and other rights in connection therewith and all Confidential Information with respect thereto. I hereby assign to the Company any and all rights I may have or acquire in all Inventions, including all rights that may be known as or referred to as "moral rights." I also acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by copyright are "works made for hire" pursuant to the United States Copyright Act (17 U.S.C. Section 101), as amended. I further agree as to all Inventions to assist the Company in every proper way (but at the Company's expense) to obtain and from time to time enforce patents and copyrights on Inventions in any and all countries, and to that end I will execute all documents for use in applying for and obtaining such patents and copyrights thereon and enforcing the same, as the Company may desire, together with any assignments thereof to the Company or persons designated by it. My obligation to assist the Company in obtaining and enforcing patents and copyrights for Inventions in any and all countries shall continue beyond Termination, but the Company shall compensate me at a reasonable rate after Termination for time actually spent by me at the Company's request on such assistance. In the event that the Company is unable for any reason whatsoever to secure my signature to any lawful and necessary document required to apply for or execute any patent or copyright application with respect to Inventions (including renewals, extension, continuations, divisions, continuations in part or preservation of rights in respect thereof), I hereby irrevocably designate and appoint the Company, and its duly authorized officers and agents, as my agents and attorneys-in-fact to act for and in my behalf and instead of me, to execute and file any such application and to do all other lawfully permitted acts to further the prosecution and issuance of patents or copyrights thereon with the same legal force and effect as if executed by me.

As a matter of record I have identified on Exhibit A hereto a complete list of all inventions or improvements relevant to the subject matter of my employment by the Company which have been made or conceived or first reduced to practice by me, alone or jointly with others, prior to my employment by the Company ("**Prior Inventions**") which I desire to remove from the operation of this Agreement. If disclosure of any such Prior Invention would cause me to violate any prior confidentiality agreement, I understand that I am not to list such Prior Invention on Exhibit A hereto but am only to disclose a cursory name for each such Prior Invention, a listing of the party(ies) to whom it belongs and the fact that full disclosure as to such Prior Inventions has not been made for that reason. I represent that my list of Prior Inventions is complete. If no such list of Prior Inventions is identified, I represent that I have made no such Prior Inventions at the time of the commencement of my employment by the Company. Notwithstanding the foregoing, and without limiting the other provisions of this Agreement, I agree that (i) any improvements or new inventions to the item(s) so identified on such list (if any) shall be treated as Inventions for purposes of this Agreement if the provisions of Section 5 above are otherwise applicable and (ii) if, in the course of my employment with the Company, I incorporate a Prior Invention into a Company product, process, application, machine or invention, the Company is hereby

granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license (with rights to sublicense through multiple tiers of sublicensees) to make, have made, modify, use and sell such Prior Invention. Notwithstanding the foregoing, I agree that I will not incorporate, or permit to be incorporated, Prior Inventions in any Company product, process, application, machine or invention without the Company's prior written consent.

If applicable, this Agreement does not apply to inventions which qualify fully for protection under Section 2870 of the California Labor Code (which, if applicable, could apply to ideas or inventions for which no equipment, supplies, facility or trade secret information of the Company were used and which were developed entirely on my own time, and (i) which do not relate at the time of conception or reduction to practice of the invention (a) to the actual business of the Company, or (b) to the Company's actual or demonstrably anticipated research or development, or (ii) which do not result from any work performed by me for the Company). Notwithstanding the foregoing, I shall disclose in confidence to the Company any invention in order to permit the Company to make a determination as to my compliance with the terms and conditions of this Agreement.

I represent that my performance of the terms of this Agreement and my employment by the Company does not and will not breach any agreement (i) obligating me to keep in confidence proprietary information acquired by me in confidence or in trust prior to, or at any point throughout, my employment by the Company, (ii) obligating me to assign to or protect for the benefit of any third party any proprietary information or any improvement, invention, formulae, process, program, technique, know-how or data or (iii) that is designed in any way to limit my employment or activity in any business in which I may compete, directly or indirectly, with any other business, or which might by application have such an effect. I have not entered into, and I agree that I will not enter into, any agreement (either written or oral) in conflict herewith.

I understand, acknowledge and agree that, as part of the consideration for my employment or continued employment by the Company, I have not brought and will not bring with me to the Company or use in the performance of my responsibilities at or for the Company any equipment, supplies, facilities, trade secrets or other proprietary information of any former employer which are not generally available to the public, unless I have obtained (and provide herewith to the Company a copy of) written authorization for their possession and use.

I also understand that, during the course of my employment by the Company, I am not to breach any obligation of confidentiality to others, and I agree that I shall fulfill all such obligations during my employment by the Company. A copy of any document reflecting any such obligation, or a description thereof if no document is available, is provided herewith to the Company.

