

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

**FORM S-3  
REGISTRATION STATEMENT**  
*Under  
The Securities Act of 1933*

**MediciNova, Inc.**

(Exact Name of Registrant as Specified in Its Charter)

Delaware  
(State or Other Jurisdiction  
of Incorporation or Organization)

2834  
(Primary Standard Industrial  
Classification Code Number)

33-0927979  
(I.R.S. Employer  
Identification Number)

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)

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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 the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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, please 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered (1)	Amount to be Registered	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$.001 per share			
Preferred Stock, par value \$.01 per share			
Debt Securities			
Warrants (2)			
<b>Total (3)</b>	\$100,000,000(4)	\$100,000,000(4)(5)(6)	\$10,700

- These offered securities may be sold separately, together or as units with other offered securities.
- The warrants represent rights to purchase the other classes of securities of MediciNova, Inc. registered hereunder.
- This registration statement also registers such indeterminate amounts of securities as may be issued upon conversion or settlement of, or in exchange for, the securities registered hereunder and, pursuant to Rule 416(a) under the Securities Act of 1933, as amended, such indeterminate number of shares as may be issued upon conversion or exchange as a result of stock splits, stock dividends or similar transactions.
- Represents an indeterminate number or aggregate principal amount of the securities being registered for issuance at various times and at indeterminate prices, with an aggregate initial offering price not to exceed \$100,000,000 or the equivalent thereof in one or more currencies, foreign currency units or composite currencies. Such amount represents the issue price rather than the principal amount of any debt securities issued at original issue discount.
- Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended.
- Exclusive of accrued interest, distributions and dividends, if any.

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 the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said section 8(a), may determine.

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**The information in this prospectus is not complete and may be changed or supplemented. No securities described in this prospectus can be sold until the registration statement that we filed to cover the securities has become effective under the rules of the Securities and Exchange Commission. This prospectus is not an offer to sell the securities, nor is it a solicitation of an offer to buy the securities, in any state where an offer or sale of the securities is not permitted.**

**PROSPECTUS  
(Subject to Completion,  
dated October 26, 2006)**

**\$100,000,000**



**Common Stock  
Preferred Stock  
Debt Securities  
Warrants**

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This prospectus relates to shares of common stock, shares of preferred stock, debt securities and debt and equity warrants that we, MediciNova, Inc., may sell from time to time in one or more offerings. The aggregate initial offering price of the securities we may sell in these offerings will not exceed \$100,000,000 (such amount represents the issue price rather than the principal amount of any debt securities issued at original issue discount). This prospectus will allow us to issue securities over time. We will provide a prospectus supplement each time we issue securities, which will inform you about the specific terms of that offering and may also supplement, update or amend information contained in this document.

The securities offered by this prospectus and any prospectus supplement may be offered directly or to or through underwriters or dealers. If any underwriters are involved in the sale of any securities offered by this prospectus and any prospectus supplement, their names, and any applicable purchase price, fee, commission or discount arrangement between or among them, will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. You should read this prospectus and each applicable prospectus supplement carefully before you invest in our securities.

Our common stock is quoted on the Hercules Market of the Osaka Securities Exchange under the symbol "4875." On October 24, 2006, the last reported sale price of our common stock was 120 Japanese Yen (or approximately \$1.01) per share (based on an exchange rate of 119 Yen per U.S. Dollar, as quoted on [www.oanda.com](http://www.oanda.com)).

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**The securities offered or sold under this prospectus involve a high degree of risk. You should carefully consider the [Risk Factors](#) beginning on page 4 of this prospectus before purchasing any of the securities offered by this prospectus.**

**Neither the 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.**

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The date of this prospectus is \_\_\_\_\_, 2006

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## 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 or incorporated by reference. Except as otherwise provided in this prospectus, unless the context otherwise requires, references in this prospectus to “we”, “us” and “our” refer to Medicinova, Inc. 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 biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics. Through strategic alliances primarily with Japanese pharmaceutical companies, we are developing a diversified portfolio of product candidates, each of which we believe has broad patent protection, a well-characterized and differentiated therapeutic profile and attractive commercial potential.

To date, we have acquired license rights to six compounds for the development of eight product candidates, representing what we believe present large market opportunities. Our pipeline includes seven programs in advanced clinical testing for the treatment of asthma, status asthmaticus, multiple sclerosis, interstitial cystitis, preterm labor, cancer and Generalized Anxiety Disorder. The eighth program, which relates to urinary incontinence, has recently entered clinical testing. Our strategy is to advance our clinical programs through the Phase II proof-of-concept stage or beyond and, at appropriate points of high-value inflection, to establish strategic alliances and partnerships to support Phase III clinical testing and commercialization of selected development programs. We may also retain certain promising compounds for further in-house development and potential commercialization.

We believe that our extensive internal diligence process enables us to identify product candidates that combined with our business model can move quickly into the clinical development process in the United States. We typically acquire product candidates with extensive safety and efficacy data that are in late pre-clinical or early clinical development, and in some instances have been commercialized in Japan for other indications. We utilize existing data in preparing investigational new drug (IND) applications or foreign equivalents and in designing additional clinical trials.

We believe that our ability to gain access to and acquire potentially high-value product candidates from Japanese and European pharmaceutical companies is largely attributable to the established relationships and broad industry experience of our global management team. In particular, our relationships with Japanese pharmaceutical companies and executives provide us with a competitive advantage in opportunistically sourcing product candidates from Japanese pharmaceutical companies at attractive terms. We also intend to continue to build a strong portfolio of product candidates through our relationships with large and mid-sized North American and European 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 in Japan and Angiogene Pharmaceuticals in the United Kingdom, pursuant to which we have obtained rights to develop and market compounds.

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The following table summarizes our programs:

<b>Product Candidate</b>	<b>Disease/Indication</b>	<b>Phase of Development</b>	<b>Licensor</b>	<b>Licensed Territory</b>
MN-305	Generalized Anxiety Disorder	Phase II/III completed in Q2, 2006	Mitsubishi Pharma Corporation	Worldwide, except Japan, and certain countries in Asia
MN-001	Interstitial cystitis	Phase II/III enrollment completed in Q3 2006	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan and South Korea
MN-001	Bronchial asthma	Phase III trial to be initiated by the end of 2006	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan, and South Korea
MN-166	Multiple sclerosis	Phase II initiated in 2005	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan and South Korea
MN-221	Status Asthmaticus	Phase II trial to be initiated by the end of 2006	Kissei Pharmaceutical	Worldwide, except Japan
MN-221	Preterm labor	Phase IIa initiated in Q3 of 2006	Kissei Pharmaceutical	Worldwide, except Japan
MN-029	Solid tumors	Phase II/III trial to be initiated by the end of 2006	Angiogene Pharmaceuticals	Worldwide
MN-246	Urinary incontinence	Phase I initiated in Q1, 2006	Mitsubishi Pharma Corporation	Worldwide, except Japan, and certain countries in Asia

### **Recent Events**

In a Definitive Proxy Statement sent to our stockholders on September 11, 2006, our Board of Directors recommended that the stockholders approve an amendment to our Certificate of Incorporation to (i) give effect to a one-for-ten reverse stock split of the shares of our common stock, and (ii) reduce proportionately the number of authorized shares of our common stock and preferred stock (the "Reverse Stock Split"). Our Board of Directors authorized submitting the Reverse Stock Split to a vote of our stockholders to reduce the number of outstanding shares with the expectation that each share will trade at a higher price. This desire for a higher trading price per share is the result of our Board of Director's intention that our common stock would meet the requirements for listing on the NASDAQ Global Market so that we may apply for listing of our common stock on the NASDAQ Global Market. Our Board of Directors believes that in order to meet the NASDAQ Global Market's initial listing standards, we must implement the Reverse Stock Split. On October 13, 2006, our stockholders approved the Reverse Stock Split at a Special Meeting of Stockholders.

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a “shelf” registration process. Under this shelf registration process, we may, from time to time, sell:

- shares of common stock,
- shares of one or more series of preferred stock,
- one or more series of debt securities, and
- warrants to purchase shares of common stock or preferred stock, debt securities or any combination of such shares and debt securities,

separately, together or as units with other offered securities, in one or more offerings. The aggregate initial offering price of the securities we sell in these offerings, will not exceed \$100,000,000 (such amount represents the issue price rather than the principal amount of any debt securities issued at original issue discount). This prospectus provides you with a general description of the securities we may offer. Each time we sell any securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement also may add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplements together with the additional information described below under the heading “Where You Can Find More Information” before you decide whether to invest in the securities.

You should rely only upon the information contained in, or incorporated into, this prospectus and the applicable prospectus supplements that contain specific information about the securities we are offering. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this document is accurate only as of the date on the front cover of this document. Our business, financial condition, results of operations and prospects may have changed since that date.

## RISK FACTORS

*An investment in our securities involves a high degree of risk. You should carefully consider the risks and uncertainties set forth below, the specific risks set forth under the caption "Risk Factors" in the applicable prospectus supplement and in any of our other filings with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, incorporated by reference herein, the information set forth in the section of this prospectus entitled "Information Regarding Forward-Looking Statements," and all other information contained or incorporated by reference in this prospectus, before you purchase our securities. The following section describes certain risks and uncertainties that may have a material adverse effect on our business, financial condition, results of operations and the market price of our common stock and could cause our actual results to differ materially from those expressed or implied in our forward-looking statements.*

### **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 biopharmaceutical company with a limited operating history. We have incurred significant net losses since our inception. For the three months and six months ended June 30, 2006, we had a net loss of \$7.2 million and \$15.7 million, respectively. At June 30, 2006, our accumulated deficit was approximately \$136.1 million. Our annual net losses may increase over the next several years as we expand and incur significant clinical development costs.

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 including the increased costs to operate as a dual-listed public company. Consequently, we expect to continue to incur significant and increasing operating losses for the foreseeable future.

***We do not have any products that are approved for commercial sale and therefore do not expect to generate any revenues from product sales in the foreseeable future.***

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 revenues and have funded our operations primarily from sales of our securities. Our only source of revenues since inception has been from development management services rendered to Asahi Kasei Pharma Corporation and Argenes, Inc., both Japanese pharmaceutical companies, in connection with their clinical development of pharmaceutical product candidates. Our contract with Asahi Kasei Pharma has been completed and we do not expect to generate further revenues from that agreement. We anticipate that we will continue to receive modest revenues for rendering consulting services and that, prior to our commercialization of a product candidate, our consulting revenues, together with 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, manufacturing and marketing drugs with market potential. We may never succeed in these activities, and may not generate sufficient revenues to continue our business operations or achieve profitability.

***The loss of any rights to develop and market any of our product candidates could significantly harm our business.***

We license the rights to develop and market our product candidates. Currently, we have licensed six compounds for the development of the following eight product candidates:

- MN-001 for bronchial asthma and interstitial cystitis licensed from Kyorin Pharmaceutical;
- MN-029 for solid tumors licensed from Angiogene Pharmaceuticals;

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- MN-305 for Generalized Anxiety Disorder licensed from Mitsubishi Pharma Corporation;
- MN-166 for multiple sclerosis licensed from Kyorin Pharmaceutical;
- MN-221 for preterm labor and status asthmaticus licensed from Kissei Pharmaceutical; and
- MN-246 for urinary incontinence licensed from Mitsubishi Pharma Corporation.

We are obligated to develop and commercialize these 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 breach our obligations under the agreements materially and fail to cure a breach within a specified period of time.

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

***In order to commercialize a therapeutic drug successfully, a product candidate must undergo clinical trials, which are long, complex and costly, manifest a high risk of failure and can be delayed or suspended.***

All eight of our product candidates are in clinical development, the process that is required to receive regulatory approval for commercial sale. The regulatory approval process is long, complex and costly. 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, or NDA, 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.

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.

To date, we have regulatory approval to conduct clinical trials for all eight product development programs. Investigational New Drug, or IND, applications were approved and are active for six product candidates. We have Clinical Trial Authorizations, or CTAs, the equivalent of a U.S. IND, approved and active to conduct a Phase II study for MN-166 in patients with multiple sclerosis in five countries in Eastern Europe and a CTA approved in Canada to conduct a Phase I study for MN-246 in healthy subjects.

The commencement of clinical trials can be delayed for a variety of other 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;



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- 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;
- our failure or inability 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 identify and license or acquire other product candidates, we will not be able to expand our business over the long term.***

Given that we do not have internal discovery capabilities, our business over the long term is substantially dependent on our ability 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. We have limited experience identifying, negotiating and implementing economically viable product candidate acquisitions or licenses, which is a lengthy and complex process. Also, the market for licensing and acquiring product candidates is intensely competitive and many of our competitors have greater resources than we do. We may not have the requisite capital resources to consummate product candidate acquisitions or licenses that we identify to fulfill our strategy.

Moreover, product candidate acquisitions that we do complete involve numerous risks, including:

- difficulties in integrating the development program for the acquired product candidate into our existing operations;
- diversion of financial and management resources from existing operations;
- risks of entering new markets or technologies;
- inability to generate sufficient revenues to offset acquisition costs; and
- delays that may result from our having to perform unanticipated pre-clinical trials or other tests on the product candidate.

For these and other reasons, in the near term, we have determined to place less emphasis on efforts to identify and acquire additional product candidates. If we are not successful in identifying and licensing or acquiring other product candidates over the long term, we will not be able to grow our revenues with sales from new products beyond those revenues, if any, from our existing product candidates and we may fail to achieve or sustain profitability.

***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, 2006, we have an accumulated deficit of \$136.1 million. Although we presently believe our existing cash and investments will be sufficient to fund our anticipated cash requirements at least through December 31, 2007, we will require significant additional financing to fund our operations thereafter. 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 approval 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, to the extent we are able to do so. 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 present or future 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.

***The terms under which we raise additional capital may harm our business and may significantly dilute stockholders' ownership interests.***

If we raise additional funds through collaborations or licensing arrangements with third parties, we may need to relinquish some rights to our product candidates, including commercialization rights, which may harm our ability to generate revenues and achieve or sustain profitability. If we raise additional funds by issuing equity securities, stockholders may experience substantial dilution. Debt financing, if available, may involve restrictive covenants that may impede our ability to operate our business. Any debt financing or additional equity that we raise may contain terms that are not favorable to us or our stockholders.

***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 will be to seek collaborations with partners, such as large pharmaceutical organizations, that are willing to conduct later-stage clinical trials and further develop and commercialize our product candidates. To date, we have not entered into any such collaborative arrangements.

By entering into these strategic collaborations, we may rely on our partners for financial resources and for development, regulatory and commercialization expertise. Our partners may fail to develop or effectively commercialize 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;

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- decide to pursue a competitive potential product that has been developed outside of the collaboration;
- cannot obtain the necessary regulatory approvals;
- determine that the market opportunity is not attractive; or
- cannot manufacture the necessary materials in sufficient quantities from multiple sources or at a reasonable cost.

We may not be able to enter into collaborations on acceptable terms, if at all. We also face competition in our search for partners from other organizations worldwide, many of whom are larger and are able to offer more attractive deals in terms of financial commitments, contribution of human resources, or development, manufacturing, regulatory or commercial expertise and support.

If we are not successful in attracting partners and entering into collaborations on acceptable terms, we may not be able to complete development of, or commercialize one or more of, our product candidates. In such event, our ability to generate revenues and achieve or sustain profitability would be significantly hindered.

***We rely on third parties to conduct our clinical trials and perform data collection and analysis, which may result in costs and delays that may hamper our ability to successfully develop and commercialize our 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. In the course of clinical development, we have contracted and will continue to contract with a number of these research organizations, including: Accelsiors CRO and Consultancy Services of Budapest, Hungary; Pharmaceutical Research Associates, Inc. of Lenexa, Kansas; Fulcrum Pharma Developments, Inc. of Durham, North Carolina; Paragon, Inc. of Irvine, California; Quintiles, Inc. of Morrisville, North Carolina and SFBC International of Princeton, New Jersey.

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;
- such 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 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, if we were to seek such alternative sources, we might not be able to enter into replacement arrangements without delays or additional expenditures.

***Our product candidates, if approved for sale, 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;

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- availability and cost of alternative treatments, including cheaper generic drugs;
- pricing and cost effectiveness, which may be subject to regulatory control;
- effectiveness of our or any of our partners' sales and marketing strategies; and
- the availability of adequate 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 and our ability to generate revenues from that product candidate would be substantially reduced.

***We are dependent on our management team, particularly Yuichi Iwaki, M.D., Ph.D., and if we are unable to attract, retain and motivate Dr. Iwaki and other key management and scientific staff, our drug development programs may be delayed and we may be unable to develop successfully or commercialize our product candidates.***

We are dependent upon the continued services of our executive officers and other key personnel, particularly Yuichi Iwaki, M.D., Ph.D., a founder of the Company and the Executive Chairman of our Board of Directors and our President and Chief Executive Officer and Acting Chief Financial Officer, who has been instrumental in our ability to in-license product candidates from Japanese pharmaceutical companies and secure financing from Japanese institutions. The relationships that certain of our key managers have cultivated with pharmaceutical companies from whom we license product candidates and to whom we expect to out-license product candidates make us particularly dependent upon their continued employment with us. We are also substantially dependent on the continued services of our existing project management personnel because of the highly technical nature of our product development programs.

If and when we acquire or license new product candidates, our success will depend on our ability to attract, retain and motivate highly qualified management and scientific personnel to manage the development of these new product candidates. 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, where our offices are located. Our short operating history and the uncertainties attendant to being a development-stage biopharmaceutical company could impair our ability to attract and retain personnel and 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.

***If we are unable to establish our sales and distribution capabilities, we will be unable to successfully commercialize our 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 programs or acquire other products, we may need to establish sales, marketing and distribution capabilities on our own or with partners. 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, therefore, hindering our ability to generate revenues and achieve or sustain profitability. Although we intend to establish

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strategic collaborations to market the products in our programs outside the United States, if we are unable to establish such collaborations, we may be required to market our 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 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. For example, we intend to hire additional personnel in clinical development, regulatory affairs and corporate development to further strengthen our core competencies.

Similarly, we are likely to hire additional management and administrative personnel to manage our business and affairs as we continue to grow. In addition, we will have to develop sales, marketing and distribution capabilities for the product candidates in our programs. The scope and timing of these hires is highly uncertain and remains subject to the success of our current product candidate development programs.

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 places additional demands on our limited resources. 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 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, if at all;
- 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 or yearly 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, and 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, sufficient quantities of our product candidates for clinical trials. While we believe that there are competitive sources available to manufacture our product

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candidates, we may not be able to enter into arrangements without delays or additional expenditures. We cannot estimate these delays or costs with certainty. To date, these manufacturers have met the requirements of our programs; however, we have only required the manufacture of our product candidates in very limited volume because we do not have any commercialized product.

Our manufacturers will be obliged to operate in accordance with FDA-mandated or International Convention on Harmonization (ICH) 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 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 increase successfully 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 increase successfully 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 harm 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.***

We rely on the manufacturers for our products to purchase from third-party suppliers the materials necessary to produce the compounds for our clinical trials and for commercial distribution, if we obtain marketing approval for any of our product candidates. Suppliers may not sell these materials to our manufacturers at the time we need them or on commercially reasonable terms. We do not have any control over the process or timing of the acquisition of these materials by our manufacturers. Moreover, we currently do not have any agreements for the production of these materials. 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 harm our ability to generate revenues and achieve or sustain profitability.

## **Risks Related to Our Intellectual Property**

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

To date, we have obtained licensed rights to ten issued U.S. patents and two U.S. patent applications. We also have obtained licensed rights to 64 issued and pending foreign patents corresponding to these U.S. patents.

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The patents to which we have licensed rights are set to expire between 2009 and 2023. In particular, a U.S. composition of matter patent for MN-001 that was issued on January 15, 1991 is set to expire on February 23, 2009, and a U.S. composition of matter patent for MN-002 that was issued on March 1, 1994 is set to expire on December 30, 2011. The U.S. composition of matter patent for MN-305 that was issued December 1, 1992 is set to expire March 14, 2011. In addition to these licensed rights, we hold two issued U.S. patents, as well as one U.S. patent application relating to MN-001 and its metabolite, MN-002. These patents and pending patent applications contain claims directed to, among other things, compounds, compositions, methods of use and/or methods of manufacture.

The patent protection of our product candidates and technology involves complex legal and factual questions. In general, our license agreements give us a right, but not an obligation, to enforce our patent rights. 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;
- operate without infringing the intellectual property and proprietary rights of others;
- enforce the issued patents under which we hold rights; and
- develop additional proprietary technologies that are patentable.

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 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. We have taken steps, including entering into confidentiality agreements with all of our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors, to protect our trade secrets and unpatented know-how. We also typically obtain agreements from these parties which 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 or know-how 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 or know-how.

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***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 patent holder could prevent us from importing, making, using or selling the patented compounds. We may need to resort to litigation to determine the scope and validity of third-party proprietary rights. Similarly, we may be subject to claims that we have inappropriately used or disclosed trade secrets or other proprietary information of third parties. 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;
- we or our collaborators having to enter into license arrangements that may not be available on commercially acceptable terms; or
- significant cost and expenses, as well as distraction of our management from our business.

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

### **Risks Related to Our Industry**

***We are subject to stringent regulation of our product candidates, which could delay the development and commercialization of our products.***

We, our third-party manufacturers, contractors, suppliers, partners, and our product candidates are subject to stringent regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. None of our product candidates can be marketed in the United States until approved by the FDA. None of our product candidates has been approved, and we may never receive FDA approval for any of our product candidates. Obtaining FDA approval 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 and labeling of such products. Additionally, the FDA may require post-approval studies, including additional research and development and clinical trials. 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 substantially reduce our ability to generate revenues from the particular product candidate.

In addition, both before and after regulatory approval, we, our partners, and our product candidates are subject to numerous FDA requirements covering, among other things, testing, manufacturing, quality control, labeling, advertising, promotion, distribution and export. The FDA's requirements may change and additional government regulations may be promulgated that could affect us, our partners, and our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad.

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



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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. 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, among other things, we may be subject to fines and other civil penalties, delays in approving or failure to approve a product, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions, interruption of manufacturing or clinical trials, injunctions and criminal prosecution, any of which would harm our business.

### ***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.

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.

In many of our target disease areas, potential competitors are working to develop new compounds with different mechanisms of action, and attractive efficacy and safety profiles. Many of our competitors have substantially greater financial, human 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.

### ***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. As a result, there is significant risk that our current product candidates may be rendered obsolete or uneconomical by new discoveries before we recover any expenses incurred in connection with their development. If our product candidates are rendered obsolete by advancements in biopharmaceutical technologies, our future prospects will suffer.

### ***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. We currently have insurance that covers our clinical trials. We believe our current

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insurance coverage is reasonably adequate at this time. We will, however, need to increase and expand this coverage as we commence additional clinical trials, as well as 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 payers 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 product candidates once they are approved for sale, adversely affecting our future revenue growth and potential profitability. Moreover, 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 the Market for our Common Stock**

#### ***Our stock price may be volatile, and you may not be able to resell our shares at a profit or at all.***

The trading price of our common stock is subject to significant fluctuation. For example, since the date of our initial public offering through June 30, 2006, our stock has traded as high as approximately \$4.19 and as low as approximately \$0.89. The trading market for our common stock also may be influenced by the research and reports that industry or securities analysts publish about us or our industry. If one or more of the analysts who may cover us or our industry were to publish an unfavorable research report or to downgrade our stock, our stock price likely would decline. If one or more of these analysts were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

#### ***If the holders of the shares purchased prior to our initial public offering were to determine to sell all or a significant portion of their shares at one time, there would be significant downward pressure on our stock price and it may be difficult to sell your shares.***

On September 19, 2005, we filed a Registration Statement on Form S-1 to register 67,335,356 shares of common stock for resale from time to time, which registration statement was subsequently declared effective by the U.S. Securities and Exchange Commission, or SEC. The registered shares were beneficially owned by 47 holders. On November 23, 2005, we filed a Registration Statement on Form S-1 to register 13,356,572 shares issuable upon the exercise of warrants held by three parties, of which warrants held by our two founders that relate to 12,856,572 shares were exercisable at \$0.10 per share and a warrant held by a separate investor that relates to 500,000 shares was exercisable at \$1.00 per share. At September 30, 2006, there were 7,770,766 warrants outstanding. All of such shares, other than shares held by Dr. Iwaki, may also be sold from time to time

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in exempt transactions pursuant to Rule 144(k) promulgated by the SEC. The trading volume for our stock is low, with an average trading volume of approximately 106,700 shares per day during the month of September 2006. If the holders of such shares, to the extent such shares have not been sold already, were to attempt immediately to sell their shares, there would be significant downward pressure on our stock price and it may be difficult, or even impossible, to find a buyer for shares of our common stock. The warrants held by our founders expire in 2007 and the warrant held by a separate investor expires in 2009. If the foregoing warrants are exercised, our stockholders will experience immediate and substantial dilution.

### ***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 also may be 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 three 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. In any event, 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.

## INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements include, but are not limited to, discussions regarding our operating strategy, growth strategy, licensing and acquisition strategy, industry, economic conditions, financial condition, liquidity and capital resources, results of operations, the expected progress of the development of our product candidates, potential licensing, collaboration and partnering plans, anticipated trends and challenges in our business and the markets in which we operate, our competitive position, our intellectual property protection, the outcome of any litigation against us, critical accounting policies and the impact of recent accounting pronouncements. Additional forward looking statements include, but are not limited to, statements pertaining to other financial items, plans, strategies or objectives of management for future operations, our financial condition or prospects and any other statement that is not historical fact, including any statement which includes the words “may,” “might,” “will,” “intend,” “should,” “could,” “can,” “would,” “expect,” “believe,” “estimate,” “predict,” “potential,” “plan” or similar words. For all of the foregoing forward-looking statements, we claim the protection of the Private Securities Litigation Reform Act of 1995. Such statements are subject to a number of assumptions, risks and uncertainties, many of which are beyond our control, including results of clinical trials, interest of potential collaborators in the market and other risks and uncertainties, including those described under “Risk Factors” herein. These assumptions, risk and uncertainties could cause our actual results to differ materially from those implied or expressed by the forward-looking statements. These forward looking-statements represent our judgment as of the date hereof. We undertake no obligation to revise or update publicly any forward-looking statements.

## USE OF PROCEEDS

We will use the net proceeds from the sale of the securities for general business purposes, including to accelerate and extend our development efforts, to in-license additional product candidates, and for other working capital expenditures. We will have broad discretion in the application of such proceeds, and pending such, may invest the proceeds in short-term interest-bearing instruments or other investment grade securities. We will describe the use of the proceeds for any particular offering of securities in the applicable prospectus supplement.

## RATIO OF EARNINGS TO FIXED CHARGES AND RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

Our ratio of earnings to fixed charges and our ratio of earnings to combined fixed charges and preferred stock dividends for the periods indicated below were as follows:

	Year Ended December 31,				
	2005	2004	2003	2002	2001
Ratio of Earnings to Fixed Charges (1)	N/A	N/A	N/A	N/A	N/A
Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends (2)	N/A	N/A	N/A	N/A	N/A

- (1) Our earnings were insufficient to cover fixed charges by \$25,692,000, \$48,273,000, \$6,209,000, \$6,931,000 and \$1,795,000 for the years ended December 31, 2005, 2004, 2003, 2002 and 2001, respectively.
- (2) Our earnings were insufficient to cover combined fixed charges and preferred stock dividends to \$25,692,000, \$48,273,000, \$6,209,000, \$6,931,000 and \$1,795,000 for the years ended December 31, 2005, 2004, 2003, 2002 and 2001, respectively.

For the purpose of these computations, earnings have been calculated as the sum of (i) pretax income from continuing operations and (ii) fixed charges. Fixed charges consist of the sum of (i) interest cost (whether expensed or capitalized), amortized premiums, discounts and capitalized expenses related to indebtedness and (ii) an estimate of the interest within rental expense. Combined fixed charges and preferred stock dividends consist of the sum of (i) fixed charges, as calculated in accordance with the immediately preceding sentence, and (ii) the amount of pre-tax earnings that is required to pay the dividends on outstanding preference securities of the Company.

## DILUTION

We will set forth in a prospectus supplement the following information regarding any material dilution of the equity interests of investors purchasing securities in an offering under this prospectus:

- the net tangible book value per share of our equity securities before and after the offering;
- the amount of the increase in such net tangible book value per share attributable to the cash payments made by purchasers in the offering; and
- the amount of the immediate dilution from the public offering price which will be absorbed by such purchasers.

## OUR BUSINESS

We are a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics. Through strategic alliances primarily with Japanese pharmaceutical companies, we are developing a diversified portfolio of product candidates, each of which we believe has broad patent protection, a well-characterized and differentiated therapeutic profile and attractive commercial potential.

To date, we have acquired license rights to six compounds for the development of eight product candidates, representing what we believe present large market opportunities. Our pipeline includes seven programs in advanced clinical testing for the treatment of asthma, status asthmaticus, multiple sclerosis, interstitial cystitis, preterm labor, cancer and Generalized Anxiety Disorder. The eighth program, which relates to urinary incontinence, has recently entered clinical testing. Our strategy is to advance our clinical programs through the Phase II proof-of-concept stage or beyond and, at appropriate points of high-value inflection, to establish strategic alliances and partnerships to support Phase III clinical testing and commercialization of selected development programs. We may also retain certain promising compounds for further in-house development and potential commercialization.

We believe that our extensive internal diligence process enables us to identify product candidates that combined with our business model can move quickly into the clinical development process in the United States. We typically acquire product candidates with extensive safety and efficacy data that are in late pre-clinical or early clinical development, and in some instances have been commercialized in Japan for other indications. We utilize existing data in preparing investigational new drug (IND) applications or foreign equivalents and in designing additional clinical trials.

We believe that our ability to gain access to and acquire potentially high-value product candidates from Japanese and European pharmaceutical companies is largely attributable to the established relationships and broad industry experience of our global management team. In particular, our relationships with Japanese pharmaceutical companies and executives provide us with a competitive advantage in opportunistically sourcing product candidates from Japanese pharmaceutical companies at attractive terms. We also intend to continue to build a strong portfolio of product candidates through our relationships with large and mid-sized North American and European 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 in Japan and Angiogene Pharmaceuticals in the United Kingdom, pursuant to which we have obtained rights to develop and market compounds.

Our development programs include:

- MN-305 for the treatment of Generalized Anxiety Disorder, for which we completed a Phase II/III clinical trial during the second quarter of 2006 (in addition, our licensor of MN-305 has completed an early Phase II clinical trial for anxiety disorders in Japan);
- MN-001 for the treatment of interstitial cystitis, which is in a pivotal-design Phase II/III clinical trial in the U.S. Enrollment was completed in August 2006 and results are anticipated in early 2007;
- MN-001 for the treatment of bronchial asthma, which has completed Phase II testing and for which we plan to initiate a Phase III clinical program by the end of 2006;
- MN-166 for the treatment of multiple sclerosis, which is in a randomized, double-blind, placebo-controlled multi-center Phase II clinical trial in eastern Europe, and for which enrollment was completed in early 2006. Results are anticipated in the first quarter of 2007;

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- MN-221 for the treatment of status asthmaticus, for which we plan to initiate a Phase II clinical trial during the fourth quarter of 2006;
- MN-221 for the treatment of preterm labor, for which a Phase IIa clinical study to investigate the pharmacokinetic profile of MN-221 in healthy pregnant women was initiated in the third quarter of 2006;
- MN-029 for the treatment of solid tumors, for which we currently have one Phase I clinical trial ongoing in the United States and have completed one Phase I clinical trial during the second quarter of 2006, and for which we plan to initiate Phase II/III studies in ovarian and non-small cell lung solid tumor cancers by the end of 2006; and
- MN-246 for the treatment of urinary incontinence, which is in a double-blind, randomized, placebo-controlled, single escalating dose Phase I clinical trial in healthy volunteers.

The following table summarizes our programs:

<b>Product Candidate</b>	<b>Disease/Indication</b>	<b>Phase of Development</b>	<b>Licensor</b>	<b>Licensed Territory</b>
MN-305	Generalized Anxiety Disorder	Phase II/III completed in Q2, 2006	Mitsubishi Pharma Corporation	Worldwide, except Japan, and certain countries in Asia
MN-001	Interstitial cystitis	Phase II/III enrollment completed in Q3 2006 in U.S.	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan and South Korea
MN-001	Bronchial asthma	Phase II completed in Q4, 2005 in U.S.; Phase III trial to be initiated by the end of 2006	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan, and South Korea
MN-166	Multiple sclerosis	Phase II initiated in 2H, 2005 in eastern Europe with enrollment completed in early 2006	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan and South Korea
MN-221	Status Asthmaticus	Phase II trial to be initiated by the end of 2006	Kissei Pharmaceutical	Worldwide, except Japan
MN-221	Preterm labor	Phase IIa initiated in U.S. in Q3 of 2006	Kissei Pharmaceutical	Worldwide, except Japan
MN-029	Solid tumors	Phase I ongoing in U.S.; Second Phase I completed in Q2, 2006 in U.S.; Phase II/III trial to be initiated by the end of 2006	Angiogene Pharmaceuticals	Worldwide
MN-246	Urinary incontinence	Phase I initiated in Q1, 2006 in U.S.	Mitsubishi Pharma Corporation	Worldwide, except Japan, and certain countries in Asia

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

- *Develop our diversified pipeline of existing product candidates to maximize value.* We have acquired a portfolio of novel, high-quality small molecule therapeutics that are based on proven pharmacology and have differentiating characteristics from available treatments. We intend to advance our clinical programs through the Phase II proof-of-concept stage and, at appropriate points of high-value inflection, to establish strategic alliances and partnerships to support Phase III clinical testing and commercialization of selected development programs.
- *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 larger biotechnology and pharmaceutical partners. We also intend to continue to seek potential co-marketing partners and potential future acquirers of license rights to our programs in markets outside the United States, with the goal of retaining significant commercial participation in these product opportunities.
- *Opportunistically in-license additional product candidates through our global industry relationships.* We intend to expand our pipeline of promising in-licensed product candidates over the long term by continuing to cultivate and strengthen our business relationships with pharmaceutical companies in Japan and other markets. We believe our ability to acquire product candidates with high potential and extensive pre-clinical or early clinical data from Japanese pharmaceutical companies provides us with a competitive advantage over other drug development companies in the U.S. market. We believe that additional diversification and expansion of our pipeline of product candidates will help maximize the commercial opportunity and mitigate the risks inherent in drug discovery and development.
- *Selectively add commercial capabilities as our development programs mature.* To ensure our ability to build a sustainable business, we plan to add capabilities to our management team to support our evolution into a commercial entity. We may develop a focused product-driven marketing and sales organization to promote some of our product candidates. We plan to carefully manage our growth and to focus on investing in high-value areas that will strengthen our company over the long-term.

### **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.

Our product acquisitions have focused on 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 existing data in



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preparing IND applications and designing additional clinical trials to advance the regulatory approval process in the United States. Following are details of our eight product development programs:

### *MN-305 for Generalized Anxiety Disorder*

*Indication Overview and Market Opportunity.* 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 patient's performance of tasks and 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 2006 report from DataMonitor, a market research organization, worldwide sales of prescription drugs for the treatment of anxiety disorders are forecast to reach \$4.5 billion in 2006.

A variety of pharmacologic agents are used to manage patients with anxiety disorders. Benzodiazepines have been the mainstay of the treatment of acute anxiety since the late 1960s. However, their efficacy as a treatment has been limited by problems faced in chronic use due to their sedative effects. In the late 1980s, buspirone was introduced and widely used even though it takes effect slowly. Buspirone was well tolerated and relatively safe. During the late 1990s, newer anti-depressants, notably the specific serotonin reuptake inhibitors, or SSRIs, were increasingly used to treat anxiety as well. While effective, these anti-depressants result in a variety of undesirable side effects, including agitation and sexual dysfunction. Also, the SSRIs may take weeks to exert their beneficial effects. 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 generally considered to be under-diagnosed and, consequently, they are often under-treated.

*Overview of MN-305.* MN-305 is a serotonin receptor agonist with high affinity and selectivity for the serotonin 5-HT<sub>1A</sub> 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 Corporation. MN-305 has been shown to be more potent than buspirone and to show anti-anxiety efficacy in a wide range of pre-clinical rodent models. For example, in a social interaction test, MN-305 prolonged the duration of social interaction in rats. Pre-clinical and clinical studies conducted by Mitsubishi Pharma Corporation also suggest that MN-305 may have a more rapid onset of action than buspirone.

*Clinical Results.* 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 Corporation 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 score, or HAM-A score, a scale used to measure the intensity of anxiety symptoms, was reduced compared to the pre-treatment value. Similarly, a majority of the patients were rated "Moderately Improved" or better following treatment with MN-305. In addition, in several clinical trials conducted by Mitsubishi Pharma Corporation in healthy volunteers and patients with anxiety disorders and Major Depressive Disorder, MN-305 was well tolerated. These studies did not evaluate the reduction of anxiety symptoms in patients that were not treated with MN-305.

The U.S. IND for MN-305 was transferred to us from Mitsubishi Pharma Corporation, enabling us to initiate this trial. In the second quarter of 2006, we completed a Phase II/III randomized, double-blind, placebo-controlled clinical trial in 416 patients with Generalized Anxiety Disorder. The results revealed trends for improvement in all efficacy outcome measures. Statistically significant improvements in anxious mood, which is item 1 of the HAM-A score, were observed through eight weeks of treatment. However, statistical significance

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on change from baseline of the total HAM-A score, the primary outcome measure of the trial was not achieved. MN-305 was well tolerated at all doses in the trial and we believe the findings were sufficiently positive and encouraging to warrant further clinical evaluation of this novel drug.

*Development Plans.* We continue to analyze the results from our Phase II/III trial of MN-305 in Generalized Anxiety Disorder, including performing in-depth analyses of subgroups that showed statistically significant improvement in certain aspects of the HAM-A score. Based on these results, we intend to finalize our development strategy for MN-305 by the end of 2006.

### *MN-001 for Interstitial Cystitis*

*Indication Overview and Market Opportunity.* Interstitial cystitis, or IC, is a chronic disease of the bladder characterized by urinary frequency and urgency, night-time urination and pelvic and bladder pain. 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 the National Kidney and Urologic Diseases Information Clearinghouse, or NKUDIC, a division of the U.S. National Institutes of Health, over 800,000 patients suffer from IC in the United States, 94% of whom are women. The prevalence in Europe is about one-third that of the United States. We believe that IC is currently underdiagnosed. With the introduction of effective new treatments, we believe that the market for drugs that treat IC will likely expand.

*Overview of MN-001 in Interstitial Cystitis.* MN-001 is a novel, orally bioavailable anti-inflammatory compound for the treatment of IC. 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. We are pursuing parallel development of MN-001 in asthma and IC to maximize the benefits of the existing pre-clinical and clinical databases. MN-001 has been shown to block a number of the inflammatory mechanisms activated by mast cell degranulation that are important in the pathogenesis of inflammatory disorders including IC and asthma (e.g., leukotriene receptor antagonism and inhibition of phosphodiesterases III and IV, 5-lipoxygenase, phospholipase C and thromboxane A2). MN-001 produces anti-inflammatory effects in a variety of rodent models of IC and asthma; in these models, MN-001 reduces bladder hyper-reactivity much in the same way that it reduces airway hyper-reactivity in the lung.

*Development Status.* We have completed enrollment in a Phase II/III clinical trial of MN-001 in patients with IC. The pivotal-design Phase II/III clinical trial of MN-001 is a randomized, double-blind, placebo-controlled multi-center study in 305 patients with moderate-to-severe IC. The trial is being conducted at 34 clinical sites in the U.S. The primary endpoint of the study is the percentage of patients at least “moderately improved” for each treatment group in a patient-reported Global Response Assessment. We anticipate having results from this trial in early 2007.

### *MN-001 for Asthma*

*Indication Overview and Market Opportunity.* Asthma is a chronic inflammatory disease of the airways 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. According to the National Center for Health Statistics and the Global Initiative for Asthma, there are approximately 20 million asthma patients in the U.S. and 300 million worldwide.

Sales of asthma therapeutics, with over 160 million retail prescriptions written, increased to over \$13 billion in 2005. Leading treatments currently include inhaled corticosteroids (42%), bronchodilators (32%), and leukotriene antagonists (23%). Worldwide sales of inhaled corticosteroids were \$2.3 billion in 2005. Combination products of inhaled corticosteroids plus long acting beta agonists added an additional \$6.5 billion in

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sales. Inhaled steroids (e.g., fluticasone (Flovent®), beclomethasone (Vancril®)) are more broadly effective in blocking late phase inflammation, but their general side effects require careful monitoring. Leukotriene antagonists, such as montelukast (Singulair®) or zafirlukast (Accolate®), became available as a new asthma therapy in the late 1990s. These drugs block the actions of leukotrienes (pro-inflammatory chemical mediators) and the subsequent inflammation caused by eosinophil migration to the lungs. According to Merck's 2005 Annual Report, worldwide sales of montelukast (Singulair®), a leading leukotriene antagonist, were \$3 billion in 2005, a 13% increase over 2004 sales.

*Overview of MN-001 in Asthma.* MN-001 is a novel, orally bioavailable compound for the treatment of bronchial asthma. We have licensed MN-001 from Kyorin Pharmaceutical. In pre-clinical studies conducted by Kyorin Pharmaceutical and us *in vivo*, MN-001 combined the positive attributes of the leukotriene antagonists and inhaled steroids while maintaining an acceptable safety profile. In pre-clinical pharmacology studies, MN-001 inhibited airway hyper-reactivity through a reduction of airway inflammation. *In vitro* and animal studies also suggest that MN-001 affects 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 *in vitro* (e.g., 5-lipoxygenase and phosphodiesterase 4) and prevents migration of inflammatory cells to the lungs of rodents. In addition, in guinea pig asthma models, MN-001 was more selective than steroids in affecting cells involved in the inflammatory process and not those involved in cellular immunity.