I agree that during the term of my employment with the Company and for a period of twelve (12) months after Termination, I will not directly or indirectly: (i) induce or attempt to induce any employee or consultant of the Company to leave the employ of the Company or to otherwise end such employee's or consultant's relationships with the Company or (ii) other than on behalf of the Company, induce or attempt to induce any other person to terminate a relationship with the Company.

After Termination, I hereby consent to the notification of my new employer (if any) of my rights and obligations under this Agreement.

I acknowledge that, due to the uniqueness of my relationship with the Company, the Company would not have an adequate remedy at law for money damages in the event that this Agreement is not fully performed in accordance with its terms. I agree that in addition to any other rights and remedies available to the Company for any breach by me of my obligations hereunder, the Company shall be entitled to enforcement of my obligations hereunder by court injunction (without the posting of a bond or other security), specific performance or other appropriate equitable relief.

If any one or more of the provisions of this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect the other provisions of this Agreement and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein. If, moreover, any one or more of the provisions contained in this Agreement shall for any reason be held to be excessively broad as to duration, geographical scope, activity or subject, it shall be construed by limiting and reducing it, so as to be enforceable to the extent compatible with the applicable law as it shall then appear.

This Agreement shall be effective as of the first day of my employment by the Company and shall survive Termination. The term "**employment**" and the term or duration of my employment, as used herein and for purposes of this Agreement, shall include, without limitation, any consulting relationship between myself and the Company (including, if applicable, any such relationship which may follow the termination of my status as an employee of the Company or which may precede my status as an employee of the Company). Accordingly, notwithstanding any other provision of this Agreement to the contrary (and without limitation), a "**Termination**" shall not be deemed to have occurred if a consulting relationship persists following the termination of my status as an employee of the Company (if applicable).

This Agreement does not constitute a contract of employment for a specific term. The employment relationship between the Company and me remains a relationship of employment at will, which may be terminated by either party with or without cause.

This Information and Inventions Agreement supercedes any previous agreements on the same subject hereof between me and the Company. However, it does not effect or supercede any written employment contracts, stock option agreements or other written agreements between me and the Company not addressing the subject of the Company's intellectual property, proprietary information, confidential information, inventions or obligations regarding the same.

This Agreement shall not be construed for or against any party on the ground that such party or its legal representative, drafted this Agreement or any provision hereof. The waiver of any breach of any provision of this Agreement by either party shall not constitute a waiver or consent to any further or subsequent breach by any party.

The term "**Company**," as used herein, shall include any predecessor entity as well as any subsidiary or affiliate of the Company.

This Agreement shall be binding upon me, my heirs, executors, assigns and administrators and shall inure to the benefit of the Company, its successors and assigns.

This Agreement shall be governed by and construed in accordance with the laws of Japan, without regard to the conflicts of law principles thereof.

I have read this Agreement carefully and understand its terms. The list of Prior Inventions attached on Exhibit A is complete.

Dated: May 10, 2004

Signature: /s/ Joji Suzuki

Name: Joji Suzuki

Accepted and Agreed to this 10th day of May, 2004

MediciNova, Inc., a Delaware corporation

By: /s/ Takashi Kiyoizumi

Takashi Kiyoizumi, M.D., Ph.D.

Its: President and CEO

Exhibit A

(*A)

Prior Inventions

(c) Prior Inventions. Except as set forth in part (b) below, the following is a complete list of all Prior Inventions (as defined in Section 8 of the Proprietary Information and Inventions Agreement to which this Exhibit is attached) relevant to the present business of the Company:

X None.

r See below.

_____

_____

_____

_____

_____

_____

r Additional sheets attached.

(d) Confidential Prior Inventions. Due to a prior confidentiality agreement, I cannot complete the disclosure with respect to the inventions or improvements generally listed below, the proprietary rights and duty of confidentiality with respect to which I owe to the following party(ies):

	Invention or Improvement	**Party(ies)**	**Relationship**
1.			
2.			
3.			
4.			
5.			

r Additional Sheets Attached.

EXHIBIT B

Arbitration Policy And Agreement

1. Both MediciNova, Inc. (the "Company") and the undersigned Employee, Joji Suzuki, (collectively referred to as the "Parties") acknowledge and agree that in the event disputes arise between them, both Parties will be bound by this Arbitration Agreement which provides for final and binding arbitration for disputes arising out of or relating to the Employee's employment with the Company, the termination of his or her employment, and/or any agreements previously or hereafter entered into between Employee and the Company.

BOTH THE COMPANY AND THE UNDERSIGNED EMPLOYEE EXPRESSLY WAIVE ANY RIGHT THAT EITHER PARTY HAS OR MAY HAVE TO A CIVIL JURY TRIAL OF ANY DISPUTE ARISING OUT OF OR IN ANY WAY RELATED TO THE EMPLOYEE'S EMPLOYMENT WITH THE COMPANY, INCLUDING CLAIMS OF DISCRIMINATION AND HARASSMENT. ONLY AN ARBITRATOR, NOT A JUDGE OR JURY, WILL DECIDE ANY SUCH DISPUTE.

BOTH PARTIES AGREE THAT NO ACTION MAY BE BROUGHT IN COURT EXCEPT ACTIONS TO COMPEL ARBITRATION, TO OBTAIN THE DISMISSAL OF ACTIONS FILED IN COURT IN CONTRAVENTION OF THIS ARBITRATION AGREEMENT, OR TO SEEK TEMPORARY INJUNCTIVE RELIEF AS MAY BE ALLOWED BY STATE OR FEDERAL LAW.

THE COMPANY'S OFFICERS, MANAGERS, SUPERVISORS, EMPLOYEES, PREDECESSORS, SUCCESSORS AND ASSIGNS SHALL BE A PARTY TO AND BOUND BY THIS ARBITRATION AGREEMENT. ANY CLAIMS BETWEEN EMPLOYEE AND THE COMPANY'S OFFICERS, MANAGERS, SUPERVISORS, EMPLOYEES, PREDECESSORS, SUCCESSORS AND ASSIGNS THAT ARISE OUT OF OR RELATE TO EMPLOYEE'S EMPLOYMENT WITH THE COMPANY SHALL ALSO BE SETTLED BY FINAL AND BINDING ARBITRATION.

THE PARTIES AGREE THAT THIS ARBITRATION AGREEMENT IS ENTERED INTO, INTENDED TO COMPLY WITH, AND IS ENFORCEABLE PURSUANT TO THE PROVISIONS OF THE FEDERAL ARBITRATION ACT ("FAA"), 9 U.S.C. § 1, *ET SEQ*.

2. The purpose of this Arbitration Agreement is to encourage the speedy, cost-effective and confidential resolution of any disputes covered by this Arbitration Agreement between the Company and Employee concerning any of the terms, conditions, benefits and/or termination of employment. The claims covered by this Arbitration Agreement include, but are not limited to claims for wages and other compensation, claims for breach of any contract, tort claims, claims for discrimination and/or harassment (including but not limited to race, color, sex, religion, national origin, age, marital status, citizenship status, sexual orientation, medical condition or disability), claims for violation of any public policy, claims for benefits, claims for wrongful termination, claims for the return of Company funds or property, claims for breach of duty of loyalty, claims for unfair competition and misappropriation of trade secrets, and claims for violation of any law, statute, regulation or ordinance.

Claims that Employee may have for workers' compensation or unemployment insurance benefits are **not** covered by this Arbitration Agreement. This Arbitration Agreement also excludes from its coverage claims based on any state or federal law that have been determined by the controlling judicial authority of appropriate jurisdiction not to be arbitrable pursuant to pre-dispute arbitration agreements such as this Arbitration Agreement.

Title VII claims are covered by this Arbitration Agreement to the extent authorized by law. Title VII is the federal statute that prohibits discrimination on the basis of race, color, religion, sex, national origin as well as retaliation for opposing such discrimination.

3. The consideration for this Agreement shall include the Parties' mutual desire and exchange of promises to arbitrate their disputes rather than litigate them before courts or other bodies as well as the Company's initial employment or continued employment of Employee.

4. Nothing in this Arbitration Agreement restricts the Employee from exercising statutory rights to seek assistance through resort to state and federal agencies including the Equal Employment Opportunity Commission (EEOC); however, if a right-to-sue notice is issued, binding arbitration shall be the exclusive remedy to resolve any claims covered by this Agreement that relate to said right-to-sue notice. The EEOC is the federal agency that enforces laws prohibiting discrimination.

5. Nothing in this Arbitration Agreement restricts the Parties from seeking temporary injunctive relief from a court of competent jurisdiction, as may be authorized by law. However, all claims covered by this Arbitration Agreement for permanent injunctive relief, damages or any other relief must be sought through arbitration pursuant to this Arbitration Agreement.

6. Nothing in this Arbitration Agreement shall prevent the parties from agreeing voluntarily to submit the dispute to mediation. If the dispute is not resolved through mediation, it shall be submitted to binding arbitration.

7. A Request for Arbitration must be submitted in writing within one year of the action or event that gives rise to a claim. Failure by a Party to submit a written Request for Arbitration within one year of the action or event that gives rise to his, her or its claim will result in a complete waiver of the right to raise any claim, in any forum, regarding that dispute.