*Clinical Results.* MN-001 has proven to be well tolerated to date in early clinical testing. Treatment-related adverse effects were mild, transient, reversible and included gastrointestinal discomfort such as diarrhea, loose stools, nausea and upper abdominal pain, consistent with findings in preclinical studies. We have conducted a randomized, double-blind, placebo-controlled, multi-center Phase II clinical trial in patients with mild-to-moderate asthma. In this trial, 147 patients were randomly assigned to receive placebo or MN-001 tablets in one of three oral dosing regimens for four weeks. The primary endpoint of the trial was achieved with a statistically significant improvement in mean forced expiratory volume in 1 second or, FEV<sub>1</sub>, after four weeks of treatment with 500 mg MN-001 TID compared to placebo (p=0.021; intent-to-treat, observed cases). A similar trend was observed for the 750 mg BID dose (p=0.058). Positive trends in secondary outcome measures were also observed in the 500 mg TID treatment group, including serial spirometry, morning and evening peak flow rates and PC20 values in a methacholine challenge test, each of which is a common measure of respiratory function. MN-001 was well tolerated in this trial with 89% of patients completing four weeks of treatment. There was no apparent difference between placebo and any of the active treatment groups in adverse events leading to discontinuation or in adverse events attributable to treatment.

*Development Plans.* We plan to initiate a Phase III clinical program in asthma with MN-001 by the end of 2006. Initial Phase III trials will focus on market differentiation in addition to safety and efficacy. Development of an extended release dosage form will parallel initial Phase III clinical testing.

### *MN-166 for Multiple Sclerosis*

*Indication Overview and Market Opportunity.* Multiple sclerosis, or MS, is an inflammatory disease of the central nervous system, or CNS, in which the body's immune system attacks the protective sheath surrounding nerve fibers. According to the National Institute of Neurological Disorders and Stroke, MS is believed to affect approximately 250,000 to 350,000 people in the United States. The most obvious effect of MS is its destruction of nerve fibers leading to the loss of muscle control. However, the disease also affects multiple CNS functions. Currently, there is no known cure for the disease. Relapsing-remitting MS, or RRMS, is the most common type of the disease, accounting for approximately 65% of MS patients, according to a Cognos study published by Decision Resources, Inc. Most patients with RRMS eventually progress to the secondary progressive form of the disease. According to *Med Ad News*, worldwide sales of drugs to treat MS exceeded \$6.2 billion in 2005.

The aim of treatment is to relieve symptoms of acute attacks, by limiting the disabling effects of relapses and limiting their frequency, and to minimize disability caused by disease progression. Steroids are used in

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treating MS to decrease the severity and shorten the duration of the attacks, but they do not change the course of the disease. Generally, corticosteroid use is limited to the short term treatment of MS, perhaps one to three weeks. It generally is believed that the side effects and safety risks of long-term corticosteroid therapy outweigh clinical benefits in extended MS treatment. More recently, immunosuppressive agents and techniques have been introduced for the treatment of MS. However, these treatments are only partially effective. Typically, they may slow the course of disease progression and mitigate its effects temporarily, but additional drugs are often required to address the various CNS dysfunctions caused by the disease. Furthermore, these treatments may have toxic side effects which often preclude their widespread use. Many patients continue to experience relapses and progression of the disease, despite taking these immunomodulators, which generally reduce the relapse rate by only about one-third. Currently, one of the most promising treatments for MS, beta-interferons, needs to be injected, which may result in inflammation at the injection site. Severe flu symptoms also may occur with the beta-interferons. We believe drugs that can be taken with less discomfort, particularly those that can be taken orally, would have wide-spread appeal.

*Overview of MN-166.* MN-166 is a novel oral anti-inflammatory agent. It has been widely used in Japan and Korea for over sixteen years to treat cerebrovascular disorders and to treat bronchial asthma. These clinical applications are based on the ability of MN-166 to improve blood flow in the brain and to reduce inflammation in the lungs. These mechanisms may also be operative in treating MS. We have licensed MN-166 from Kyorin Pharmaceuticals. Avigen, Inc. has filed a patent application on the molecule underlying MN-166 in neuropathic pain. Three of our directors are also directors of Avigen, Inc., and Avigen, Inc. stated publicly that it has screened these individuals from any involvement in or knowledge of the details or results of its development program.

*Clinical Results.* Because of its anti-inflammatory activity and relatively benign clinical safety profile, MN-166 was evaluated for potential activity in MS in two pilot clinical trials sponsored by academic investigators in Japan. In one open-label pilot trial, the investigators studied the effects of MN-166 on relapse rates in six MS patients who had a mean of four relapses per year. Following 12 to 20 months of treatment with MN-166, the average relapse rate was significantly reduced. Over this time frame, there was no significant change in the mean Expanded Disability Status Score, or EDSS, a measure of MS drug efficacy. No side effects of MN-166 were reported in this trial. In a second pilot trial involving 12 MS patients receiving MN-166 for four weeks, MN-166 normalized the levels of several chemical mediators of inflammation, including tumor necrosis factor alpha and interferon gamma.

*Development Plans.* We have obtained authorization from regulatory authorities in several countries in Central Eastern Europe and have completed enrollment in a Phase II multi-center, placebo-controlled, clinical trial of MN-166 involving 297 MS patients. Outcome measures will include safety, symptom assessments and serial imaging of the CNS via magnetic resonance imaging. Results from this trial are anticipated in the first quarter of 2007.

### *MN-221 for Status Asthmaticus*

*Indication Overview and Market Opportunity.* Status asthmaticus is a long-lasting and severe asthma episode in which asthma symptoms are not responsive to initial bronchodilator or corticosteroid therapy. Status asthmaticus is an emergency situation that can lead to death, emergency department treatment, and in some cases, hospital admission are indicated. Beta-agonist agents are the mainstays of acute treatment for these asthma attacks. The inhaled route is generally more effective, but in some severe cases there is so little airflow that inhalation does not work. In these cases, intravenous or subcutaneous administration may be used. Despite significant improvements in the treatment for asthma over the past 20 years, there has not been a corresponding decrease in either hospitalizations or deaths due to asthma. Data from the National Center for Health Statistics show that in 1980, 408,000 patients were hospitalized in the U.S. for asthma as compared with 497,000 patient admissions in 2004. There were 2,891 deaths due to asthma in 1980 and 4,100 in 2004. Visits to emergency departments for asthma increased from 1.5 million in 1990 to 1.8 million in 2004; over 25% of these visits resulted in hospitalizations. In 2004, according to the National Heart, Lung and Blood Institute, \$518 million was

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spent for emergency department visits due to asthma and \$2.7 billion for hospitalizations. There remains an unmet medical need for a safe and effective treatment that could prevent some of these hospitalizations.

*Overview of MN-221 in Status Asthmaticus.* MN-221 is a novel, highly selective  $\beta_2$ -adrenergic receptor agonist licensed from Kissei Pharmaceutical Co., Ltd. for development by us for the treatment of preterm labor and status asthmaticus. Preclinical studies conducted in vitro and in vivo show MN-221 to be highly selective for the  $\beta_2$ -adrenergic receptor. Moreover, in these studies, the  $\beta_1$ -adrenergic receptor stimulating activity of MN-221 was significantly less than that of other  $\beta_2$ -adrenergic receptor agonists in isolated rat atrium and in in vivo cardiac function tests in rats, dogs and sheep, suggesting that the stimulating action of older, less selective  $\beta_2$ -adrenergic receptor agonists on the heart may be reduced with MN-221 due to its greater  $\beta_2$ -adrenergic receptor selectivity.

*Development Plans.* We have developed and studied an intravenous formulation of MN-221 appropriate for hospital use. We plan to initiate a Phase II study in patients with status asthmaticus under a U.S. IND for this indication in the fourth quarter of 2006.

### *MN-221 for Preterm Labor*

*Indication Overview and Market Opportunity.* Preterm 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 birth is known to reduce the risk of complications. Despite extensive research into preterm labor during the past several decades, the rate of premature births has not decreased. National Vital Statistics and the U.S. Census Bureau data show that there were over 4 million live births in the United States each year from 2002 through 2004. The March of Dimes estimates that at least 12% of these births are preterm and that over \$15 billion is spent on caring for premature infants each year. According to a September 2004 publication in *British Medical Journal*, approximately 5% to 7% of all births in Europe occur before term.

Currently, therapy for preterm labor remains targeted at uterine contractions.  $\beta_2$ -adrenergic receptor agonists are widely used as first-line treatments for premature birth. The only FDA-approved treatment for preterm labor is ritodrine, a  $\beta_2$  agonist. However, ritodrine was withdrawn in 1999 from the U.S. market. The more widely used treatment for preterm labor, terbutaline, another  $\beta_2$  agonist, is not approved by the FDA for preterm labor. Atosiban, an oxytocin antagonist, is available in Europe, but was denied regulatory approval in the United States. The usefulness of these  $\beta_2$ -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.

*Overview of MN-221 in Preterm Labor.* We have licensed MN-221 from Kissei Pharmaceutical. In pre-clinical pharmacology studies in pregnant rats and sheep conducted by Kissei Pharmaceutical, MN-221 reduced the number of spontaneous or drug-induced uterine contractions. In rat and sheep studies in which MN-221 was compared to ritodrine and/or terbutaline, the potency of MN-221 was greater than those  $\beta_2$ -adrenergic receptor agonists currently used clinically for the treatment of preterm labor. Furthermore, in these studies, MN-221 delayed both normal and preterm labor in rats and caused a marked increase in the bodyweight of rat pups as a result of prevention of premature birth. Moreover, *in vitro* receptor binding studies conducted by Kissei Pharmaceutical suggest that the stimulating action of  $\beta_2$ -adrenergic receptor agonists on the heart, which is a problem with current drugs for treating preterm labor, may be reduced with MN-221 due to its selectivity for uterine  $\beta_2$ -adrenergic receptors.

*Clinical Results.* To date, pharmacokinetic and safety data has been generated from human experience with MN-221 by Phase I clinical studies in healthy male and non-pregnant female volunteers conducted by Kissei Pharmaceutical in Japan and the U.K. and a Phase I study in the United States conducted by us. A total of 234 healthy subjects received intravenous infusions of either MN-221 or a placebo. MN-221 was generally well

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tolerated. A pilot double-blind, placebo-controlled Phase II clinical trial of MN-221 was completed in 2004 by Kissei Pharmaceutical in 7 women in preterm labor in the U.K. A trend towards a reduction in the number of uterine contractions was observed in MN-221-treated women. No serious adverse events related to MN-221 were observed in this study.

*Development Plans.* We submitted a U.S. IND for MN-221 in December 2004, which was accepted by the FDA in January 2005. We have completed an additional Phase I study with a different dose regimen than previously studied. A Phase IIa clinical in healthy pregnant women was initiated in the third quarter of 2006. We intend to evaluate the pharmacokinetics of this dose regimen in healthy pregnant women prior to evaluating the efficacy of MN-221 in Phase II trial in women experiencing preterm labor.

### *MN-029 for Solid Tumors*

*Indication Overview and Market Opportunity.* The American Cancer Society estimates that more than 1.4 million Americans were diagnosed with cancer in 2005. Of these, more than 760,000 patients were diagnosed with lung, prostate, colon, rectum or breast solid tumor cancers. At least 570,000 patients are expected ultimately to die from cancer. According to recent estimates, the market potential for solid tumor cancer therapeutics exceeds \$15 billion in the U.S. alone. It also has been estimated by the American Cancer Society's *Cancer Facts and Figures 2006* that there are approximately 800,000 new cases of solid tumor cancers diagnosed annually in the U.S. and more than 6 million cases in developed markets.

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 disrupting agents, or VDAs. Angiogenesis inhibitors block the formation of new blood vessels formed in response to tumor growth. VDAs disrupt blood flow through existing tumor blood vessels. VDAs have a potential advantage over angiogenesis inhibitors because VDAs 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.

*Overview of MN-029.* MN-029 is a novel, small molecule VDA under development for the treatment of cancer. We licensed MN-029 from Angiogene Pharmaceuticals, Ltd. Several pre-clinical pharmacology studies conducted by Angiogene Pharmaceuticals and us have assessed the mechanism of action and anti-tumor activity of MN-029 *in vivo* in rodent models of breast adenocarcinoma, colon carcinoma, lung carcinoma and KHT sarcoma. In these studies, MN-029 damaged poorly formed tumor blood vessels by weakening tumor blood vessel walls and causing leakage, clotting and eventual vascular shutdown within the tumor. These studies suggest that MN-029 acts quickly and is rapidly cleared from the body, which may reduce the potential for some adverse effects commonly associated with chemotherapy. Shut-down of tumor blood flow in tumor models has been confirmed by dynamic contrast-enhanced magnetic resonance imaging.

*Clinical Results.* MN-029 is being evaluated as a treatment for solid tumors. Results from the first of its Phase I clinical trials of MN-029 in patients with solid tumors were presented at the 2006 Annual Meeting of the American Society of Clinical Oncology (ASCO). MN-029 significantly reduced tumor blood flow, a pharmacologic marker believed to predict clinical efficacy, at doses that were well tolerated, including doses below the maximum tolerated dose.

Results from an open-label, dose escalation, safety and pharmacokinetic Phase I study of MN-029 administered as an intravenous infusion once every three weeks with a 20-day recovery period between doses, or 1 cycle, showed that MN-029 was well tolerated at doses that reduced tumor blood flow. A maximum tolerated dose of 180 mg/m<sup>2</sup> was established in this study. The most common side effects of MN-029 were characteristic of other vascular disrupting agents and included nausea, vomiting, fatigue and diarrhea. Nine of the 34 patients enrolled in this study had stable disease after three cycles of treatment, including two patients with carcinoid tumors who received 27 cycles or more. Tumor blood flow reduction assessed by dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI) was recorded at doses greater than or equal to 120 mg/m<sup>2</sup>.

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*Development Plans.* We plan to initiate Phase II/III studies in ovarian and non-small cell lung solid tumor cancers by the end of 2006.

### *MN-246 for Urinary Incontinence*

*Indication Overview and Market Opportunity.* Urinary incontinence occurs when normal regulation of bladder function is lost. According to the American Foundation for Urologic Disease, urinary incontinence occurs more frequently in women than in men.

According to the NKUDIC, the number of patients in the United States suffering from urinary incontinence was over 13 million in 2005. According to the National Overactive Bladder Evaluation Program, over 35 million patients in the United States suffered from overactive bladder in 2005.

The market for drugs to treat urinary incontinence is expected to grow substantially as more patients seek treatment and as newer drugs are introduced to the market. The global market for urinary incontinence is projected by Datamonitor to grow to \$2 billion in 2010. The current marketplace is dominated by anti-cholinergic drugs that are modestly effective and produce treatment-limiting side effects such as dry mouth. According to Med Ad News, 2005 sales of the market leader Detrol were \$1 billion. According to IMS, the number two product, Ditropan XL, registered sales of \$449 million in 2004.

*Overview of MN-246.* MN-246 is a novel  $\beta_3$  adrenergic receptor agonist licensed by us from Mitsubishi Pharma Corporation. It represents a new approach to treating urinary incontinence and may have advantages over existing therapies, including improvements in efficacy through increases in bladder volume with decreases in involuntary bladder contractions and the absence of anti-cholinergic side effects such as dry mouth.

In pre-clinical studies in rats conducted by Mitsubishi Pharma Corporation, MN-246 was more potent and effective than oxybutynin and propiverine in increasing bladder volume. In addition, MN-246 produced little or no increase in residual urine volume. MN-246 produced no anti-cholinergic side effects in rats. MN-246 also demonstrated efficacy in studies conducted on dogs and monkeys in treating urinary incontinence.

*Development Plans.* We filed a U.S. IND application in February 2006 in order to evaluate the safety, tolerability and pharmacokinetics of MN-246 in a Phase I clinical trial which was initiated at the end of first quarter 2006.

### **Sales and Marketing**

We currently have no marketing and sales capability. Within the United States, we may develop a focused product-driven marketing and sales organization to promote our programs. The size and other features of our marketing and sales organization, if any, 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.

### **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 for the drug substance manufacture of small-scale batches of MN-001 and MN-246, Regis Technologies for the drug substance manufacture of MN-029 and Shiono Finesse, Ltd., for the drug substance manufacture of MN-221 for use in clinical trials. We currently engage Patheon to manufacture finished investigational preparations of MN-001 and MN-305 for use in clinical trials. We currently engage Evotec to manufacture finished investigational preparations of MN-221 for use in clinical trials. We currently engage Fulcrum Pharma Development to provide finished investigational preparations of MN-029 for use in clinical trials. We purchased MN-166 and placebo capsules from Kyorin Pharmaceutical for the Phase II trial in MS. We expect to continue to

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rely on third parties for the manufacture and distribution of products if they are 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 at 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 obtained licensed rights under ten issued U.S. patents and two U.S. patent applications. We also have obtained licensed rights to 64 issued and pending foreign patents corresponding to these U.S. patents. In addition to these licensed rights, we hold two issued U.S. patents and one U.S. patent application relating to MN-001 and its metabolite, MN-002. These 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-305*

We hold an exclusive, worldwide (excluding Japan, Singapore, Brunei, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Bangladesh, Pakistan, South Korea, China and Taiwan) sublicenseable license for MN-305 from Mitsubishi Pharma Corporation. A U.S. composition of matter patent covering MN-305 was issued on December 1, 1992 (set to expire on March 14, 2011). Corresponding composition of matter patents are issued in most of the European countries and in Canada. An additional two methods of use patents are also issued in the United States and in other countries. In the United States, these additional patents are set to expire on May 19, 2018 and August 19, 2018, respectively.

### *MN-001*

We hold an exclusive, worldwide (excluding Japan, China, South Korea and Taiwan) sublicenseable license 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 on January 15, 1991 (set to expire on February 23, 2009) and on March 1, 1994 for MN-002 (set to expire on December 30, 2011). Corresponding composition of matter patents are issued in several other countries throughout the world. We filed and the U.S. Patent and Trademark Office issued two patents covering certain compositions, uses and manufacturing processes associated with MN-001 in July 2006. Related patent applications are pending in several other countries throughout the world. These patents provide exclusivity in the United States through 2023. We also filed a patent application covering certain uses of MN-001 and MN-002, including interstitial cystitis, in 2005.



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### *MN-166*

We hold an exclusive, worldwide (excluding Japan, China, South Korea and Taiwan) sublicenseable license from Kyorin Pharmaceutical to patents related to MN-166, covering the use of MN-166 to treat patients afflicted with multiple sclerosis. The MN-166 compound is not covered by a composition of matter patent. A U.S. method of use patent for MN-166 was issued on May 28, 2002. Corresponding patent applications are pending in several other countries. The U.S. patent is set to expire on August 10, 2018.

### *MN-221*

We hold an exclusive, worldwide, excluding Japan, sublicenseable license 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 of matter patents are issued in various other countries. Corresponding methods of use patent applications are pending in several other countries throughout the world. The composition of matter patent is set to expire on February 18, 2017.

### *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 on November 11, 2003 (set to expire on January 14, 2020). Corresponding composition patents are pending in several other countries throughout the world. Additional methods of use patent applications are pending in several other countries throughout the world.

### *MN-246*

We hold an exclusive, worldwide (excluding Japan, Singapore, Brunei, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Bangladesh, Pakistan, South Korea, China and Taiwan), sublicenseable license for MN-246 from Mitsubishi Pharma Corporation. A U.S. composition of matter patent covering MN-246 was issued on May 30, 2000, which is set to expire on October 24, 2016. This patent also contains claims to a process of making the compounds of interest, pharmaceutical compositions containing these compounds and various methods of use, including the treatment of accelerated or spasmodic gastrointestinal motility, dysuria, pollakisuria, urinary incontinence, obesity and diabetes. Foreign counterparts are either pending or granted in several other countries throughout the world. These foreign counterparts are also set to expire on October 24, 2016.

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.

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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 issued or that, if issued, 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, our third-party manufacturers, contractors, suppliers and partners 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.*

*Overview.* 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;
- submission of an application for an exemption for an Investigational New Drug, or 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 product candidate for each indication for which approval is sought;
- submission to the FDA of a New Drug Application, or NDA;
- development of manufacturing processes which conform to FDA-mandated cGMPs and satisfactory completion of our FDA inspection to assess compliance; and
- FDA review and approval of an 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, or at all.

*Pre-Clinical Tests.* Pre-clinical tests include laboratory evaluation of the product candidate, its chemistry, toxicity, formulation and stability, as well as animal studies to assess the potential safety and efficacy of the product candidate. The results of the pre-clinical tests, together with manufacturing information, analytical data and other available information about the product 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. The IND application will automatically become effective 30 days after its receipt by the FDA unless the FDA,

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before that time, raises concerns or questions about the information provided and/or the conduct of the studies as outlined in the IND application. At any time thereafter, the FDA may raise concerns or questions about the conduct of the trials as outlined in the IND application and even impose a clinical hold if the FDA deems appropriate. 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.

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

- Phase I: The drug is initially introduced into 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: The drug is introduced into an expanded patient population at geographically dispersed clinical study sites to further evaluate clinical efficacy and safety.

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

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. 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.

Upon submission of the NDA, the FDA will make a threshold determination as to 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 product candidate subject to the completion of post-marketing studies, referred to as Phase IV trials. 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 Other Requirements.* Both before and after approval, we and our third-party manufacturers are to comply with a number of requirements. For example, certain changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims are subject to

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additional FDA review and approval. Advertising and other promotional material must comply with FDA requirements and established requirements applicable to drug samples. 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. Manufacturers must provide certain safety and efficacy information 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.

The FDA's policies may change and additional government regulations may be promulgated which could prevent or delay regulatory approval of our products. Moreover, increased attention to the containment of health care costs in the United States 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 ethics committees 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 90 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.

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### *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.

### **Employees**

We have assembled an experienced and cohesive management and support team, with core competencies in general management, clinical development, regulatory affairs and corporate development. As of October 26, 2006, we have 24 employees, all of whom are full-time employees. We believe that our relations with our employees are good and we have no history of work stoppages.

## OUR MANAGEMENT

### Directors and Executive Officers

The following table shows information about our directors and executive officers:

Name	Age	Position(s)
Yuichi Iwaki, M.D., Ph.D.	57	Executive Chairman of the Board of Directors, President and Chief Executive Officer and Acting Chief Financial Officer (2)
Alan W. Dunton, M.D.	52	Director (1)
Jeff Himawan, Ph.D.	40	Director (1)
Arlene Morris	54	Director (3)
Hideki Nagao	49	Director (1)
John K.A. Prendergast, Ph.D.	52	Director (3)
Daniel Vapnek	67	Director (2)
Richard E. Gammans, Ph.D.	57	Chief Development Officer
Kenneth W. Locke, Ph.D.	49	Chief Business Officer
Masatsune Okajima	38	Vice President and Head of Japanese Office
Shintaro Asako, CPA	32	Vice President, Accounting and Administration

- (1) Serves as a Class I director, who will serve until the 2008 Annual Meeting of Stockholders.
- (2) Serves as a Class II director, who will serve until the 2009 Annual Meeting of Stockholders.
- (3) Serves as a Class III director, who will serve until the 2007 Annual Meeting of Stockholders.

*Yuichi Iwaki* is a founder of MediciNova and has served as the chairman of our board of directors since our inception in September 2000, becoming Executive Chairman in July 2005, Acting Chief Executive Officer as of September 30, 2005 and Chief Executive Officer as of March 15, 2006. 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, and Kyushu University. 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 book chapters. 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, a Nasdaq listed biotechnology company.

*Alan Dunton* has served as a director of MediciNova since May 2006. Dr. Alan W. Dunton is a recognized expert in prescription drug development and clinical research. His twenty years of experience are marked by the development and approval of the prescription drugs Levaquin<sup>®</sup> (antibiotic), TOPAMAX<sup>®</sup> (migraine), Reminyl<sup>®</sup> (Alzheimer's disease), Regranex<sup>®</sup> (diabetic foot ulcers), Risperdal<sup>®</sup> (antipsychotic) as well as the successful OTC product Aleve<sup>®</sup> (arthritis). Most recently, since February 2003, Dr. Dunton was President and CEO of Metaphore Pharmaceuticals. Metaphore was acquired by ActivBiotics in December 2005. Before joining Metaphore, Dr. Dunton was the President and Managing Director of the Janssen Research Foundation, a Johnson & Johnson company. In this capacity, he was responsible for the research and development of new prescription drug products marketed by the Johnson & Johnson family of companies worldwide. He was a member of the Group Operating Committee of the J&J Pharmaceutical Group, a member of the Board of Janssen Pharmaceutica, N.V. and Chairman of Janssen-Cilag, International. His experiences also included positions with Roche, CIBA-GEIGY (now Novartis) and Syntex (now Roche). Dr. Dunton also developed and implemented an Ethical Code for the Conduct of Clinical Research and was a recipient of the prestigious Nellie Westerman Prize from the American Federation of Clinical Research for his work in medical ethics. Dr. Dunton received his M.D.

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degree from New York University School of Medicine and completed his post-graduate training in Internal Medicine at the New York University Medical Center/Bellevue Hospital VA Medical Center and in Clinical Pharmacology at Cornell University Medical College/New York Hospital.

*Jeff Himawan* became a director of MediciNova in January 2006. Dr. Himawan is a Managing Director of Essex Woodlands Health Ventures, which he joined in 2001. Essex Woodland Health Ventures and its affiliates own approximately 11.8% of our outstanding common stock. Prior to joining Essex Woodlands Health Ventures, Dr. Himawan was Managing Director and Co-founder of Seed-One Ventures, where he managed the early corporate development of Elusys Therapeutics and Sensatex. Prior to Seed-One, he was a scientist in academic and industrial settings. Dr. Himawan holds a B.S. in biology from the Massachusetts Institute of Technology and a Ph.D. in biological chemistry and molecular pharmacology from Harvard University.

*Arlene Morris* has served as a director of MediciNova since May 2006. Arlene Morris brings significant expertise in the establishment of strategic partnerships, marketing and operations to MediciNova. She was appointed President and CEO of Affymax, Inc. in June 2003. From 2001 to 2003, Ms. Morris served as the President and CEO of Clearview Projects. Prior to that, Ms. Morris served from 1996 to 2001 as the Senior Vice President, Business Development for Coulter Pharmaceutical. Prior to that, Ms. Morris was the Vice President of Business Development at Scios Inc. from 1993 to 1996, where she completed several high profile transactions including one of the first biotech profit-sharing deals for a late-stage product. From 1977 through 1993, Ms. Morris held various management and executive positions at Johnson & Johnson in sales, marketing, new product development and business development, holding the position of Vice President of Business Development for McNeil Pharmaceutical from 1988 to 1993. She received her B.A. degree in Biology and Chemistry from Carlow College and studied marketing at Western New England College. Arlene is also on the Board of BIO, the Biotechnology Industry Organization.

*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 the Development Bank of Japan. He graduated from the Faculty of Law of Tokyo University.

*John K.A. Prendergast* 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 chairman of the audit, governance and compensation committees. Dr. Prendergast is a co-founder and currently chairman of the board of directors of Palatin Technologies, Inc., whose shares trade on the American Stock Exchange, 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 B.Sc., 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* 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. From February 1994 to May 2001, Dr. Vapnek was a member of the board of directors of CIPHERGEN, a Nasdaq listed biotechnology company. From October 2000 to November 2004, Dr. Vapnek served on the board of directors of Protein Pathways, a privately held biotechnology company, and served as chairman of the board and CEO from January 2002 to November 2004. Since March 2001, Dr. Vapnek has served on the board of directors of BioArray Solutions, Inc., a privately held molecular diagnostics company which Dr. Vapnek co-founded in 1996. Since February 2002, he has served on the board of directors of Avigen, Inc. and is a member of Avigen's governance and compensation committees. Dr. Vapnek received a Ph.D. in Microbiology and a B.S. in Zoology from the University of Miami.

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*Richard E. Gammans* served as our Executive Vice President, Clinical Research from June 2004, when he joined MediciNova, to May 2005, when he was promoted to Chief Development Officer. From June 2000 to June 2004, he was Executive Vice President, Research and Development at Incara Pharmaceuticals, a public biopharmaceutical company where he was the executive officer responsible for research, development and regulatory affairs, a member of the corporate controls committee and the executive financing and business development team. From March 1994 to May 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, clinical pharmacology and clinical research and responsibility as Global Project Director for the anti-depressant, Serzone. Dr. Gammans received M.S. and Ph.D. degrees from the University of Georgia School of Pharmacy and holds an M.S. in Management from Purdue University.

*Kenneth W. Locke* has worked for MediciNova since inception in 2000 in the capacities of Vice President, Research; Senior Vice President, Development Operations & Drug Discovery; and became Senior Vice President, Portfolio Management in June 2004. Dr. Locke was promoted to Chief Business Officer in November 2005. Dr. Locke was formerly Vice President of Research at Tanabe Research Laboratories U.S.A., Inc. where he worked since May 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 earned an M.S. and Ph.D. in Pharmacology from Emory University School of Medicine.

*Masatsune Okajima* was appointed as our Vice President and Head of Japanese Office in September 2006. Since 2002, he has served as Deputy General Manager, Daiwa Securities SMBC Co., Ltd. From 1999 through 2002, Mr. Okajima served as Manager, Daiwa Securities SB Capital Markets Co., Ltd. (currently Daiwa Securities SMBC Co., Ltd.). From 1996 to 1999, Mr. Okajima served as Manager, Sumitomo Capital Securities Co., Ltd. and between 1991 and 1996 Mr. Okajima served in various positions at Sumitomo Bank, Ltd. (currently Mitsui Sumitomo Bank). Mr. Okajima graduated with a B.S. Degree from the Department of Science and Technology, Tokyo Science University.

*Shintaro Asako* was appointed as our Vice President, Accounting and Administration in November 2005 and served as our Vice President, Accounting and Financial Reporting from July 2005 to October 2005. Mr. Asako became our Vice President, Accounting and Administration in November 2005. From October 2004 to July 2005, Mr. Asako was an audit senior manager at KPMG LLP, where he provided a variety of audit and business consulting services to multinational clients and industries including pharmaceutical, manufacturing, distribution and freight-forwarding and transportation. Mr. Asako was also responsible for the development and expansion of KPMG's Japanese practice in the Orange County and San Diego areas. Prior to becoming audit senior manager, Mr. Asako held the positions of supervisory senior auditor from June 2002 to March 2003 and audit manager from April 2003 to September 2004. Before joining KPMG, he spent four years with Arthur Andersen LLP providing audit and tax advisory services. Mr. Asako is a graduate of the Leventhal School of Accounting at the University of Southern California. Mr. Asako is a certified public accountant of the state of California and a member of the American Institute of Certified Public Accountants.

### **Independent Directors and Audit Committee**

The Board believes that a majority of the Board members should be independent directors. The Board also believes that it is useful and appropriate to have members of management, including the Chief Executive Officer, as directors. The Board has determined that each of our directors other than Drs. Iwaki and Himawan is an independent director as defined by the listing standards of the Nasdaq Marketplace Rules (the "Nasdaq Rules") and the rules and regulations of the U.S. Securities and Exchange Commission (the "SEC").



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The members of the Audit Committee each meet the independence standards established by the SEC for audit committees. Although each member of the Audit Committee has been selected by the Board based on its determination that the Audit Committee members are fully qualified to monitor the performance of management, our public disclosures of our financial condition and results of operations, our internal controls over financial reporting and the performance of our independent auditors, as well as to analyze and evaluate our financial statements, the Board has determined that none of the members of the Audit Committee meets all of the criteria set forth in the SEC rules to qualify as an “audit committee financial expert.” The Board has determined that it is appropriate for the Audit Committee not to have an “audit committee financial expert” at this time because our financial statements are not overly complex, given the current stage of our development, and because we do not currently have any revenues from the commercialization of our product candidates.

### **Board Committees**

The Board has three standing committees which were formed in September 2004 in anticipation of our initial public offering: the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee. The Board appoints the members and chairpersons of these committees. Each member of these committees is an independent director in accordance with the Nasdaq Rules and the rules and regulations of the SEC. Each committee has a written charter approved by the Board. The members of each committee and the functions of each committee are set forth below:

#### ***Audit Committee***

The members of the Audit Committee are Dr. Prendergast (Chairman), Dr. Vapnek, Mr. Nagao and Dr. Dunton. The Audit Committee assists the Board in fulfilling its legal and fiduciary obligations in matters involving the Company’s accounting, auditing, financial reporting, internal control and legal compliance functions by approving the services performed by the Company’s independent registered public accounting firm and reviewing its reports regarding the Company’s accounting practices and systems of internal accounting controls. The Audit Committee is responsible for the appointment, compensation, retention and oversight of the independent registered public accounting firm and for ensuring that such firm is independent of management.

#### ***Compensation Committee***

The members of the Compensation Committee are Dr. Prendergast (Chairman), Dr. Vapnek, Mr. Nagao and Ms. Morris. The Compensation Committee determines the Company’s general compensation policies and practices. The Compensation Committee reviews and approves compensation packages for the Company’s officers and, based upon such review, recommends overall compensation packages for the officers to the Board. The Compensation Committee also reviews and determines equity-based compensation for the Company’s directors, officers, employees and consultants and administers the Company’s stock option plans.

#### ***Nominating and Corporate Governance Committee***

The members of the Nominating and Corporate Governance Committee are Dr. Prendergast (Chairman), Dr. Vapnek, Mr. Nagao, Dr. Dunton and Ms. Morris. The Nominating and Corporate Governance Committee is responsible for making recommendations to the Board regarding candidates for directorships and the size and composition of the Board and for overseeing the Company’s corporate governance guidelines and reporting and making recommendations to the Board concerning corporate governance matters.

## THE SECURITIES WE MAY OFFER

We may, from time to time, offer under this prospectus:

- shares of common stock,
- shares of one or more series of preferred stock,
- one or more series of debt securities, and
- warrants to purchase shares of common stock or preferred stock, debt securities or any combination of such shares and debt securities,

separately, together or as units with other offered securities, in one or more offerings. The aggregate initial offering price of the offered securities will not exceed \$100,000,000 (such amount represents the issue price rather than the principal amount of any debt securities issued at original issue discount).

## DESCRIPTION OF THE COMMON STOCK WE MAY OFFER

The following description of our common stock is only a summary. We encourage you to read our certificate of incorporation and bylaws, which are incorporated into the registration statement of which this prospectus forms a part. We also refer you to the section of this prospectus entitled “Anti-Takeover Effects of Delaware Law, Our Certificate of Incorporation and Our Bylaws” for a discussion of certain provisions that could make our acquisition by a third party, a change in our incumbent management, or a similar change of control more difficult. As of the date of this prospectus, we are authorized to issue up to 200,000,000 shares of common stock, par value \$0.001 per share. As of October 26, 2006, there were 103,163,856 shares of our common stock issued and outstanding.

Subject to preferences that may be applicable to any shares of preferred stock outstanding from time to time, if any, 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 subject to preemptive rights and will not be 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 our common stock is duly and validly issued, fully paid and non-assessable.

## DESCRIPTION OF THE PREFERRED STOCK WE MAY OFFER

The following briefly summarizes the material terms of our preferred stock, other than pricing and related terms that will be disclosed in an accompanying prospectus supplement. You should read the particular terms of any series of preferred stock offered by us, which will be described in more detail in any prospectus supplement relating to such series, together with the more detailed provisions of our certificate of incorporation and the

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certificate of designation relating to each particular series of preferred stock for provisions that may be important to you. The certificate of designation relating to the particular series of preferred stock offered by an accompanying prospectus supplement and this prospectus will be filed as an exhibit to a document incorporated by reference in the registration statement. The prospectus supplement will also state whether any of the terms summarized below do not apply to the series of preferred stock being offered. We also refer you to the section of this prospectus entitled “Anti-Takeover Effects of Delaware Law, Our Certificate of Incorporation and Our Bylaws” for a discussion of certain provisions that could make our acquisition by a third party, a change in our incumbent management, or a similar change of control more difficult.

As of the date of this prospectus, we are authorized to issue up to 5,000,000 shares of preferred stock, par value \$0.01 per share, of which, no shares of preferred stock are outstanding. Our board of directors is authorized, subject to any limitations prescribed by law, without stockholder approval, to issue from time to time up to an aggregate of 5,000,000 shares of preferred stock in one or more series. Each series of preferred stock will have the voting powers, preferences and relative, participating, optional and other special rights, and the qualifications, limitations and restrictions, as our board of directors determines.

Whenever preferred stock is to be sold pursuant to this prospectus, we will file a prospectus supplement relating to that sale which will specify:

- the number of shares in the series of preferred stock;
- the designation for the series of preferred stock by number, letter or title that will distinguish the series from any other series of preferred stock;
- the dividend rate, if any, and whether dividends on that series of preferred stock will be cumulative, non-cumulative or partially cumulative;
- the voting rights of that series of preferred stock, if any;
- any conversion provisions applicable to that series of preferred stock;
- any redemption or sinking fund provisions applicable to that series of preferred stock;
- the liquidation preference per share of that series of preferred stock; and
- the terms of any other preferences or rights, if any, applicable to that series of preferred stock.

The transfer agent, registrar, dividend disbursing agent and redemption agent, if any, for shares of each series of preferred stock will be named in the prospectus supplement relating to such series.

### **DESCRIPTION OF THE DEBT SECURITIES WE MAY OFFER**

This prospectus describes the general terms and provisions of the debt securities we may offer and sell by this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a prospectus supplement. We will also indicate in the prospectus supplement whether the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may offer under this prospectus up to \$100,000,000 in aggregate principal amount of debt securities, or if debt securities are issued at a discount, or in a foreign currency or composite currency, such principal amount as may be sold for an initial offering price of up to \$100,000,000. We may offer debt securities in the form of either senior debt securities or subordinated debt securities. The senior debt securities and the subordinated debt securities are together referred to in this prospectus as the “debt securities.” Unless otherwise specified in a prospectus supplement, the senior debt securities will be our direct, unsecured obligations and will rank equally with all of our other unsecured and unsubordinated indebtedness. The subordinated debt securities generally will be entitled to payment only after payment of our senior debt.

The debt securities will be issued under an indenture between us and a trustee. We have summarized the general features of the debt securities to be governed by the indenture. The summary is not complete. The

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executed indenture will be incorporated by reference from a current report on Form 8-K. We encourage you to read the indenture, because the indenture, and not this summary, will govern your rights as a holder of debt securities. Capitalized terms used in this summary will have the meanings specified in the indenture. References to “we,” “us” and “our” in this section, unless the context otherwise requires or as otherwise expressly stated, refer to MediciNova, Inc.

### **General**

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors, or a committee thereof, and set forth or determined in the manner provided in an officers’ certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series, including any pricing supplement.

We may issue an unlimited amount of debt securities under the indenture, and the debt securities may be in one or more series with the same or various maturities, at par, at a premium or at a discount. Except as set forth in any prospectus supplement, we will also have the right to “reopen” a previous series of debt securities by issuing additional debt securities of such series without the consent of the holders of debt securities of the series being reopened or any other series. Any additional debt securities of the series being reopened will have the same ranking, interest rate, maturity and other terms as the previously issued debt securities of that series. These additional debt securities, together with the previously issued debt securities of that series, will constitute a single series of debt securities under the terms of the applicable indenture.

We will set forth in a prospectus supplement, including any pricing supplement, relating to any series of debt securities being offered, the aggregate principal amount and other terms of the debt securities, which will include some or all of the following:

- the form (including whether the debt securities will be issued in global or certificated form) and title of the debt securities;
- the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities;
- any limit on the aggregate principal amount of the debt securities;
- the date or dates on which we will pay the principal on the debt securities;
- the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest;
- the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where principal of, and premium and interest on, the debt securities will be payable;
- the terms and conditions upon which we may redeem the debt securities;
- any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities;
- the dates on which and the price or prices at which we will repurchase debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;
- the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;
- the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;
- the currency of denomination of the debt securities;

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- any provisions relating to any security provided for the debt securities;
- any addition to or change in the events of default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
- any addition to or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;
- any conversion provisions, including the security into which the debt securities are convertible, the conversion price, the conversion period, provisions as to whether conversion will be mandatory, at the option of the holder or at our option, the events requiring an adjustment of the conversion price and provisions affecting conversion if such series of debt securities are redeemed;
- whether the debt securities will be senior debt securities or subordinated debt securities and, if applicable, a description of the subordination terms thereof;
- any depositories, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities; and
- any other terms of the debt securities, which may modify, delete, supplement or add to any provision of the indenture as it applies to that series.

We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of, and premium and interest on, any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

### **Transfer and Exchange**

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, as Depository, or a nominee (we will refer to any debt security represented by a global debt security as a “book-entry debt security”), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a “certificated debt security”) as set forth in the applicable prospectus supplement.

You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of, and any premium and interest on, certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

### **No Protection in the Event of a Change of Control**

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

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### **Covenants**

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

### **Consolidation, Merger and Sale of Assets**

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to, any person, which we refer to as a successor person, unless:

- we are the surviving corporation or the successor person (if other than us) is organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture;
- immediately after giving effect to the transaction, no event of default, and no event which, after notice or lapse of time, or both, would become an event of default, shall have occurred and be continuing under the indenture; and
- certain other conditions are met, including any additional conditions described in the applicable prospectus supplement.

### **Events of Default**

Event of default means, with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of that default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);
- default in the payment of principal of or premium on any debt security of that series when due and payable;
- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 90 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding debt securities of that series as provided in the indenture;
- certain events of bankruptcy, insolvency or reorganization of our company; and
- any other event of default provided with respect to debt securities of that series that is described in the applicable prospectus supplement.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. The occurrence of an event of default may constitute an event of default under our bank credit agreements in existence from time to time. In addition, the occurrence of certain events of default or an acceleration under the indenture may constitute an event of default under certain of our other indebtedness outstanding from time to time.