If a court or other tribunal of competent jurisdiction determines that the above one year limitations period is not enforceable as to a particular claim, then the applicable limitations period to arbitrate that claim will be the same limitations period that would govern the claim if it were brought in the state court where the action or event that gives rise to the claim occurred. In such an eventuality, if either Party fails to submit a written Request for Arbitration within the applicable statute of limitations, that Party will have waived any right to raise any claim, in any forum, regarding that dispute.

A Request for Arbitration must contain:

a. A factual description of the dispute in sufficient detail to advise the other party of the nature of the dispute;

b. The date when the dispute first arose;

c. The names and telephone numbers of any persons with knowledge of the dispute; and

d. The relief sought by requesting party.

The Party to whom the Request for Arbitration is directed will submit a Response within thirty (30) days so that the Parties can begin the process of selecting an Arbitrator. Such Response may include any counterclaims.

8. All disputes will be resolved by a single Arbitrator. The Arbitrator will be jointly selected by the Company and Employee. The Arbitrator shall be an attorney duly admitted to practice in the state where the dispute arose. If the parties cannot agree on an Arbitrator, then a list of five (5) arbitrators, experienced in employment matters, shall be obtained from an appropriate organization, such as the American Arbitration Association. The Arbitrator will be selected by the Parties who will alternately strike names from the list. The last name remaining on the list will be the Arbitrator selected to resolve the dispute.

9. Once the arbitration has commenced, both the Company and the Employee shall have the right to conduct normal civil discovery, including the taking of depositions, prior to the arbitration hearing. The Parties will be entitled to 2 depositions per side as of right, with more permitted if leave is obtained from the Arbitrator. Other than as set forth in this Arbitration Agreement, the arbitration and discovery processes shall be governed by Rules 3, 5-12, 26(a)(2)-26(a)(5), 26(b), 26(c), 26(g), 28-37, 41, 43-46, 50, 54-57, 65 and 68 of the Federal Rules of Civil Procedure.

10. The Arbitrator shall have the exclusive authority to resolve any issues relating to the arbitrability of the dispute or the validity or interpretation of this Arbitration Agreement. The Arbitrator will have the authority to rule on motions to dismiss and/or motions for summary judgment applying the standards governing such motions under the Federal Rules of Civil Procedure. The Arbitrator is only granted the authority to decide issues submitted to him/her by the Parties. The issues must be identifiable in the Request For Arbitration or the Response and any counterclaims raised in the Response. Except as required by law, any issues not identifiable in those documents is outside the scope of the Arbitrator's jurisdiction and any award involving such issues, upon motion by a party, shall be vacated.

11. The Arbitrator shall be empowered to award either Party any remedy at law or in equity that the prevailing party would otherwise have been entitled to had the matter been litigated in court, including, but not limited to, general, special, and punitive damages, and injunctive relief; provided, however, that the authority to award any remedy is subject to whatever limitations, if any, exist in the applicable law on such remedies. The Arbitrator shall issue a decision or award in writing, stating the essential findings of fact and conclusions of law. The Arbitrator shall have no jurisdiction to issue any award contrary to or inconsistent with the law, including the statute at issue. Judgment on the award rendered by the Arbitrator may be entered in any court having jurisdiction.

12. Unless otherwise required by law, fees and costs shall be allocated in the following manner:

a. Each party will initially bear their own attorney's fees, subject to any rulings by the Arbitrator, as authorized or required by law.

b. In disputes regarding statutory claims of alleged discrimination and/or harassment, to the extent required by law, the Company shall pay the entire cost of the arbitrator's services, the facility in which the arbitration is to be held, and any similar costs, **except** that Employee shall contribute towards these costs an amount equal to the then-current filing fee charged for filing a complaint in the state court where the dispute arose. This apportionment of costs will also apply to any other disputes where it is required by law.

c. In all other disputes regarding claims other than statutory claim of alleged discrimination and/or harassment, to the extent authorized by law, Employee and the Company will both contribute equally to the cost of the arbitrator's services, the facility in which the arbitration is to be held, and any similar costs.

d. If, after an analysis of the actual costs of the arbitration and Employee's economic condition, a court or arbitrator determines that, because of his or her economic condition, Employee cannot be required to pay his or her entire portion of the costs for the arbitrator's services, as set forth in this section, the court or arbitrator may reduce the costs for the arbitrator's services chargeable to Employee and the Company will be responsible for the unpaid portion of Employee's share of the costs for the arbitrator's services.

e. Each party shall be responsible for his, her, its costs associated with discovery, except as required by law or the Arbitrator's orders.

13. Following the evidentiary portion of an arbitration hearing, either party shall have the right to prepare and file with the Arbitrator a post-hearing brief not to exceed fifteen (15) pages in length. Any such brief shall be served on the Arbitrator and the other party within thirty (30) days of the close of the evidentiary portion of the hearing, unless the parties agree to some other time period. The Arbitrator shall have the authority to grant an extension or to increase the page limitation set forth above upon the request of any party for good cause shown.