If an event of default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than a majority in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of, and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid

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interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an event of default.

The indenture provides that the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of outstanding debt securities, unless the trustee receives indemnity satisfactory to it against any loss, liability or expense. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing event of default with respect to debt securities of that series; and
- the holders of at least a majority in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding the foregoing, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, and any premium and interest on, that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

If any securities are outstanding under the indenture, the indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any default or event of default (except in payment on any debt securities of that series) with respect to debt securities of that series if it in good faith determines that withholding notice is in the interest of the holders of those debt securities.

### **Modification and Waiver**

We may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of, or premium on, or change the fixed maturity of, any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;

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- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of, or premium or interest on, any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of, or premium or interest on, any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, and premium and interest on, those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to any debt security.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, or any premium or interest on, any debt security of that series or in respect of a covenant or provision, which cannot be modified or amended without the consent of the holder of each outstanding debt security of the series affected; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

### **Discharging Our Obligations**

We may choose to either discharge our obligations on the debt securities of any series in a legal defeasance, or to release ourselves from our covenant restrictions on the debt securities of any series in a covenant defeasance. We may do so at any time after we deposit with the trustee sufficient cash or government securities to pay the principal, interest, any premium and any other sums due to the stated maturity date or a redemption date of the debt securities of the series. If we choose the legal defeasance option, the holders of the debt securities of the series will not be entitled to the benefits of the indenture except for registration of transfer and exchange of debt securities, replacement of lost, stolen, destroyed or mutilated debt securities, conversion or exchange of debt securities, sinking fund payments and receipt of principal and interest on the original stated due dates or specified redemption dates.

We may discharge our obligations under the indenture or release ourselves from covenant restrictions only if, in addition to making the deposit with the trustee, we meet some specific requirements. Among other things:

- we must deliver an opinion of our legal counsel that the discharge will not result in holders having to recognize taxable income or loss or subject them to different tax treatment. In the case of legal defeasance, this opinion must be based on either an IRS letter ruling or change in federal tax law;
- we may not have a default on the debt securities discharged on the date of deposit;
- the discharge may not violate any of our agreements; and
- the discharge may not result in our becoming an investment company in violation of the Investment Company Act of 1940.

### **Governing Law**

The indenture and the debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York, without regard to conflict of law principles that would result in the application of any law other than the laws of the State of New York.



## DESCRIPTION OF THE WARRANTS WE MAY OFFER

This section describes the general terms and provisions of the warrants we may offer and sell by this prospectus. The applicable prospectus supplement will describe the specific terms of the warrants offered through that prospectus supplement as well as any general terms described in this section that will not apply to those warrants.

We may issue warrants for the purchase of shares of our common stock or preferred stock, debt securities or any combination of such shares and debt securities. We may issue warrants independently or together with other securities, and they may be attached to or separate from the other securities. Each series of warrants will be issued under a separate warrant agreement that we will enter into with a bank or trust company, as warrant agent, as detailed in the applicable prospectus supplement. The warrant agreement will be filed as an amendment to the registration statement of which this prospectus forms a part or filed in a current report on Form 8-K and incorporated by reference in the registration statement of which this prospectus form a part. The warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation, or agency or trust relationship, with you.

The prospectus supplement relating to a particular issue of warrants will describe the terms of those warrants, including, where applicable:

- the aggregate number of the securities covered by the warrant;
- the designation, amount and terms of the securities purchasable upon exercise of the warrant;
- the exercise price for our debt securities, the amount of debt securities upon exercise you will receive, and a description of that series of debt securities;
- the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise, and a description of that series of our preferred stock;
- the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise;
- the expiration date for exercising the warrant;
- the minimum or maximum amount of warrants that may be exercised at any time;
- a discussion of U.S. federal income tax consequences; and
- any other material terms of the securities warrants.

After the warrants expire they will become void. The prospectus supplement will describe how to exercise warrants. The prospectus supplement may provide for the adjustment of the exercise price of the securities warrants.

**ANTI-TAKEOVER EFFECTS OF DELAWARE LAW,  
OUR CERTIFICATE OF INCORPORATION AND OUR BYLAWS**

**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:

- prior to such time, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- 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 (in one transaction or a series of transactions) of 10% or more of either the aggregate market value of all the assets of the corporation or the aggregate market value of all the outstanding stock 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 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.

The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

**Removal of Directors and Vacancies**

Our certificate of incorporation and our bylaws provide that directors may be removed only for cause and only by the affirmative vote of the holders of a majority of our shares of capital stock present in person or by proxy and entitled to vote. Under our certificate of incorporation and bylaws, any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office. The limitations on the ability of our stockholders to remove directors and fill vacancies could make it more difficult for a third-party to acquire, or discourage a third-party from seeking to acquire, control of our company.

**No Cumulative Voting**

Our certificate of incorporation and bylaws do not provide for cumulative voting.

**Stockholder Meetings**

Our certificate of incorporation and our bylaws provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our bylaws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by our chairman of the board, our chief executive officer or our board of directors. In addition, our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors, or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities.

**Undesignated Preferred Stock**

The authorization in our certificate of incorporation of undesignated preferred stock makes it possible for our board of directors, without obtaining further stockholder approval, to issue preferred stock with voting rights or other rights or preferences that could impede the success of any attempt to take control of us.

## PLAN OF DISTRIBUTION

We may sell the securities that we may offer by this prospectus:

- directly to one or more purchasers;
- through agents;
- to and through one or more underwriters;
- to and through one or more dealers;
- or through a combination of any such method of sale.

The distribution of securities pursuant to any applicable prospectus supplement may be effected from time to time in one or more transactions either:

- at a fixed price or prices which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices;
- or at negotiated prices.

Each time we sell the securities described in this prospectus, the particular terms of the offering of the securities, including the following: the names of any underwriters, the purchase price and the proceeds we will receive from the sale, any underwriting discounts and other items constituting underwriters' compensation, any initial offering price, any discounts or concessions allowed or reallocated or paid to dealers, the method of distribution of the securities, any securities exchanges on which the securities of the series may be listed, and any other information we think is important.

We, or agents designated by us, may directly solicit, from time to time, offers to purchase the securities. Any such agent may be deemed to be an underwriter as that term is defined in the Securities Act of 1933, as amended. We will name the agents involved in the offer or sale of the securities and describe any commissions payable by us to these agents in the applicable prospectus supplement. Unless otherwise indicated in the prospectus supplement, these agents will be acting on a best efforts basis for the period of their appointment.

One or more firms, referred to as "remarketing firms," may also offer or sell the securities, if the prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as agents for us. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. The prospectus supplement will identify any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act of 1933, as amended, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If an underwriter is, or underwriters are, utilized in the sale of securities, we will execute an underwriting agreement with such underwriters at the time of such sale to them. The securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, either at a fixed offering price, or at varying prices determined at the time of sale. The securities may be either offered to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate.

If a dealer is utilized in the sale of securities, we will sell the securities to the dealer, as principal. The dealer, who may be deemed to be an "underwriter" may then resell the securities to the public at varying prices to be determined by such dealer at the time of resale. Any initial offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

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Underwriters, dealers and agents may be entitled, under agreements that may be entered into with us, to indemnification by us against civil liabilities arising out of this prospectus, including liabilities under the Securities Act, or to contribution for payments which the agents or underwriters may be required to make relating to those liabilities. Any agents and underwriters may be customers of, engage in transactions with, or perform services for, us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters, dealers or other persons to solicit offers by certain institutions to purchase the securities from us pursuant to contracts providing for payment and delivery on a future date or dates set forth in the applicable prospectus supplement. Institutions with which such contracts may be made may include, but are not limited to, commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and others. The obligations of any purchaser under any such contract will not be subject to any conditions except that the purchase of any securities shall not at the time of delivery be prohibited under the laws of the jurisdiction to which such purchaser is subject, and if any of the securities being offered are also sold to underwriters, we shall have sold to such underwriters the securities not for delayed delivery. The underwriters, dealers and such other persons will not have any responsibility with respect to the validity or performance of such contracts. The prospectus supplement relating to such contracts will set forth the price to be paid for the securities pursuant to such contracts, the commissions payable for solicitation of such contracts and the date or dates in the future for delivery of offered shares pursuant to such contracts.

To facilitate an offering of the securities, certain persons participating in the offering may engage in transactions that stabilize, maintain, or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than we have sold to them. In such circumstances, such persons would cover the over-allotments or short positions by purchasing in the open market or by exercising the over-allotment option granted to such persons. In addition, such persons may stabilize or maintain the price of our securities by bidding for or purchasing any of our securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in any such offering may be reclaimed if shares that they sold are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the shares at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time.

Any series of securities may be a new issue of securities with no established trading market. Any underwriter may make a market in the securities, but will not be obligated to do so, and may discontinue any market making at any time without notice. We cannot and will not give any assurances as to the liquidity of the trading market for any of our securities.

### **WHERE YOU CAN FIND MORE INFORMATION**

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. You may also obtain our SEC filings from the SEC's website at <http://www.sec.gov>.

The SEC allows us to "incorporate by reference" the information we file with the SEC, which means that we can disclose important information to you by referring you to those documents. Statements made in this prospectus as to the contents of any contract, agreement or other documents are not necessarily complete, and, in each instance, we refer you to a copy of such document filed as an exhibit to the registration statement, of which this prospectus is a part, or otherwise filed with the SEC. The information incorporated by reference is considered to be part of this prospectus. When we file information with the SEC in the future, that information will automatically update and supersede this information. We incorporate by reference the documents listed

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below and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, until we sell or de-register all of the securities covered by this prospectus:

- our annual report on Form 10-K for the year ended December 31, 2005, filed February 16, 2006;
- our quarterly report on Form 10-Q and Form 10-Q/A for the period ended June 30, 2006, filed August 9, 2006 and August 11, 2006, respectively;
- our quarterly report on Form 10-Q for the period ended March 31, 2006, filed May 10, 2006;
- our Definitive Proxy Statements on Schedule 14A filed September 8, 2006 and April 13, 2006;
- our current reports on Form-8K filed October 17, 2006; September 29, 2006; August 9, 2006; June 16, 2006; June 15, 2006; June 12, 2006; June 9, 2006; May 15, 2006; May 10, 2006; February 16, 2006; and January 13, 2006; and
- all of our filings pursuant to the Exchange Act of 1934, as amended, after the date of filing the initial registration statement and prior to effectiveness of the registration statement.

You may request a copy of these filings, at no cost, by writing or telephoning us at:

MediciNova, Inc.  
4350 La Jolla Village Drive, Suite 950  
San Diego, California 92122  
(858) 373-1500

This prospectus is part of our “shelf” registration statement. We filed the registration statement with the SEC under the Securities Act of 1933, as amended, to register the securities that may be offered by this prospectus, including any applicable prospectus supplement. Not all of the information in the registration statement appears in this prospectus, or will appear in any prospectus supplement. You should refer to the registration statement and to the exhibits filed with the registration statement for further information about us and the securities offered by this prospectus.

### **LEGAL MATTERS**

Selected legal matters with respect to the validity of the shares of common stock offered in this prospectus will be passed upon for MediciNova, Inc. by Pillsbury Winthrop Shaw Pittman LLP, San Diego, California. A member of Pillsbury Winthrop Shaw Pittman 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**

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K at December 31, 2005 and 2004, and for each of the three years in the period ended December 31, 2005 and the period from September 26, 2000 (inception) through December 31, 2005, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP’s report, given on their authority as experts in accounting and auditing.

**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 14. Other Expenses and Issuance of Distribution**

Set forth below is an estimate (except in the case of the SEC registration fee) of the amount of fees and expenses to be incurred in connection with the issuance and distribution of the securities registered hereby, other than underwriting discounts and commission, if any, incurred in connection with the sale of the securities:

SEC Registration Fee	\$ 10,700
Printing Expenses	100,000
Legal Fees and Expenses	200,000
Accounting Fees and Expenses	100,000
Miscellaneous	5,000
Total	<u>\$ 415,700</u>

**Item 15. 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 (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.

**Item 16. Exhibits**

The following is a list of all exhibits filed as a part of this Registration Statement on Form S-3, including those incorporated into this Registration Statement by reference.

<u>Exhibit Number</u>	<u>Description</u>
3.1(1)	Restated Certificate of Incorporation of the Registrant.
3.2(1)	Amended and Restated Bylaws of the Registrant.
4.1(1)	Specimen of Common Stock Certificate.
4.2(1)	Amended and Restated Registration Rights Agreement by and among the Registrant, its founders and the investors named therein, dated September 2, 2004.

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<u>Exhibit Number</u>	<u>Description</u>
4.3(1)	Amended and Restated Stock Purchase Warrant held by Takashi Kiyozumi, dated September 2, 2004.
4.4(1)	Amended and Restated Stock Purchase Warrant held by Yuichi Iwaki, dated September 2, 2004.
4.5	Form of Indenture.
5.1	Opinion of Pillsbury Winthrop Shaw Pittman LLP.
10.1(2)	2000 General Stock Incentive Plan of the Registrant.
10.2(2)	2004 Stock Incentive Plan of the Registrant.
10.3(5)	Form of Indemnification Agreement between the Registrant and its officers and directors.
10.4(2)†	License Agreement between the Registrant and Kyorin Pharmaceutical Co., Ltd., dated March 14, 2002.
10.5(2)†	License Agreement between the Registrant and Angiogene Pharmaceuticals, Ltd., dated June 19, 2002.
10.6(2)†	License Agreement by and among the Registrant, Riken and Dr. Katsuhiko Mikoshiba, dated June 1, 2003.
10.7(2)†	Exclusive License Agreement between the Registrant and Kissei Pharmaceutical Co., Ltd., dated February 25, 2004.
10.8(2)†	License Agreement between the Registrant and Mitsubishi Pharma Corporation, dated April 27, 2004.
10.9(2)†	Master Services Agreement between the Registrant and Argenes Inc., dated June 25, 2004.
10.11(1)	Employment Agreement between the Registrant and Richard E. Gammans, Ph.D., dated June 14, 2004.
10.12(1)	Employment Agreement between the Registrant and Kenneth W. Locke, Ph.D., dated September 26, 2000, as amended.
10.13(1)	Employment Agreement between the Registrant and Joji Suzuki, M.D., Ph.D., effective May 10, 2004, as amended.
10.14(1)	Research Services Agreement between the Registrant and Tanabe Research Laboratories U.S.A., Inc., dated June 1, 2001.
10.15(2)	License Agreement between the Registrant and Kyorin Pharmaceutical Co., Ltd., dated October 22, 2004.
10.16(2)	Office Lease Agreement between the Registrant and CA-LA Jolla II Limited Partnership, dated January 28, 2004 and the First Amendment thereto, dated August 10, 2004.
10.17(2)	Consulting Agreement between the Registrant and Dr. Yuichi Iwaki, dated as of November 22, 2004.
10.18(3)	License Agreement between the Registrant and Mitsubishi Pharma Corporation, dated December 8, 2004.
10.19(4)	Second Amendment to Office Lease Agreement between the Registrant and CA-La Jolla II Limited Partnership, dated March 21, 2005.
10.20(5)	Executive Employment Agreement between the Registrant and Shintaro Asako, CPA, dated July 18, 2005.



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<u>Exhibit Number</u>	<u>Description</u>
12.1	Computation of the Ratio of Earnings to Fixed Charges.
12.2	Computation of the Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2	Consent of Pillsbury Winthrop Shaw Pittman LLP (included in Exhibit 5.1).
24.1	Powers of Attorney (included in Signature page).

- (1) Filed with the Registrant's Registration Statement on Form S-1 filed October 1, 2004 and incorporated herein by reference.
  - (2) Filed with the Registrant's Amendment to Registration Statement on Form S-1/A filed November 24, 2004 and incorporated herein by reference.
  - (3) Filed with the Registrant's Amendment to Registration Statement on Form S-1/A filed January 6, 2005 and incorporated herein by reference.
  - (4) Filed with the Registrant's Quarterly Report on Form 10-Q filed May 12, 2005 and incorporated herein by reference.
  - (5) Filed with the Registrant's Registration Statement on Form S-1 filed September 1, 2005 and incorporated herein by reference.
- † Portions of this Exhibit have been omitted pursuant to a grant of confidential treatment by the SEC. Omitted information has been filed separately with the Securities and Exchange Commission.

### **Item 17. Undertakings**

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933, as amended;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; *provided, however*, that paragraphs (1)(i) and (1)(ii) do not apply if the registration statement is on Form S-3, Form S-8 or Form F-3, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Sections 13 or 15(d) of the Exchange Act of 1934, as amended, that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, as amended, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities

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offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, as amended, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act of 1934, as amended (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act of 1934, as amended) that is incorporated by reference in the registration statement 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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant 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, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, as amended, 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 the registrant 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 of 1933, as amended, 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.

The undersigned hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act (the "Act") in accordance with the rules and regulations prescribed by the Securities and Exchange Commission under Section 305(b)(2) of the Act.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, we certify that we have reasonable grounds to believe that we meet all of the requirements for filing on Form S-3 and 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 October 26, 2006.

MEDICINOVA, INC.

By: /s/ YUICHI IWAKI  
Yuichi Iwaki, M.D., Ph.D.  
Chief Executive Officer and  
Acting Chief Financial Officer

KNOW ALL MEN BY THESE PRESENTS, that each person who signature appears below constitutes and appoints Yuichi Iwaki, M.D., Ph.D., his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place, and stead, in any and all capacities to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the 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 in and about the premises, 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.

In accordance with the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dated stated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ YUICHI IWAKI</u> Yuichi Iwaki, M.D., Ph.D.	Director, Executive Chairman of the Board, President and Chief Executive Officer and Acting Chief Financial Officer (Principal Executive Officer and Principal Financial Officer)	October 26, 2006
<u>/s/ SHINTARO ASAKO</u> Shintaro Asako	Vice President, Accounting and Administration (Principal Accounting Officer)	October 26, 2006
<u>/s/ ALAN W. DUNTON</u> Alan W. Dunton, M.D.	Director	October 26, 2006
<u>/s/ JEFF HIMAWAN</u> Jeff Himawan, Ph.D.	Director	October 26, 2006
<u>/s/ ARLENE M. MORRIS</u> Arlene M. Morris	Director	October 26, 2006
<u>/s/ HIDEKI NAGAO</u> Hideki Nagao	Director	October 26, 2006
<u>/s/ JOHN K.A. PRENDERGAST</u> John K.A. Prendergast, Ph.D.	Director	October 26, 2006
<u>/s/ DANIEL VAPNEK</u> Daniel Vapnek, Ph.D.	Director	October 26, 2006

**EXHIBIT INDEX**

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- † Portions of this Exhibit have been omitted pursuant to a grant of confidential treatment by the SEC. Omitted information has been filed separately with the Securities and Exchange Commission.

---

MediciNova, Inc.

TO

[     ]

*Trustee*

---

**Indenture**  
*Dated as of 1, 2006*

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INDENTURE, dated as of \_\_\_\_\_, 2006, between MediciNova, Inc., a corporation duly organized and existing under the laws of Delaware (herein called the "Company"), having its principal office at 4350 La Jolla Village Drive, San Diego, California 992122, and [TRUSTEE] (herein called the "Trustee").

RECITALS OF THE COMPANY

The Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its unsecured debentures, notes or other evidences of indebtedness (each herein called a "Security" or collectively the "Securities"), in an unlimited aggregate principal amount to be issued in one or more series as in this Indenture provided.

All things necessary to make this Indenture a valid agreement of the Company, in accordance with its terms, have been done.

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Securities by the Holders thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities or of any series thereof, as follows:

ARTICLE ONE

DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

Section 101. Definitions. For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires;

(1) the terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular;

(2) all other terms used herein that are defined in the Trust Indenture Act, either directly or by reference therein, have the meanings assigned to them therein;

(3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles, and, except as otherwise herein expressly provided, the term "generally accepted accounting principles" with respect to any computation required or permitted hereunder shall mean such accounting principles as are generally accepted in the United States at the date of such computation or, at the election of the Company from time to time, at the date of the execution and delivery of this Indenture.

(4) the word "or" is not exclusive; and

(5) the words "herein", "hereof" and "hereunder" and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

Certain terms, used principally in Article Six, are defined in that Article.

“Act”, when used with respect to any Holder, has the meaning specified in Section 104.

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control” when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“Authenticating Agent” means any Person authorized by the Trustee to act on behalf of the Trustee to authenticate Securities.

“Authorized Newspaper” means a newspaper of general circulation, in an official language of the country of publication or in the English language, customarily published on a daily basis (including newspapers published on a daily basis except not published on days other than Business Days) in such country. Whenever successive weekly publications in an Authorized Newspaper are required hereunder, they may be made (unless otherwise expressly provided herein) on the same or different days of the week and in the same or different Authorized Newspapers.