14. Should any part of this Arbitration Agreement be declared by a court of competent jurisdiction to be invalid, unlawful or otherwise unenforceable, said part may be severed, restricted or modified so as to give effect to the intent of the Parties that their disputes be resolved through binding arbitration, the remaining parts shall not be affected thereby, and the Parties shall arbitrate their dispute without reference to or reliance upon the invalid, unlawful or unenforceable part of the Arbitration Agreement.

15. Neither the Parties nor the Arbitrator may disclose the existence, content or results of any arbitration under this Arbitration Agreement without the prior written consent of all Parties, except that disclosure may be made in the following circumstances: (a) if required by law; (b) to the Parties respective spouses, officers, insurers and legal and tax advisors; and (c) in connection with an application made to a court to enforce, vacate or modify an Arbitrator's award, and in such circumstances, all pleadings briefs, memoranda and exhibits shall be filed under seal.

16. This Arbitration Agreement does not in any way alter Employee's "at-will" status of employment. Either Employee or the Company may terminate the employment relationship with or without cause at any time.

17. This Arbitration Agreement is the full and complete Agreement of the parties relating to resolution of disputes arising out of or relating to employment, about conditions of employment and/or termination of employment. This Agreement may not be modified except by the parties and then only in writing.

Date: May 10, 2004	Date: May 10, 2004
/s/ Joji Suzuki	/s/ Takashi Kiyoizumi
Joji Suzuki	Takashi Kiyoizumi, M.D., Ph.D. President & CEO MediciNova, Inc.

EXHIBIT 10.17

TANABE RESEARCH
Laboratories U.S.A., Inc.

February 25, 2003

Takashi Kiyoizumi, Ph.D., M.D.
President and CEO
MediciNova, Inc.
4370 La Jolla Village Drive,
Suite 400 San Diego, CA 92122

Re: Research Services Agreement

Dear Dr. Kiyoizumi:

This is in reference to the Research Services Agreement between Medicinova and Tanabe Research Laboratories dated June 1, 2001 ("Agreement").

We hereby inform you of our intention not to have the Agreement annually renewed as set forth under Section 9.1 thereof after May 31, 2003.

However, we are hereby offering a 4 month extension of the Agreement until September 30, 2003. Such extension is offered without any alteration to the terms of the Agreement, except that the automatic annual extension of the Agreement provided under Section 9.1 shall not apply hereafter. If you agree to such 4 month extension, please indicate your agreement by countersigning both copies of this letter at the bottom, and please return to us one copy for our archive.

Best regards,

/s/ Hisashi Nishimura
Hisashi Nishimura
President/CEO/CFO/CAO
Tanabe Research Laboratories U.S.A., Inc.

Agreed,

/s/ Takashi Kiyoizumi
Takashi Kiyoizumi, Ph.D., M.D.
President and CEO
MediciNova, Inc.

No extension required.
Understood and agreed with
May 31, 2003 Termination.

RESEARCH SERVICES AGREEMENT

This Research Services Agreement (hereinafter referred to as the "Agreement") is made as of June 1, 2001 (hereinafter referred to as the "Effective Date"), by and between MEDICINOVA, INC., a Delaware corporation with its principal office at 4540 Towne Centre Court, San Diego, 92121, U.S.A. (hereinafter referred to as "MN") and TANABE RESEARCH LABORATORIES U.S.A., INC., a California corporation with its principal office at 4540 Towne Centre Court, San Diego, 92121, U.S.A. (hereinafter referred to as "TRL"). MN and TRL are sometimes referred to herein individually as a "Party" or collectively as "Parties".

WITHNESSETH

Whereas, TRL possesses knowledge and experience in pharmaceutical research and development and is able to carry out research and development on behalf of MN; and

Whereas, MN desires that TRL undertake on MN's behalf specific research and development activities within MN's pharmaceutical research and development programs; and

Now, therefore, in consideration of the foregoing premises and the covenants set forth below, the Parties hereby agree as follows:

1. Definitions.

1.1 "FDA" means the United States Food and Drug Administration.

1.2 "FTE" means the full time equivalent of a scientist engaged in performing services under this Agreement.

1.3 "IND" means an Investigational New Drug application filed with the FDA and any equivalent foreign filing.

1.4 "INFORMATION" means all information, techniques, data, inventions, practices, methods, knowledge, know-how, skill, descriptions, or experience relating to the RESEARCH PROGRAMS which is owned or controlled by a Party.

1.5 "NDA" means any or all applications (New Drug Application) submitted to the FDA under sections 505, 507, or 512 of the Food, Drug & Cosmetic Act and applicable regulations related to a product, and any equivalent foreign filing.