“Authorized Officer” means any person (whether designated by name or the persons for the time being holding a designated office) appointed by or pursuant to a Board Resolution for the purpose, or a particular purpose, of this Indenture, *provided* that written notice of such appointment shall have been given to the Trustee.

“Board of Directors” means either the board of directors of the Company or any duly authorized committee of that board.

“Board Resolution” when used with reference to the Company means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification, and delivered to the Trustee.

“Business Day”, when used with respect to any Place of Payment or any other particular location specified in the Securities or this Indenture, means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in that Place of Payment, such other location or the city in which the Corporate Trust Office of the Trustee is located, are authorized or obligated by law to close, except as may be otherwise specified as contemplated by **Section 301(b)**.

“Capital Lease Obligation” means, at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at such time be required to be capitalized on a balance sheet in accordance with GAAP.

“Capital Stock” means (i) in the case of a corporation, corporate stock; (ii) in the case of an association or business entity, any and all shares, interests, participations, rights or other

equivalents (however designated) of corporate stock; (iii) in the case of a partnership or limited liability company, partnership or membership interests (whether general or limited); and (iv) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person.

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

“Commission” means the United States Securities and Exchange Commission, as from time to time constituted, created under the United States Securities Exchange Act of 1934, or, if at any time after the execution of this indenture such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties at such time.

“Company” means the Person named as the “Company” in the first paragraph of this instrument until a successor Person has become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor Person.

“Company Request” or “Company Order” means a written request or order signed in the name of the Company by an Authorized Officer and delivered to the Trustee.

“Corporate Trust Office” means the principal office of the Trustee at which at any particular time its corporate trust business shall be administered and which at the date hereof is located at 1.

“corporation” includes corporations, associations, joint stock companies, limited liability companies and business trusts.

“Defaulted Interest” has the meaning specified in **Section 307**.

“Depository” means, with respect to any series of Securities issuable or issued in whole or in part in the form of one or more Global Securities, The Depository Trust Company, New York, New York, or such other entity specified as contemplated by **Section 301(b)**. The Depository is the entity that holds a Global Security, if any, and operates the computerized book-entry system through which ownership interests in the Securities are recorded. Such entity shall at all times be a clearing agency registered under the United States Securities Exchange Act of 1934, as amended, and in good standing thereunder or, in the case of an entity that holds a Global Security issued outside of the United States, such entity shall at all times be in compliance with any applicable registration requirements and in good standing under application regulations.

“Dollar” or “\$” means a dollar or other equivalent unit in such coin or currency of the United States as at the time shall be legal tender for the payment of public and private debts.

“Eligible Obligations” means:

(a) with respect to Securities denominated in Dollars, U.S. Government Obligations; or

(b) with respect to Securities denominated in a currency other than Dollars or in a composite currency, such other obligations or instruments as shall be specified with respect to such Securities, as contemplated by **Section 301(b)(22)**.

“Equity Interests” means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

“Event of Default” has the meaning specified in **Section 501**.

“Global Security” means a Security, if any, issued to evidence all or a part of a series of Securities in accordance with **Section 301**.

“Hedging Obligations” means, with respect to any Person, the obligations of such Person under (i) interest rate swap agreements, interest rate cap agreements and interest rate collar agreements and (ii) other agreements or arrangements designed to protect such Person against fluctuations in interest rates.

“Holder” means the bearer of an Unregistered Security or coupon appertaining thereto or a Person in whose name a Registered Security is registered in the Security Register.

“Indebtedness” means, with respect to any specified Person, any indebtedness of such Person, whether or not contingent and without duplication (i) in respect of borrowed money; (ii) evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof); (iii) in respect of banker’s acceptances; (iv) representing Capital Lease Obligations; (v) representing the balance deferred and unpaid of the purchase price of any property, except any such balance that constitutes an accrued expense or trade payable; or (vi) representing any Hedging Obligations, if and to the extent any of the preceding items (other than letters of credit and Hedging Obligations) would appear as a liability upon a balance sheet of the specified Person prepared in accordance with GAAP. In addition, the term “Indebtedness” includes all Indebtedness of others secured by a Lien on any asset of the specified Person (whether or not such Indebtedness is assumed by the specified Person) and, to the extent not otherwise included, the guaranty by the specified Person of any indebtedness of any other Person.

“Indenture” means this instrument as originally executed and as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and shall include the terms of particular series of Securities established as contemplated by **Section 301**.

“Indexed Security” means a Security the terms of which provide that the principal amount thereof payable at Stated Maturity may be more or less than the principal face amount thereof at original issuance.

“interest”, when used with respect to an Original Issue Discount Security that by its terms bears interest only after Maturity, means interest payable after Maturity.

“Interest Payment Date”, when used with respect to any Security, means the Stated Maturity of an installment of interest on such Security.

“Maturity”, when used with respect to any Security, means the date on which the principal of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, upon call for redemption, exercise of repayment option or otherwise.

“Obligations” means any principal, interest, penalties, fees, indemnifications, reimbursements, damages, costs and expenses and other liabilities payable under the documentation governing any Indebtedness.

“Officer’s Certificate” means a certificate signed by an Authorized Officer and delivered to the Trustee.

“Opinion of Counsel” means a written opinion of counsel, who may be an employee of, or counsel for, the Company or an Affiliate of the Company, and who shall be reasonably acceptable to the Trustee.

“Original Issue Discount Security” means any Security that provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to **Section 502**.

“Outstanding”, when used with respect to Securities of any series, means, as of the date of determination, all Securities theretofore authenticated and delivered under this Indenture, *except*:

- (a) Securities theretofore cancelled by the Trustee or delivered to the Trustee for cancellation;
- (b) Securities or portions thereof for whose payment or redemption money or Eligible Obligations (or any combination of money and Eligible Obligations) in the necessary amount has been theretofore deposited with the Trustee or any Paying Agent (other than the Company or any other obligor on such Security) in trust or set aside and segregated in trust by the Company or any other obligor on such Security (if the Company or any other obligor on such Security acts as its own Paying Agent) for the Holders of such Securities;
- (c) Securities as to which the Company has effected legal defeasance or covenant defeasance as provided in **Article Four**;
- (d) Securities that have been paid pursuant to **Section 306** or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, other than any such Securities in respect of which there have been presented to the Trustee proof satisfactory to it and the Company that such Securities are held by a bona fide purchaser in whose hands such Securities are valid obligations of the Company;



*provided, however,* that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given, made or taken any request, demand, authorization, direction, notice, consent, waiver or other action hereunder,

(i) Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor (unless the Company, such Affiliate or such obligor owns (x) all Securities Outstanding under this Indenture or (y) except for the purposes of actions to be taken by Holders of more than one series or Tranche voting as a class, all Outstanding Securities of each such series and each such Tranche, as the case may be, determined without regard to this clause) shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in relying upon any such request, demand, authorization, direction, notice, consent or waiver, only Securities that the Trustee knows to be so owned shall be so disregarded. Securities so owned that have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor;

(ii) in determining whether the Holders of the requisite principal amount of Securities of any series or Tranche have concurred in any direction, waiver or consent, the principal amount of Original Issue Discount Securities that shall be deemed to be outstanding shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon acceleration of the maturity thereof pursuant to **Section 502**;

(iii) in the case of any Security the principal of that is payable from time to time without presentment or surrender, the principal amount of such Security that shall be deemed to be Outstanding at any time for all purposes of this Indenture shall be the original principal amount thereof less the aggregate amount of principal thereof theretofore paid; and

(iv) in the case of Securities having been denominated in a currency other than Dollars and remaining outstanding contemporaneously with Securities denominated in Dollars, the principal amount of any Security that is denominated in a currency other than Dollars or in a composite currency that shall be deemed to be Outstanding for such purposes shall be the amount of Dollars that could have been purchased by the principal amount (or, in the case of an Original Issue Discount Security, the Dollar equivalent on the date determined as set forth below of the amount determined as provided in (ii) of this proviso) of such currency or composite currency evidenced by such Security, in each such case certified to the Trustee in an Officer's Certificate based (A) on the average of the mean of the buying and selling spot rates quoted by three banks that are members of the New York Clearing House Association selected by the Company in effect at 11:00 A.M. (New York time) in The City of New York on the fifteenth Business Day preceding any such determination or (B) if on such fifteenth Business Day it is not possible or practicable to obtain such quotations from such three banks, on such other quotations or alternative methods of determination that shall be as consistent as practicable with the method set forth in the immediately preceding subclause (A) above.

“Paying Agent” means any Person, including the Company, authorized by the Company to pay the principal of (and premium, if any) or interest on any Securities on behalf of the Company.

“Payment Blockage Notice” has the meaning specified in **Section 1403**.

“Periodic Offering” means an offering of Securities of a series from time to time any or all of the specific terms of which Securities, including without limitation the rate or rates of interest, if any, thereon, the Stated Maturity or Maturities thereof and the redemption provisions, if any, with respect thereto, are to be determined by the Company or its agents from time to time subsequent to the initial request for the authentication and delivery of such Securities by the Trustee, all as contemplated in **Sections 301 and 303**.

“Permitted Junior Securities” means: (i) Equity Interests in the Company; or (ii) debt securities that are subordinated to all Senior Debt and any debt securities issued in exchange for Senior Debt to the same extent as, or to a greater extent than, the Subordinated Securities are subordinated to Senior Debt under this Indenture.

“Person” means any individual, corporation, partnership, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

“Place of Payment”, when used with respect to the Securities of any series, or any Tranche thereof, means the place or places where the principal of (and premium, if any) and interest, if any, on the Securities of that series or Tranche are payable as specified as contemplated by **Section 301(b)**.

“Predecessor Security” of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security, and, for the purposes of this definition, any Security authenticated and delivered under **Section 306** in exchange for or in lieu of a mutilated, destroyed, lost or stolen Security shall be deemed to evidence the same debt as the mutilated, destroyed, lost or stolen Security.

“Redemption Date”, when used with respect to any Security to be redeemed, means the date fixed for such redemption by or pursuant to **Section 301(b)** of this Indenture.

“Redemption Price”, when used with respect to any Security to be redeemed, means the price at which it is to be redeemed pursuant to this Indenture, exclusive of accrued and unpaid interest, if any.

“Registered Security” means any Security issued hereunder and registered by the Security Registrar or any recorded interest in a Global Security issued hereunder.

“Regular Record Date” for the interest payable on any Interest Payment Date on the Securities of any series means the date specified for that purpose as contemplated by **Section 301(b)**.

“Repayment Date”, when used with respect to any Security of any series to be repaid or repurchased, means the date, if any, fixed for such repayment or for such repurchase (whether at the option of the Holders or otherwise) pursuant to **Section 301(b)** of this Indenture.

“Repayment Price”, when used with respect to any Security of any series to be repaid, means the price, if any, at which it is to be repaid pursuant to **Section 301(b)**.

“Representative” means the indenture trustee or other trustee, agent or representative for any Senior Debt.

“Responsible Officer”, when used with respect to the Trustee, means any officer within the corporate trust department or any other successor group of the Trustee, including any vice president, assistant vice president, assistant secretary or any other officer of the Trustee customarily performing functions similar to those performed by any of the above designated officers and also means, with respect to a particular corporate trust matter, any other officer of the Trustee to whom such matter is referred because of his knowledge of and familiarity with the particular subject.

“Security” or “Securities” has the meaning stated in the first recital of this Indenture and more particularly means any Security or Securities authenticated and delivered under this Indenture.

“Security Register” and “Security Registrar” have the respective meanings specified in **Section 305**.

“Senior Debt” means: (i) all Indebtedness of the Company outstanding under any senior credit agreement with lending institutions and all Hedging Obligations with respect thereto; (ii) any other Indebtedness of the Company permitted to be incurred under the terms of this Indenture, unless the instrument under which such Indebtedness is incurred expressly provides that it is on a parity with or subordinated in right of payment to the Subordinated Securities; and (iii) all Obligations with respect to the items listed in the preceding clauses (i) and (ii). Notwithstanding anything to the contrary in the preceding, Senior Debt shall not include: (i) any liability for federal, state, local or other taxes owed or owing by the Company; (ii) any intercompany Indebtedness of the Company or any of its Subsidiaries to the Company or any of its Affiliates; (iii) any trade payables; or (iv) the portion of any Indebtedness that is incurred in violation of this Indenture.

“Senior Securities” means Securities other than Subordinated Securities.

“series” or “series of Securities” means a series of Securities issued under this Indenture as determined by Board Resolution or as otherwise determined under this Indenture.

“Special Record Date” for the payment of any Defaulted Interest means a date fixed by the Trustee pursuant to **Section 307**.

“Stated Maturity”, when used with respect to any Security or any installment of principal thereof or interest thereon, means the date specified in such Security as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

“Subordinated Securities” means Securities that by the terms established pursuant to **Section 301(b)(10)** are subordinate to any specified debt of the Company.

“Subsidiary” of any Person means (a) any corporation, association or other business entity of which more than 50% of the outstanding total voting power ordinarily entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by the Company or by one or more other Subsidiaries, or by the Company and one or more other Subsidiaries or (b) any partnership the sole general partner or the managing general partner of which is the Company or a Subsidiary of the Company or the only general partners of which are the Company or of one or more Subsidiaries of the Company (or any combination thereof).

“Tranche” means a group of Securities which (a) are of the same series and (b) have identical terms to other Tranches of such series except as to principal amount, date of issuance or first interest payment date, each of which may vary among Tranches of any one series.

“Trustee” means the Person named as the “Trustee” in the first paragraph of this instrument until a successor Trustee shall have been appointed with respect to one or more series of Securities pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each Person who is then a Trustee hereunder, and if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any series shall mean the Trustee with respect to Securities of that series.

“Trust Indenture Act” means the United States Trust Indenture Act of 1939 as in force at the date as of which this instrument was executed, except as provided in **Section 905**.

“U.S. Government Obligations” means (x) any security that is (i) a direct obligation of the United States of America for the payment of which the full faith and credit of the United States of America are pledged or (ii) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America, and (y) any depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act) as custodian with respect to any U.S. Government Obligation which is specified in Clause (x) above and held by such bank for the account of the holder of such depositary receipt, or with respect to any specific payment of principal of or interest on any U.S. Government Obligation which is so specified and held.

“Unregistered Security” means any Security issued hereunder that is not a Registered Security.

“Vice President”, when used with respect to the Company or the Trustee, means any vice president, whether or not designated by a number or a word or words added before or after the title “vice president”.

“Yield to Maturity” means the yield to maturity, calculated by the Company at the time of issuance of a series of Securities or, if applicable, at the most recent determination of interest on such series in accordance with accepted financial practice.

Section 102. Compliance Certificates and Opinions. (a) Except as otherwise expressly provided in this Indenture upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall, if requested by the Trustee, furnish to the Trustee an Officer's Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent, if any, have been complied with, except that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished.

(b) Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (except for certificates provided for in **Section 1004**) shall include:

- (1) a statement that each individual signing such certificate or opinion has read such covenant or condition and the definitions herein relating thereto;
- (2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;
- (3) a statement that, in the opinion of each such individual, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and
- (4) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

Section 103. Form of Documents Delivered to Trustee. (a) In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

(b) Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon a certificate or an Opinion of Counsel, or representations by counsel. Any such Opinion of Counsel may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information with respect to such factual matters is in the possession of the Company.

(c) Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

Section 104. Acts of Holders. (a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided or permitted by this Indenture to be made, given or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by an agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the “Act” of the Holders signing such instrument or instruments. Proof of execution of any such instrument or of a writing appointing any such agent, or of the holding by any Person of Unregistered Securities, shall be sufficient for any purpose of this Indenture and (subject to **Section 601**) conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him the execution thereof. Where such execution is by a signer acting in a capacity other than his individual capacity, such certificate or affidavit shall also constitute sufficient proof of his authority. The fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other manner acceptable to the Trustee.

(c) The amount of Unregistered Securities held by any Person executing any such instrument or writings as the Holder thereof, and the numbers of such Unregistered Securities, and the date of his holding the same, may be proved by the production of such Unregistered Securities or by a certificate executed, as depository, by any trust company, bank, banker or member of a national securities exchange (wherever situated), if such certificate is in form satisfactory to the Trustee, showing that at the date therein mentioned such Person had on deposit with such depository, or exhibited to it, the Unregistered Securities therein described; or such facts may be proved by the certificate or affidavit of the Person executing such instrument or writing as the Holder thereof, if such certificate or affidavit is in form satisfactory to the Trustee. The Trustee and the Company may assume that such ownership of any Unregistered Securities continues until (1) another certificate bearing a later date issued in respect of the same Unregistered Securities is produced or (2) such Unregistered Securities are produced by some other Person or (3) such Unregistered Securities are registered as to principal or are surrendered in exchange for Registered Securities, or (4) such Unregistered Securities are no longer Outstanding.

(d) The fact and date of execution of any such instrument or writing and the amount and number of Unregistered Securities held by the Person so executing such instrument or writing may also be proved in any other manner that the Trustee deems sufficient; and the Trustee may in any instance require further proof with respect to any of the matters referred to in this Section.

(e) The principal amount (except as otherwise contemplated in clause (ii) of the proviso to the definition of “Outstanding”) and serial numbers of Securities held by any Person, and the date of holding the same, shall be proved by the Security Register.

(f) Any request, demand, authorization, direction, notice, consent, election, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee or the Company in reliance thereon, whether or not notation of such action is made upon such Security.

(g) The Company may set a record date for purposes of determining the identity of Holders of any Outstanding Securities of any series entitled to vote or consent to any action by vote or consent authorized or permitted by **Section 512** or **513**. Such record date shall be the later of 30 days prior to the first solicitation of such consent or the date of the most recent list of Holders of such Securities furnished to the Trustee pursuant to **Section 701** prior to such solicitation.

(h) If the Company solicits from Holders any request, demand, authorization, direction, notice, consent, election, waiver or other Act, the Company may, at its option, fix in advance a record date for the determination of Holders entitled to give such request, demand, authorization, direction, notice, consent, election, waiver or other Act, but the Company shall have no obligation to do so. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, election, waiver or other Act may be given before or after such record date, but only the Holders of record at the close of business on the record date shall be deemed to be Holders for the purposes of determining whether Holders of the requisite proportion of the Outstanding Securities have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, election, waiver or other Act, and for that purpose the Outstanding Securities shall be computed as of the record date.

Section 105. Notices, Etc. to Trustee and Company. Except as otherwise provided herein, any request, demand, authorization, direction, notice, consent, election, waiver or Act of Holders or other document provided or permitted by this Indenture to be made upon, given or furnished to, or filed with,

(a) the Trustee by any Holder or by the Company shall be sufficient for every purpose hereunder if made, given, furnished or filed in writing to or with the Trustee at its Corporate Trust Office, Attention: I, or

(b) the Company by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to the Company addressed to it at the address of its principal office specified in the first paragraph of this instrument or at any other address furnished in writing to the Trustee by the Company prior to such mailing.

Section 106. Notice to Holders; Waiver. (a) Except as otherwise expressly provided herein, where this Indenture provides for notice of any event or reports to Holders, such notice or report shall be sufficiently given if in writing and mailed, first-class postage prepaid, to each Holder of Registered Securities affected by such event, at the address of such Holder as it appears in the Security Register and to

addresses filed with the Trustee or preserved on the Trustee's list pursuant to **Section 702(a)** for other Holders (and to such other addressees as may be required in the case of such notice or report under Section 313(c) of the Trust Indenture Act), not later than the latest date, and not earlier than the earliest date, prescribed for the giving of such notice or report.

(b) In any case where notice to Holders is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders.

(c) Notice shall be sufficiently given to Holders of Unregistered Securities if published in an Authorized Newspaper in each of The City of New York and, if such Securities are listed on any stock exchange outside of the United States, in the city in which such stock exchange is located, or in such other city or cities as may be specified in the Securities, once in each of two different calendar weeks, the first publication to be not earlier than the earliest date, and not later than the last date, if any, prescribed for the giving of such notice.

(d) Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

(e) In case by reason of the suspension of regular mail service or by reason of any other cause it is impracticable to give such notice by mail, then such notification that it is made with the approval of the Trustee shall constitute a sufficient notification for every purpose hereunder.

(f) If it is impractical in the opinion of the Trustee or the Company to make any publication of any notice required hereby in an Authorized Newspaper, any publication or other notice in lieu thereof that is made or given with the approval of the Trustee shall constitute a sufficient publication of such notice.

**Section 107. Conflict With Trust Indenture Act.**

If any provision hereof limits, qualifies or conflicts with a provision of the Trust Indenture Act which is required under the Trust Indenture Act to be a part of and govern this Indenture, the latter provision shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act which may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

**Section 108. Effect of Headings and Table of Contents.** The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

**Section 109. Successors and Assigns.** All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.



Section 110. Separability Clause. In case any provision in this Indenture or in the Securities is invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 111. Benefits of Indenture. Nothing in this Indenture or in the Securities, express or implied, shall give to any Person, other than the parties hereto (including any Paying Agent appointed pursuant to **Section 1002** and Authenticating Agent appointed pursuant to **Section 614** to the extent provided herein) and their successors hereunder and the Holders, any benefit or any legal or equitable right, remedy or claim under this Indenture.