1.6 "RESEARCH PLAN" means a written research plan for each RESEARCH PROGRAM made by MN after discussion with TRL.

1.7 "RESEARCH PROGRAM" means the program designated by MN pursuant to Section 2.1.

1.8 “RESEARCH RESULT” means any or all inventions, discoveries, technologies, data, information, improvements, processes, formulas, know-how and trade secrets, patentable or otherwise, arising or resulting from the activities conducted by TRL under this Agreement or substances synthesized or screened in any RESEARCH PROGRAM during the term of this Agreement.

2. RESEARCH PROGRAMS undertaken by TRL.

2.1 MN shall designate RESEARCH PROGRAMS to be undertaken by TRL and request TRL to perform them on behalf of MN under this Agreement pursuant to a RESEARCH PLAN, which shall be deemed incorporated by reference into this Agreement.

2.2 The Parties shall discuss the RESEARCH PLAN, including but not limited to research schedule, number of FTE’s to be used by TRL to perform the RESEARCH PLAN and detailed method of experiments to be conducted for each RESEARCH PROGRAM, and MN shall make a final decision concerning such plan after such discussion. Once the initial RESEARCH PLAN is made, the Parties shall discuss changes to the RESEARCH PLAN for each RESEARCH PROGRAM, and change the plan from time to time, if necessary.

2.3 TRL shall perform the RESEARCH PROGRAMS in accordance with the RESEARCH PLAN and in compliance with all applicable laws and regulations. All services to be provided by TRL hereunder shall be performed at the request and under the general direction of MN and TRL shall not have any power to act independently on behalf of MN other than as specifically authorized hereunder or as requested from time to time by MN. Neither TRL nor its employees, vendors or suppliers shall be deemed to be agents, representatives, employees or servants of MN, except to the extent provided pursuant to the authority granted under this Agreement.

2.4 Notwithstanding the forgoing, TRL may refuse or limit supply of services to MN, if TRL does not have expertise or capabilities to conduct any work in a RESEARCH PROGRAM requested by MN, or TRL judges such work requested by MN is not appropriate to be carried out at TRL from the scientific, ethical, or safety point of view. Such RESEARCH PROGRAM refused by TRL shall not be deemed a RESEARCH PROGRAM under this Agreement.

3. Payments.

3.1 For the services rendered to MN by TRL hereunder, MN shall pay to TRL research fees at a rate of two hundred and fifty thousand US Dollars (US$250,000) per FTE (the “per FTE rate”). The total research fee shall be calculated by multiplying the per FTE rate by the number of FTEs actually assigned to the RESEARCH PROGRAMS (including but not limited to conducting requested experiments and data gathering and analyses) at TRL.

3.2 TRL shall submit to MN an invoice for the research fees to be paid for each month within twenty (20) days after the end of the month. MN shall make payment of the invoice to TRL within one (1) month following the date on which MN receives the invoice.

3.3 TRL shall keep complete and accurate accounting records so that the invoiced research fees may be appropriately calculated and ascertained. MN shall have the right to appoint an independent firm of certified public accountants who may have access to the books and records of TRL during reasonable business hours for the sole purpose of verifying the amount of the invoiced research fees under this Agreement. The fees and expenses of the accountants performing such verification shall be borne by MN.

4. Special Research Supplies and Equipment.

4.1 In case either of the following (i) or (ii) is necessary to carry out a particular work in a RESEARCH PROGRAM, MN shall be responsible for the procurement of such material, which shall be then supplied to TRL at no cost:

(i) Uncommon reagents, antibodies, kits, cells, or DNA chips regardless of its purchase price, or

(ii) any other special expendable research material in addition to those listed in (i) above to the extent its purchase price exceeds two thousand US Dollars (US$2,000).

In case that MN determines that a special fixed assets, including but not limited to a machinery or equipment, is necessary to carry out a particular RESEARCH PROGRAM, MN shall obtain such fixed assets and have TRL use it free of charge.

5. RESEARCH RESULTS.

5.1 MN shall own all right, title and interest to and of any of the RESEARCH RESULTS and INFORMATION arising there from.

5.2 TRL shall deliver all RESEARCH RESULTS to MN upon request by MN TRL shall cooperate with MN in connection with any patent applications, INDs, NDAs, or scientific publications made by MN or any licensee of MN in relation to the RESEARCH PROGRAMS.

6. Exchange of INFORMATION.

6.1 Either Party may request the other Party to hold a meeting upon reasonable notice and at mutually convenient times, to exchange INFORMATION or opinions concerning the situation of the RESEARCH PROGRAMS and future RESEARCH PLAN.

6.2 TRL shall submit in writing monthly and annual reports on the progress and results of the RESEARCH PROGRAMS to MN. The format of such reports shall be determined by the Parties.

7. Confidentiality.

7.1 TRL shall treat all INFORMATION obtained in the course of conducting the RESEARCH PROGRAMS hereunder as strictly confidential, not to be disclosed to any other person, company or firm, and shall not use it for any other purpose than for the purpose of this Agreement during the term and after expiration or termination of this Agreement.

7.2 In case that RESEARCH PROGRAMS are carried out using confidential INFORMATION or techniques possessed or controlled by TRL, MN shall treat such confidential INFORMATION obtained hereunder as strictly confidential, not to be disclosed to nor to be use by any other person, company or firm, and shall not use nor have any THIRD PARTY use it for any purpose either before or after the expiration or termination of this Agreement, except that MN may disclose such INFORMATION to its agents, consultants, Affiliates, sublicensees and/or other third parties for the research and development, manufacturing and/or marketing of any compounds or product (or for such parties to determine their interests in performing such activities).

7.3 The obligations under this Article 7 shall not apply to:

(a) information which at the time of the disclosure is part of the public knowledge;

(b) information which, after disclosure and/or obtainment, becomes part of the public knowledge by publication or otherwise, except through acts or omissions of the receiving Party;

(c) information which the receiving Party can establish by competent proof was in the receiving Party's possession at the time of disclosure and/or obtainment;

(d) information which the receiving Party lawfully receives from an entity other than the disclosing Party or their designee; provided, however, that such information was not obtained by said entity directly or indirectly from disclosing Party under a confidential obligation; or

(e) information which is required to be disclosed under any applicable law or regulation or which is disclosed to governmental or other regulatory agencies in order to obtain patents, or to gain approval to conduct clinical trials or to market products.

8. Indemnification.

MN shall indemnify and hold harmless TRL, Tanabe Seiyaku Co., Ltd. and its affiliate companies and their respective directors, officers, employees, agents and licensees from and against any liabilities which they may suffer or incur to the extent resulting from any and all personal injury (including death) and property damage relating to the RESEARCH PROGRAMS or applications of the RESEARCH RESULTS except to the extent such liabilities resulted from the negligence or willful misconduct of TRL. TRL shall indemnify and hold harmless MN and its affiliate companies and their respective directors, officers, employees, agents and licensees from and against any liabilities which they may suffer or incur to the extent resulting from any and all personal injury (including death) and property damage relating to the RESEARCH PROGRAMS or applications of the RESEARCH RESULTS and to the extent such liabilities resulted from the negligence or willful

misconduct of TRL. Each Party's obligations under this Section 8 shall survive the expiration or termination of this Agreement for any reason.

9. Term and Termination.

9.1 Initial term is for one (1) year from the EFFECTIVE DATE, and thereafter this Agreement shall be renewed automatically every year unless either Party shall give the other Party ninety (90) days written prior notice of the intention not to renew this Agreement.

9.2 Notwithstanding the foregoing Section 9.1, in case TRL wishes to renew the Agreement with increased research fees for the next year, it shall notify MN in writing at least one hundred and twenty (120) days prior to the expiration date.

9.3 Either Party shall be entitled to terminate this Agreement prior to its termination upon the occurrence of any of the following events,

(a) in the event of insolvency of the other Party or in the event that an involuntary or voluntary petition in bankruptcy is filed by, against, or on behalf of the other Party;

(b) in the event the other Party makes a general assignment for the benefit of its creditors, or a receiver or trustee is appointed for its business or property;

(c) in the event the other Party fails to perform any term or condition contained herein and such failure shall continue to exist for thirty (30) days after written notice of such failure has been given to such Party.

9.4 Upon the effective date of the termination of this Agreement, TRL will return to MN all property of MN then in TRL's possession and will provide MN with all books and records regarding the RESEARCH PROGRAM or the RESEARCH PLAN then in TRL's possession.

10. Representation.

Consistent with MN's ownership rights under Section 5.1 of this Agreement, TRL shall have no right to and will not sell, give away or deliver to any other person, firm, or corporation any RESEARCH RESULT developed by it for MN during the term of this Agreement.

11. Force Majeure.

Neither MN nor TRL shall be responsible for any resulting loss if the fulfillment of any of the terms or provisions of this Agreement is delayed or prevented by riots, wars, acts of enemies, national emergency, strikes, floods, fires, acts of God, or by any other cause not within the control of the Party whose performance is interfered with which by the exercise of reasonable diligence such Party is unable to prevent, whether of the class of causes enumerated above or not.

12. Notices.

All notices or other communications required or permitted to be given or made under this Agreement must be in a written form and may be effective by personal delivery by hand or postage prepaid registered or certified mail, return receipt requested, which shall be deemed communicated the same day as the personal delivery by hand thereof, seven (7) days from the mailing thereof.