Section 112. Governing Law. This Indenture and the Securities shall be governed by and construed in accordance with the laws of the State of New York in the United States, but without giving effect to the conflicts of laws principles thereof.

Section 113. Legal Holidays. In any case where any Interest Payment Date, Redemption Date, Repayment Date or Stated Maturity of any Security is not a Business Day at any Place of Payment or the city in which the Corporate Trust Office of the Trustee is located, then (notwithstanding any other provision of this Indenture or of the Securities, other than a provision in Securities of any series, or in the Board Resolution, Supplemental Indenture or Officer's Certificate that establishes the terms of such Securities, that specifically states that such provision shall apply in lieu of this Section) payment of interest or principal (and premium, if any) need not be made at such Place of Payment on such date, but may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date or Redemption Date, Repayment Date, or at the Stated Maturity, and such extension of time shall in such case be (1) excluded in the computation of interest, if any, accruing on such Security at a fixed rate and (2) included in the computation of interest, if any, accruing on such Security at a floating rate; *provided, however*, that if such extension would cause payment of interest at a floating rate to be made in the next following calendar month, such payment shall be made on the next preceding Business Day.

Section 114. Rules by Trustee and Agents. The Trustee may make reasonable rules for action by or at a meeting of Holders of one or more series. The Paying Agent or Security Registrar may make reasonable rules and set reasonable requirements for its functions.

Section 115. No Recourse Against Others. No past, present or future director, officer, stockholder or employee, as such, of the Company or any successor corporation shall have any liability for any obligation of the Company under the Securities or the Indenture or for any claim based on, in respect of or by reason of such obligations or their creation. Each Holder by accepting a Security waives and releases all such liability. The waiver and release are part of the consideration for the execution and delivery of this Indenture and the issue of the Securities.

ARTICLE TWO  
SECURITY FORMS

Section 201. Forms Generally. (a) The Securities of each series and related coupons, if any, shall be in substantially the form set forth in this Article or in such other form as shall be established by or pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental hereto, in each case with such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture and may have such letters, numbers or other marks of identification and such legends or endorsements placed thereon as may be required to comply with the rules of any securities exchange or as may, consistently herewith, be determined by the officers executing such Securities, as evidenced by their execution of the Securities. When the form of Securities of any series is established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be delivered to the Trustee at or prior to the delivery of the Company Order contemplated by **Section 303** for the authentication and delivery of such Securities.

(b) If required or appropriate under applicable law, Unregistered Securities and their coupons must have the following statement on their face:

ANY UNITED STATES PERSON (AS DEFINED IN THE U.S. INTERNAL REVENUE CODE) WHO HOLDS THIS OBLIGATION WILL BE SUBJECT TO LIMITATIONS UNDER THE UNITED STATES INCOME TAX LAWS, INCLUDING THE LIMITATIONS PROVIDED IN SECTIONS 165(J) AND 1287(A) OF THE U.S. INTERNAL REVENUE CODE.

If required or appropriate under applicable law, Unregistered Securities and their coupons must have the following statement on their face:

BY ACCEPTING THIS OBLIGATION, THE HOLDER REPRESENTS AND WARRANTS THAT IT IS NOT A UNITED STATES PERSON (OTHER THAN AN EXEMPT RECIPIENT DESCRIBED IN SECTION 6049(B)(4) OF THE INTERNAL REVENUE CODE AND THE REGULATIONS THEREUNDER) AND THAT IT IS NOT ACTING FOR OR ON BEHALF OF A UNITED STATES PERSON (OTHER THAN AN EXEMPT RECIPIENT DESCRIBED IN SECTION 6049(B)(4) OF THE INTERNAL REVENUE CODE AND THE REGULATIONS THEREUNDER).

(c) The definitive Securities shall be produced in such manner or combination of manners, all as determined by the officers executing such Securities, as evidenced by their execution of such Securities.

Section 202. Form of Face of Security.

[Insert any legend required by the Internal Revenue Code and the regulations thereunder.]

MediciNova, Inc.

No. \_\_\_\_\_

\$ \_\_\_\_\_

MediciNova, Inc., a corporation duly organized and existing under the laws of Delaware (herein called the “Company”, which term includes any successor Person under the Indenture hereinafter referred to), for value received, hereby promises to pay to \_\_\_\_\_, or registered assigns, the principal sum of \_\_\_\_\_ Dollars on \_\_\_\_\_ [if the Security is to bear interest prior to Maturity, insert — , and to pay interest thereon from \_\_\_\_\_ or from the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually on \_\_\_\_\_ and \_\_\_\_\_ in each year, commencing \_\_\_\_\_, at the rate of \_\_\_% per annum, to, but excluding, the date that the principal hereof is paid or made available for payment. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest, which shall be the \_\_\_ or \_\_\_ (whether or not a Business Day), as the case may be, next preceding such Interest Payment Date. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Securities of this series not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Securities of this series may be listed, and upon such notice as may be required by such exchange, all as more fully provided in said Indenture].

[If the Security is not to bear interest prior to Maturity, insert — The principal of this Security shall not bear interest except in the case of a default in payment of principal upon acceleration, upon redemption or at Stated Maturity and in such case the overdue principal and any overdue premium shall bear interest at the rate of \_\_\_% per annum (to the extent that the payment of such interest shall be legally enforceable), from the dates such amounts are due to, but excluding, the date that they are paid or made available for payment. Interest on any overdue principal or premium shall be payable on demand.

Payment of the principal of (and premium, if any) and [if applicable, insert — any such] interest on this Security will be made by check at the office or agency of the Company maintained for that purpose in \_\_\_\_\_, in such coin or currency of [the United States of America] as at the time of payment is legal tender for payment of public and private debts [if applicable, insert — ; provided, however, that at the option of the Company payment of interest may be made by check mailed to the address of the Person entitled thereto as such address shall appear in the Security Register], provided that if a Holder of more than \$1.0 million in principal amount of Securities has given wire transfer instructions to the Company at least ten Business Days prior to the applicable Interest Payment Date, the Company shall pay all principal and any premium and interest on that Holder’s Securities in accordance with those instructions [if

*applicable, insert — ; provided, however,* that so long as this Security is registered in the name of The Depository Trust Company or its nominee, all payments of principal, premium, if any, and interest will be made by the Company in immediately available funds].

Reference is hereby made to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed by one of its Authorized Officers.

Dated: \_\_\_\_\_

MediciNova, Inc.

By: \_\_\_\_\_

Section 203. Form of Reverse of Security.

This Security is one of a duly authorized issue of securities of the Company (herein called the "Securities"), issued and to be issued in one or more series under an Indenture, dated as of October 1, 2006 (herein called the "Indenture", which term shall have the meaning assigned to it in such instrument), among the Company and I, as Trustee (herein called the "Trustee", which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a statement of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and the Holders of the Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. This Security is one of the series designated on the face hereof [*if applicable, insert —*, limited in aggregate principal amount to \$\_\_\_\_\_].

[*if applicable, insert —* The Securities of this series are subject to redemption upon not less than 30 days' notice by mail, [*if applicable, insert —* (1) on \_\_\_\_\_ in any year commencing with the year \_\_\_\_ and ending with the year \_\_\_\_ through operation of the sinking fund for this series at a Redemption Price equal to 100% of the principal amount, and (2)] at any time [*if applicable, insert —* on or after \_\_\_\_\_, 20\_\_], as a whole or in part, at the election of the Company, at the following Redemption Prices (expressed as percentages of the principal amount): If redeemed [*if applicable, insert —* on or before \_\_\_\_\_, \_\_%, and if redeemed] during the 12-month period beginning \_\_\_\_\_ of the years indicated,

---

Year

Redemption Price

Year

Redemption Price

---

and thereafter at a Redemption Price equal to \_\_\_% of the principal amount, together in the case of any such redemption [*if applicable, insert — (whether through operation of the sinking fund or otherwise)*] with accrued interest to but excluding the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant Regular Record Dates referred to on the face hereof, all as provided in the Indenture.]

[*If applicable, insert —* The Securities of this series are subject to redemption upon not less than 30 days' notice by mail, (1) on \_\_\_\_\_ in any year commencing with the year \_\_\_\_ and ending with the year \_\_\_\_ through operation of the sinking fund for this series at the Redemption Prices for redemption through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below, and (2) at any time [*if applicable, insert — on or after \_\_\_\_\_*], as a whole or in part, at the election of the Company, at the Redemption Prices for redemption otherwise than through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below: If redeemed during the 12-month period beginning \_\_\_\_\_ of the years indicated,

Year	Redemption Price For Redemption Through Operation of the Sinking Fund	Redemption Price For Redemption Otherwise Than Through Operation of the Sinking Fund
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and thereafter at a Redemption Price equal to .% of the principal amount, together in the case of any such redemption (whether through operation of the sinking fund or otherwise) with accrued interest to but excluding the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant Regular Record Dates referred to on the face hereof, all as provided in the Indenture.]

[*If applicable, insert —* The sinking fund for this series provides for the redemption on \_\_\_\_\_ in each year beginning with the year \_\_\_\_ and ending with the year \_\_\_\_ of [*if applicable, insert —* not less than \$\_\_\_\_\_ (“mandatory sinking fund”) and not more than] \$\_\_\_\_\_ aggregate principal amount of Securities of this series. Securities of this series acquired or redeemed by the Company otherwise than through [*if applicable, insert —* mandatory] sinking fund payments may be credited against subsequent [*if applicable, insert —* mandatory] sinking fund payments otherwise required to be made [*if applicable, insert —* , in the inverse order in which they become due].]

[If the Security is subject to redemption of any kind, insert — In the event of redemption of this Security in part only, a new Security or Securities of this series and of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the cancellation hereof.]

[If applicable, insert — The Indenture contains provisions for defeasance at any time of the entire indebtedness of the series of which this Security is a part or certain restrictive covenants and Events of Default with respect to this Security, in each case upon compliance with certain conditions set forth in the Indenture.]

[If the Security is not an Original Issue Discount Security, insert — If an Event of Default with respect to Securities of this series occurs and is continuing, the principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture.]

[If the Security is an Original Issue Discount Security, insert — If an Event of Default with respect to Securities of this series occurs and is continuing, an amount of principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture. Such amount shall be equal to — insert formula for determining the amount. Upon payment (i) of the amount of principal so declared due and payable and (ii) of interest on any overdue principal, premium and interest (in each case to the extent that the payment of such interest shall be legally enforceable), all of the Company's obligations in respect of the payment of the principal of and premium and interest, if any, on the Securities of this series shall terminate.]

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of the Securities of each series to be affected under the Indenture at any time by the Company and the Trustee with the consent of the Holders of a majority in principal amount of the Securities at the time Outstanding of each series to be affected. The Indenture also contains provisions permitting the Holders of specified percentages in principal amount of the Securities of each series at the time Outstanding, on behalf of the Holders of all Securities of such series, to waive compliance by the Company with certain provisions of the Indenture and certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Security shall be conclusive and binding upon such Holder and upon all future Holders of this Security and of any Security issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Security.

As provided in and subject to the provisions of the Indenture, the Holder of this Security shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default with respect to the Securities of this series, the Holders of not less than 25% in principal amount of the Securities of this series at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of a majority in

principal amount of Securities of this series at the time Outstanding a direction inconsistent with such request, and the Trustee shall have failed to institute any such proceeding, for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Security for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Security or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Security at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Security is registrable in the Security Register, upon surrender of this Security for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Security are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by, the Holder hereof or his attorney duly authorized in writing, and thereupon one or more new Securities of this series and of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Securities of this series are issuable [only in registered form without coupons] in denominations of \$\_\_\_\_\_ and any integral multiple thereof. As provided in the Indenture and subject to certain limitations therein set forth, Securities of this series are exchangeable for a like aggregate principal amount of Securities of this series and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Security is registered as the owner hereof for all purposes, whether or not this Security be overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Security shall be governed by and construed in accordance with the law of the State of New York in the United States, but without regard to the principles of conflicts of laws thereof.

All terms used in this Security which are defined in the Indenture shall have the meanings assigned to them in the Indenture.

Section 204. Form of Legend for Global Securities.

Unless otherwise specified as contemplated by **Section 301(b)** for the Securities evidenced thereby, every Global Security authenticated and delivered hereunder shall bear a legend in substantially the following form:

THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. THIS SECURITY MAY NOT BE EXCHANGED IN WHOLE OR IN PART FOR A SECURITY REGISTERED, AND NO TRANSFER OF THIS SECURITY IN WHOLE OR IN PART MAY BE REGISTERED, IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR A NOMINEE THEREOF, EXCEPT IN THE LIMITED CIRCUMSTANCES DESCRIBED HEREIN AND IN THE INDENTURE.

Section 205. Form of Trustee's Certificate of Authentication. The Trustee's certificate of authentication shall be in substantially the following form:

This is one of the Securities of the series designated herein, referred to in the within-mentioned Indenture.

[            ]  
as Trustee

By \_\_\_\_\_  
Authorized Officer

ARTICLE THREE  
THE SECURITIES

Section 301. Amount Unlimited; Issuable in Series. (a) The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited.

(b) The Securities may be issued in one or more series. There may be Registered Securities and Unregistered Securities within a series. Registered and Unregistered Securities may be in temporary or permanent global form. Unregistered Securities may be issued with or without coupons attached. Unregistered Securities may be subject to such restrictions, and contain such legends, as may be required by United States laws and regulations. Subject to the last paragraph of this Section, there shall be established in or pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental hereto, prior to the issuance of Securities of any series,

(1) the title of the Securities of the series (which shall distinguish the Securities of the series from all other Securities);

(2) any limit upon the aggregate principal amount of the Securities of the series that may be authenticated and delivered under this Indenture (except for Securities



authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to **Section 304, 305, 306, 906, 1107 or 1305** and except for any Securities that, pursuant to **Section 303**, are deemed never to have been authenticated and delivered hereunder);

(3) the price or prices (expressed as a percentage of the principal amount thereof) at which the Securities will be issued and the date or dates on which the principal (and premium, if any) of the Securities of the series, or any Tranche thereof, is payable;

(4) the date or dates on which the principal of the Securities of such series, or any Tranche thereof, is payable or any formula or other method or other means by which such date or dates shall be determined, by reference to an index or other fact or event ascertainable outside of this Indenture or otherwise (without regard to any provisions for redemption, prepayment, acceleration, purchase or extension);

(5) the rate or rates at which the Securities of such series, or any Tranche thereof, shall bear interest, if any (including the rate or rates at which overdue principal shall bear interest, if different from the rate or rates at which such Securities shall bear interest prior to Maturity, and, if applicable, the rate or rates at which overdue premium or interest shall bear interest, if any), or any formula or other method or other means by which such rate or rates shall be determined, by reference to an index or other fact or event ascertainable outside of this Indenture or otherwise; the date or dates from which such interest shall accrue; the Interest Payment Dates on which such interest shall be payable and the Regular Record Date, if any, for the interest payable on such Securities on any Interest Payment Date; the right of the Company, if any, to extend the interest payment periods and the duration of any such extension as contemplated by **Section 312**; and the basis of computation of interest, if other than as provided in **Section 310**;

(6) the place or places where the principal of (and premium, if any) and interest, if any, on Securities of the series, or any Tranche thereof, shall be payable, any Registered Securities of the series, or any Tranche thereof, may be surrendered for registration of transfer, Securities of the series, or any Tranche thereof, may be surrendered for exchange, and where notices and demands to or upon the Company in respect of the Securities of the series, or any Tranche thereof, and this Indenture may be served and notices to Holders pursuant to **Section 106** will be published; the Security Registrar and any Paying Agent or Agents for such series or Tranche; and if such is the case, that the principal of such Securities shall be payable without presentment or surrender thereof;

(7) if applicable, the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series, or any Tranche thereof, may be redeemed, in whole or in part, at the option of the Company and, if other than by a Board Resolution, the manner in which any election by the Company to redeem the Securities shall be evidenced;

(8) the obligation, if any, of the Company to redeem or purchase Securities of the series, or any Tranche thereof, pursuant to any sinking fund or analogous provisions

or at the option of the Holder thereof and the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series, or any Tranche thereof, shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

(9) the terms, if any, on which the Securities of such series will be subordinate in right and priority of payment to other debt of the Company and whether the terms of such subordination shall vary from those set forth in **Article Fifteen**;

(10) the denominations in which any Registered Securities of the series shall be issuable, if other than denominations of \$1,000 and any integral multiple thereof, and the denomination or denominations in which any Unregistered Securities of the series shall be issuable, if other than the denomination of \$5,000;

(11) if other than the principal amount thereof, the portion of the principal amount of Securities of the series that shall be payable upon declaration of acceleration of the Maturity thereof pursuant to **Section 502**;

(12) whether Securities of the series are to be issuable in whole or in part as Registered Securities, Unregistered Securities, or both, whether Securities of the series are to be issuable with or without coupons, whether any Securities of the series are to be issuable initially in temporary global form (and, if so, the identity of the Depository for such Securities if other than the Depository Trust Company) and the circumstances under which such Securities in temporary global form may be exchanged for definitive Securities, and whether any Securities of the series are to be issuable in permanent global form (and, if so, the identity of the Depository for such Securities if other than the Depository Trust Company) with or without coupons and, if so, whether beneficial owners of interests in any such permanent Global Security may exchange such interests for Securities of such series and of like tenor of any authorized form and denomination and the circumstances under which any such exchanges may occur, if other than in the manner provided in **Section 311**;

(13) if other than the currency of the United States of America, the currency or currencies, including composite currencies, in which the principal of or any premium or interest on the Securities of the series shall be payable and the manner of determining the equivalent of any such amount in Dollars is to be determined for any purpose, including for the purpose of determining the principal amount of such Securities deemed to be Outstanding at any time;

(14) if the principal of or any premium or interest on the Securities of such series is to be payable, at the election of the Company or a Holder thereof, in one or more currencies other than that in which such Securities are stated to be payable, currency, currencies or composite currency in which the principal of or any premium or interest on such Securities as to which such election is made shall be payable, the period or periods within which, and the terms and conditions upon which, such election may be made;

(15) if the principal of or any premium or interest on the Securities of such series is to be payable, or is to be payable at the election of the Company or a Holder thereof, in securities or other property, the type and amount of such securities or other property, or the manner of determining such amount shall be determined, and the period or periods within which, and the terms and conditions upon which, any such election may be made;

(16) if the amount of payments of principal of (and premium, if any) or interest on the Securities of the series may be determined with reference to an index or other fact or event ascertainable outside of this Indenture, the manner of determining such amounts to the extent not established pursuant to paragraph (5) of this **Section 301(b)**;

(17) the form or forms of the Securities, including such legends as may be required by United States laws or regulations, the form of any coupons or temporary Global Security, if any, that may be issued and the forms of any certificates that may be required hereunder or under United States laws or regulations in connection with the offering, sale, delivery or exchange of Unregistered Securities, if any;

(18) the Person to whom any interest on any Registered Security of the series shall be payable, if other than the Person in whose name that Security is registered at the close of business on the Regular Record Date for such interest, and the manner in which, or the Person to whom, any interest on any Unregistered Security of the series shall be payable, if otherwise than upon presentation and surrender of the coupons appertaining thereto as they severally mature, and the extent to which, or the manner in which, any interest payable on a temporary or permanent Global Security on an interest payment date will be paid;

(19) any addition to or change in the Events of Default, with respect to the Securities of such series, and any addition to or change in the covenants of the Company for the benefit of the Holders of the Securities of such series in addition to those set forth in **Article Ten**;

(20) the terms, if any, pursuant to which the Securities of such series may be converted into or exchanged for shares of Capital Stock or other securities of the Company or any other Person;

(21) the obligations or instruments, if any, that shall be considered to be Eligible Obligations in respect of the Securities of such series denominated in a currency other than Dollars or in a composite currency;

(22) any exceptions to **Section 113**, or variation in the definition of Business Day, with respect to the Securities of such series;

(23) any collateral security, assurance or guaranty for the Securities of such series;

(24) the non-applicability of **Section 608** to the Securities of such series or any exceptions or modifications of **Section 608** with respect to the Securities of such series;

(25) any rights or duties of another Person to assume the obligations of the Company with respect to the Securities of such series (whether as joint obligor, primary obligor, secondary obligor or substitute obligor) and any rights or duties to discharge and release any obligor with respect to the Securities of such series or this Indenture to the extent related to such series; and

(26) any other terms, conditions and rights of the series (which terms, conditions and rights shall not be inconsistent with the provisions of this Indenture, except as permitted by **Section 901(a)(5)**).

(c) All Securities of any one series (other than Securities offered in a Periodic Offering) and the coupons appertaining to any Unregistered Securities of such series shall be substantially identical except in the case of Registered Securities as to denomination and except as may otherwise be provided in or pursuant to such Board Resolution and set forth in such Officer's Certificate or in any such indenture supplemental hereto and as reasonably acceptable to the Trustee. Securities of different series may differ in any respect.