13. Applicable Law.

This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware without regard to the principles of conflicts of laws thereof.

14. Entire Agreement.

This Agreement contains all of the agreements, understandings, conditions, warranties and covenants made between the Parties with respect to the subject matter hereof. Unless set forth herein, neither Party shall be liable for any representation made, and all modifications and amendments hereto shall be in writing and duly executed by the Parties hereto.

15. Severability.

Any provision of this Agreement which is invalid or unenforceable shall be invalid or unenforceable only to the extent of such invalidity or unenforceability, and the validity or enforceability of any other provision of this Agreement shall not be affected. The Parties shall replace such invalidated or unenforceable provision by valid and enforceable provision which will achieve, to the extent possible, the economic, business and other purposes of the replaced provision.

16. Assignments.

Neither Party may assign its rights or delegate the performance of its duties hereunder, without the prior written consent of the other Party to the Agreement, except that MN may assign this Agreement to an Affiliate or in connection with a merger or sale of substantially all its assets without such consent.

17. Arbitration.

Any dispute under this Agreement that cannot be settled amicably shall finally be settled under the arbitration rules promulgated by the American Arbitration Association as in effect on the date hereof by one or more arbitrators appointed by agreement of the Parties in accordance with such rules. If the Parties fail to agree on the appointment of an arbitrator or arbitrators within thirty (30) days from the date when the request for arbitration has been communicated to the other Party, an arbitrator or arbitrators shall be appointed by the American Arbitration Association. The arbitration proceedings shall be conducted in San Diego. The arbitrator(s) shall establish the rules of procedure. During any such arbitration proceedings, each Party shall pay its legal fees, but the losing Party shall be assessed for the full cost of the arbitration proceedings including the

administrative charges and the arbitration fees and the legal fees of the prevailing Party. Judgment upon the award rendered by the arbitrator(s) may be entered and enforced by any court having jurisdiction thereof. Either Party hereto may institute a demand for arbitration in accordance herewith at any time upon ten (10) days prior written notice to other.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their respective officers as of the Effective Date.

MEDICINOVA, INC.

/s/ Takashi Kiyoizumi
By: Takashi Kiyoizumi, M.D. Ph.D.
Title: President and CEO

TANABE RESEARCH LABORATORIES U.S.A., INC.

/s/ Hisashi Nishimura
By: Hisashi Nishimura
Title: Vice President, CAO and CFO

EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP,
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated September 10, 2004 in the Registration Statement (Form S-1) and related Prospectus of MediciNova, Inc. for the registration of its common shares to be filed with the Securities and Exchange Commission on or about September 30, 2004.

/s/ ERNST & YOUNG LLP

San Diego, California
September 28, 2004

[LOGO OF PILLSBURY WINTHROP LLP]

David R. Snyder
619.544-3369
dsnyder@pillsburywinthrop.com

September 30, 2004

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
450 Fifth Street, N.W.
Washington, D.C. 20549

Re: MediciNova, Inc.
Registration Statement on Form S-1 filed September 15, 2004

Dear Ladies and Gentlemen:

Transmitted herewith via EDGAR for filing on behalf of our client, MediciNova, Inc., a Delaware corporation (the "Company") is a registration statement on Form S-1 with respect to the proposed initial public offering of shares of the Company's common stock, par value $0.001 per share (the "Registration Statement"). Manually executed pages have been signed prior to the time of this electronic filing and will be retained by the Company for five (5) years.

Please note that the Company has transmitted via wire transfer $12,670, representing the filing fee was calculated based upon an assumed aggregate offering price of $100,000,000. Pricing information, as well as the number of shares offered and related information, will be added by amendment to the Registration Statement prior to commencing marketing efforts, which is not anticipated to occur prior to receipt of the Staff's comments.

The Company requests that it be permitted to apply orally or by facsimile for acceleration of the effective date of the Registration Statement in accordance with Rule 461(a) of Regulation C (the "Rule") promulgated under the Securities Act of 1933, as amended (the "Act"). Pursuant to the Rule, please be advised that the Company and its underwriters for the offering are aware of their respective obligations under the Act and are prepared to provide, at the time of the acceleration request, the prospectus dissemination information that is typically set forth in a written acceleration request.

Should you have any questions regarding the foregoing or require additional information to process the Registration Statement, please contact the undersigned at (619) 544-3369 or James Basta of this office at (858) 509-4020.

Sincerely,

Pillsbury Winthrop LLP

By: /s/ David R. Snyder
David R. Snyder
dsnyder@pillsburywinthrop.com

cc: Dr. Takashi Kiyoizumi, MediciNova, Inc.
James Basta, Pillsbury Winthrop LLP