(d) If the terms and form or forms of any series of Securities are established by or pursuant to a Board Resolution, the Company shall deliver a copy of such Board Resolution to the Trustee at or prior to the issuance of such series with (1) the form or forms of Security that have been approved attached thereto, or (2) if such Board Resolution authorizes a specific officer or officers to approve the terms and form or forms of the Securities, a certificate of such officer or officers approving the terms and form or forms of Security with such form or forms of Securities attached thereto. Such Board Resolution or certificate may provide general terms or parameters for Securities of any series and may provide that the specific terms of particular Securities of a series may be determined in accordance with or pursuant to the Company Order referred to in **Section 303**.

(e) With respect to Securities of a series subject to a Periodic Offering, the indenture supplemental hereto or the Board Resolution that establishes such series, or the Officer's Certificate pursuant to such supplemental indenture or Board Resolution, as the case may be, may provide general terms or parameters for Securities of such series and provide either that the specific terms of Securities of such series shall be specified in a Company Order or that such terms shall be determined by the Company or its agents in accordance with procedures specified in a Company Order as contemplated by **Section 303(c)**.

(f) Unless otherwise specified with respect to a series of Securities pursuant to paragraph (2) of **Section 301(b)**, such series of Securities may be issued in one or more Tranches with various principal amounts without the consent of any Holders and additional Tranches of such series may be authenticated and delivered pursuant to **Section 303**.

**Section 302. Denominations.** The Securities of each series shall be issuable in registered or unregistered form with or without coupons in such denominations as shall be specified as contemplated by **Section 301(b)**. In the absence of any such provisions with respect to the Securities of any series, the Registered Securities of such series shall be issuable in denominations of \$1,000 and any integral multiple thereof and the Unregistered Securities of such series shall be issuable in denominations of \$5,000 and any integral multiple thereof.

Section 303. Execution, Authentication, Delivery and Dating. (a) The Securities to be endorsed thereon shall be executed on behalf of the Company by its Chairman of the Board, Chief Executive Officer, its President, its Vice President, Finance, or its Treasurer, under its corporate seal reproduced thereon attested by its Secretary or one of its Assistant Secretaries. The signature of any of these officers on the Securities may be manual or facsimile. The coupons, if any, of Unregistered Securities shall bear the manual or facsimile signature of any one of the officers referred to in the first sentence of this **Section 303(a)**.

(b) Securities bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities.

(c) At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series (or any Tranche thereof) executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Securities (or such Tranche), and the Trustee in accordance with the Company Order shall authenticate and deliver such Securities (or such Tranche); *provided, however*, that with respect to Securities of a series subject to a Periodic Offering, (i) such Company Order may be delivered by the Company to the Trustee prior to the delivery to the Trustee of such Securities for authentication and delivery, (ii) the Trustee shall authenticate and deliver Securities of such series for original issue from time to time, in an aggregate principal amount not exceeding the aggregate principal amount established for such series, all pursuant to a Company Order or pursuant to such procedures acceptable to the Trustee as may be specified from time to time by a Company Order, (iii) the maturity date or dates, original issue date or dates, interest rate or rates and any other terms of Securities of such series shall be determined by Company Order or pursuant to such procedures and (iv) if provided for in such procedures, such Company Order may authorize authentication and delivery pursuant to oral or electronic instructions from the Company or its duly authorized agent or agents, which oral instructions shall be promptly confirmed in writing.

(d) In authenticating such Securities and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, and (subject to **Section 601**) shall be fully protected in relying upon, an Opinion of Counsel stating:

- (i) that such form of Securities has been established in conformity with the provisions of this Indenture;
- (ii) that such terms have been established in conformity with the provisions of this Indenture; and
- (iii) that such Securities, when authenticated and delivered by the Trustee and issued by the Company in the manner and subject to any conditions specified in such

Opinion of Counsel, will constitute valid and legally binding obligations of the Company, enforceable in accordance with their terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights generally and to general principles of equity.

(e) Notwithstanding the provisions of **Section 301** and of the preceding paragraphs of **Sections 303(c) and 303(d)** in connection with a Periodic Offering, if all Securities of a series are not to be originally issued at one time, it shall not be necessary to deliver an Officer's Certificate or execute a supplemental indenture otherwise required pursuant to **Section 301(b)** or the Company Order and Opinion of Counsel otherwise required pursuant to such preceding paragraphs at or prior to the time of authentication of each Security of such series if such documents are delivered at or prior to the authentication upon original issuance of the first Security of such series to be issued.

(f) If such form or terms have been so established, the Trustee shall not be required to authenticate such Securities if the issuance of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner that is not reasonably acceptable to the Trustee.

(g) Each Registered Security shall be dated the date of its authentication and each Unregistered Security shall be dated the date of its original issuance.

(h) No Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security a certificate of authentication substantially in the form provided for herein executed by the Trustee by manual or facsimile signature and no coupon shall be valid until the Security to which it appertains has been so authenticated, and such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder and is entitled to the benefits of this Indenture.

(i) Notwithstanding the foregoing, until the Company has delivered an Officer's Certificate to the Trustee and the Security Registrar stating that, as a result of the action described, the Company would not suffer adverse consequences under the provisions of United States law or regulations in effect at the time of the delivery of Unregistered Securities, the Trustee or the Security Registrar will (i) deliver Unregistered Securities only outside the United States and its possessions and (ii) release Unregistered Securities in definitive form to the person entitled to physical delivery thereof only upon presentation of a certificate in the form prescribed by the Company.

Section 304. Temporary Securities. (a) Until definitive Securities of any series (including Global Securities) are ready for delivery, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver one or more temporary Securities that are produced in any authorized denomination, substantially of the tenor of the definitive Securities in lieu of which they are issued and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as evidenced by their execution of such Securities. Temporary Unregistered Securities of a series may have coupons attached or may be in the form of one or more temporary

Global Securities that are Unregistered Securities of that series without coupons. Every temporary Security shall be executed by the Company and authenticated by the Trustee (and Registered Securities shall be registered by the Security Registrar) upon the same conditions, and with like effect, as a definitive Security.

(b) If temporary Securities of any series are issued, the Company will cause definitive Securities of that series to be prepared without unreasonable delay. After the preparation of definitive Securities of such series, the temporary Securities of such series shall be exchangeable for definitive Securities of such series upon surrender of the temporary Securities of such series at the office or agency of the Company in a Place of Payment for that series, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities of any series the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a like principal amount of definitive Securities of the same series of authorized denominations. Until so exchanged the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as definitive Securities of such series.

(c) Every temporary Unregistered Security shall be substantially in the form approved by or pursuant to a Board Resolution and shall be delivered to one of the Paying Agents located outside the United States and its possessions or to such other person or persons as the Company shall direct against such certification as the Company may from time to time prescribe by or pursuant to a Board Resolution.

Section 305. Registration, Registration of Transfer and Exchange. (a) The Company shall cause to be kept at the Corporate Trust Office of the Trustee a register (the register maintained in such office and in any other office or agency of the Company in a Place of Payment being herein sometimes collectively referred to as the "Security Register") in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Securities and of transfers of Securities. The Trustee is hereby appointed "Security Registrar" for the purpose of registering Securities and transfers of Securities as herein provided.

(b) Except in the case of Securities issued in the form of a Global Security, upon surrender for registration of transfer of any Registered Security of any series at the office or agency of the Company in a Place of Payment for that series, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Registered Securities of the same series, of any authorized denominations and of a like aggregate principal amount.

(c) If both Registered and Unregistered Securities are authorized for a series of Securities and the terms of such Securities permit, (i) Unregistered Securities may be exchanged for an equal principal amount of Registered or Unregistered Securities of the same series and date of maturity in any authorized denominations upon delivery to the Security Registrar (or a Paying Agent (as herein defined), if the exchange is for Unregistered Securities) of the Unregistered Security with all unmatured coupons and all matured coupons in default appertaining thereto and if all other requirements of the Security Registrar (or such Paying Agent) and such Securities for such exchange are met, and (ii) Registered Securities, other than

Securities issued in the form of a Global Security (except as provided in **Section 311**), may be exchanged for an equal principal amount of Unregistered Securities of the same series and date of maturity in any authorized denominations (except that any coupons appertaining to such Unregistered Securities which have matured and have been paid shall be detached) upon delivery to the Security Registrar of the Registered Securities and if all other requirements of the Security Registrar and such Securities for such exchange are met.

(d) Notwithstanding the foregoing, the exchange of Unregistered Securities for Registered Securities or Registered Securities for Unregistered Securities will be subject to the satisfaction of the provisions of United States law and regulations in effect at the time of such exchange, and no exchange of Registered Securities for Unregistered Securities will be made until the Company has notified the Trustee in an Officer's Certificate and the Security Registrar that, as a result of such exchange, the Company would not suffer adverse consequences under such law or regulations.

(e) All Securities issued upon any registration of transfer or exchange of Securities shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or exchange.

(f) Every Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Trustee) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by the Holder thereof or such Holder's attorney duly authorized in writing.

(g) Unless otherwise provided in a Board Resolution or an Officer's Certificate pursuant to a Board Resolution, or in an indenture supplemental hereto, with respect to Securities of any series, no service charge shall be made to the Holder for any registration of transfer or exchange of Securities, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or exchange of Securities, other than exchanges pursuant to **Section 304, 906 or 1106** not involving any transfer.

(h) The Company shall not be required (i) to issue, register the transfer of or exchange Securities of any series during a period beginning at the opening of business 15 days before the day of the mailing of a notice of redemption of Securities of that series selected for redemption under **Section 1103** and ending at the close of business on the day of such mailing, or (ii) to register the transfer of or exchange any Security so selected for redemption in whole or in part, except the unredeemed portion of any Security being redeemed in part.

(i) Unregistered Securities or any coupons appertaining thereto shall be transferable by delivery thereof.

Section 306. Mutilated, Destroyed, Lost and Stolen Securities. (a) If any mutilated Security or a Security with a mutilated coupon or coupons appertaining to it is surrendered to the Trustee, the Company shall execute and the Trustee shall authenticate and



deliver in exchange therefor a replacement Registered Security, if such surrendered security was a Registered Security, or a replacement Unregistered Security with coupons corresponding to the coupons appertaining to the surrendered Security, if such surrendered Security was an Unregistered Security, of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

(b) If there has been delivered to the Company and the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security or any coupon or coupons appertaining thereto, and (ii) such bond, security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of actual notice to the Company or the Trustee that such Security or any coupon or coupons appertaining thereto has been acquired by a bona fide purchaser, the Company shall execute and upon its request the Trustee shall authenticate and deliver, a replacement Registered Security, if such Holder's claim pertains to a Registered Security, or a replacement Unregistered Security with coupons corresponding to the coupons appertaining to the destroyed, lost or stolen Unregistered Security or the Unregistered Security to which such destroyed, lost or stolen coupon or coupons appertains, if such Holder's claim pertains to an Unregistered Security, of the same series (and Tranche, if applicable) and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

(c) In case any such mutilated, destroyed, lost or stolen Security or any coupon or coupons appertaining thereto has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, pay such Security or any coupon or coupons appertaining thereto.

(d) Upon the issuance of any new Security under this Section or any coupon or coupons appertaining thereto, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

(e) Every new Security or any coupon or coupons appertaining thereto of any series issued pursuant to this Section in lieu of any destroyed, lost or stolen Security or any coupon or coupons appertaining thereto shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Security or any coupon or coupons appertaining thereto is at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities or any coupon or coupons appertaining thereto of that series duly issued hereunder.

(f) The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities or any coupon or coupons appertaining thereto.

Section 307. Payment of Interest; Interest Rights Preserved. (a) Unless otherwise provided as contemplated by **Section 301(b)** with respect to the Securities of any series, interest on any Registered Security that is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Registered Security (or one or more Predecessor Securities) is registered at the close of business

on the Regular Record Date for such interest; *provided, however*, that interest payable at Maturity will be paid to the Person to whom principal is payable. In case an Unregistered Security of any series is surrendered in exchange for a Registered Security of such series after the close of business (at an office or agency of the Company in a Place of Payment for such series) on any Regular Record Date and before the opening of business (at such office or agency) on the next succeeding Interest Payment Date, such Unregistered Security shall be surrendered without the coupon relating to such Interest Payment Date and interest will not be payable on such Interest Payment Date in respect of the Registered Security issued in exchange for such Unregistered Security, but will be payable only to the Holder of such coupon when due in accordance with provisions of this Indenture.

(b) Any interest on any Registered Security of any series that is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called "*Defaulted Interest*") shall forthwith cease to be payable to the Holder on the relevant Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in clause (i) or (ii) below:

(i) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Registered Securities of such series (or their respective Predecessor Securities) are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Registered Security of such series and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Holder of Registered Securities of such series at the address of such Holder as it appears in the Security Register, not less than 10 days prior to such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been so mailed, such Defaulted Interest shall be paid to the Persons in whose names the Registered Securities of such series (or their respective Predecessor Securities) are registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following clause (2). In case an Unregistered Security of any series is surrendered at the office or agency of the Company in a Place of Payment for such series in exchange for a Registered Security of such series after the close of business at such office or agency on any Special Record Date and before the opening of business at such office or agency on the related proposed date for payment of Defaulted Interest, such Unregistered Security shall be surrendered without the coupon relating to such proposed date of payment and

Defaulted Interest will not be payable on such proposed date of payment in respect of the Registered Security issued in exchange for such Unregistered Security, but will be payable only to the Holder of such coupon when due in accordance with the provisions of this Indenture.

(ii) The Company may make payment of any Defaulted Interest on the Registered Securities of any series in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause (ii), such manner of payment shall be deemed practicable by the Trustee.

(c) Subject to the foregoing provisions of this Section, each Registered Security delivered under this Indenture upon registration of transfer of or in exchange for or in lieu of any other Registered Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Registered Security.

(d) Subject to the limitations set forth in **Section 1002**, the Holder of any coupon appertaining to an Unregistered Security shall be entitled to receive the interest payable on such coupon upon presentation and surrender of such coupon on or after the Interest Payment Date of such coupon at an office or agency maintained for such purpose pursuant to **Section 1002**.

**Section 308. Persons Deemed Owners.** Prior to due presentment of a Registered Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name such Registered Security is registered as the owner of such Registered Security for the purpose of receiving payment of principal of (and any premium) and (subject to **Section 301** and **Section 307**) any interest on such Registered Security and for all other purposes whatsoever, whether or not such Registered Security be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

Ownership of Registered Securities of a series shall be proved by the computerized book-entry system of the Depository in the case of Registered Securities issued in the form of a Global Security. Ownership of Unregistered Securities may be proved by the production of such Unregistered Securities or by a certificate or affidavit executed by the person holding such Unregistered Securities or by a depository with whom such Unregistered Securities were deposited, if the certificate or affidavit is satisfactory to the Trustee and the Company. The Company, the Trustee and any agent of the Company may treat the bearer of any Unregistered Security or coupon and the person in whose name a Registered Security is registered as the absolute owner thereof for all purposes.

None of the Company, the Trustee, any Paying Agent or the Security Registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Section 309. Cancellation. Except as otherwise specified as contemplated by **Section 301(b)** for Securities of any series, all Securities and coupons surrendered for payment, redemption, registration of transfer or exchange or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee and, if not theretofore cancelled, shall be promptly cancelled by it. Except as otherwise specified as contemplated by **Section 301(b)** for Securities of any series, the Company may at any time deliver to the Trustee for cancellation any Securities or coupons previously authenticated and delivered hereunder that the Company may have acquired in any manner whatsoever or that the Company has not issued and sold, and all Securities or coupons so delivered shall be promptly cancelled by the Trustee. No Securities shall be authenticated in lieu of or in exchange for any Securities or coupons cancelled as provided in this Section, except as expressly permitted by this Indenture. All cancelled Securities or coupons held by the Trustee shall be destroyed and the Trustee shall furnish an affidavit to the Company (setting forth the serial numbers of such Securities) attesting to such destruction unless by a Company Order the Company shall direct that the cancelled Securities or coupons be returned to it.

Section 310. Computation of Interest. Except as otherwise specified as contemplated by **Section 301(b)** for Securities of any series, interest on the Securities of each series shall be computed on the basis of a 360-day year of twelve 30-day months.

Section 311. Global Securities; Exchanges; Registration and Registration of Transfer.

If specified as contemplated by **Section 301(b)** for Securities of any series, the Securities of such series may be issued in the form of one or more Global Securities, which shall be deposited with the Depository, and, unless otherwise specified in the form of Global Security adopted pursuant to **Section 301**, be registered in the name of the Depository's nominee.

Except as otherwise specified as contemplated by **Section 301(b)** for Securities of any series, any permanent Global Security shall be exchangeable only as provided in this paragraph. If the beneficial owners of interests in a permanent Global Security are entitled to exchange such interests for Securities of such series of like tenor and principal amount of another authorized form, as specified as contemplated by **Section 301(b)**, then without unnecessary delay but in any event not later than the earliest date on which such interests may be so exchanged, the Company shall deliver to the Trustee definitive Securities of that series in aggregate principal amount equal to the principal amount of such permanent Global Security, executed by the Company. On or after the earliest date on which such interests may be so exchanged, such permanent Global Security shall be surrendered from time to time in accordance with instructions given to the Trustee and the Depository (which instructions shall be in writing but need not comply with **Section 102** or be accompanied by an Opinion of Counsel) by the Depository or such other depository as shall be specified in the Company Order with respect thereto to the Trustee, as the Company's agent for such purpose, to be exchanged, in whole or in part, for definitive Securities of the same series without charge and the Trustee shall authenticate and deliver, in exchange for each portion of such permanent Global Security, a like aggregate principal amount of definitive Securities of the same series of authorized denominations and of like tenor as the portion of such permanent Global Security to be exchanged which, unless the Securities of the series are not issuable both as Unregistered Securities and as Registered Securities, as specified as contemplated by **Section 301(b)**, shall be in the form of Unregistered Securities or Registered

Securities, or any combination thereof, as shall be specified by the beneficial owner thereof; *provided, however*, that no such exchanges may occur during the periods specified by **Section 305**; and *provided, further*, that no Unregistered Security delivered in exchange for a portion of a permanent Global Security shall be mailed or otherwise delivered to any location in the United States unless the Company has complied with **Section 305(d)**. Promptly following any such exchange in part, such permanent Global Security shall be returned by the Trustee, to the Depository or such other depository referred to above, in accordance with the instructions of the Company referred to above.

The Global Security may be transferred to another nominee of the Depository, or to a successor Depository selected by the Company, and upon surrender for registration of transfer of the Global Security to the Trustee, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee, a new Global Security in the same aggregate principal amount. If at any time the Depository notifies the Company that it is unwilling or unable to continue as Depository and a successor Depository satisfactory to the Company is not appointed within 90 days after the Company receives such notice, the Company will execute, and the Trustee will authenticate and deliver, Securities in definitive form to the Depository in exchange for the Global Security. In addition, if at any time the Company determines that it is not in the best interest of the Company or the beneficial owners of Securities to continue to have a Global Security representing all of the Securities held by a Depository, the Company may, at its option, execute, and the Trustee will authenticate and deliver, Securities in definitive form to the Depository in exchange for all or a portion of the Global Security. Promptly after any such exchange of Securities in definitive form for all or a portion of the Global Security pursuant to this paragraph, the Company shall promulgate regulations governing registration of transfers and exchanges of Securities in definitive form, which regulations shall be reasonably satisfactory to the Trustee and shall thereafter bind every Holder of such Securities.

Section 312. Extension of Interest Payment. The Company shall have the right at any time, so long as the Company is not in default in the payment of interest on the Securities of any series hereunder, to extend interest payment periods on all Securities of one or more series, if so specified as contemplated by **Section 301(b)** with respect to such Securities and upon such terms as may be specified as contemplated by **Section 301(b)** with respect to such Securities. If the Company ever so extends any such interest payment period, the Company shall promptly notify the Trustee.

#### ARTICLE FOUR

#### DISCHARGE OF INDENTURE

Section 401. Termination of Company's Obligations. (a) This Indenture shall upon Company Request cease to be of further effect with respect to the Securities of any series (except as to any surviving rights of registration of transfer or exchange of Securities herein expressly provided for), and the Trustee, at the expense of the Company, shall execute instruments in form and substance satisfactory to the Trustee and the Company acknowledging termination of the Company's obligations under the Securities of such series and this Indenture, when

(1) either

(A) all Securities of such series previously authenticated and delivered (other than (i) Securities of such series that have been destroyed, lost or stolen and that have been replaced or paid as provided in **Section 306** and (ii) Securities of such series that are deemed paid and discharged pursuant to **Section 402**) have been delivered to the Trustee for cancellation; or

(B) all such Securities of such series not previously delivered to the Trustee for cancellation

(i) have become due and payable (whether at Stated Maturity, early redemption or otherwise), or

(ii) will become due and payable at their Stated Maturity within one year, or

(iii) have been called for redemption pursuant to **Article Eleven** hereof under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company,

and the Company has deposited or caused to be deposited irrevocably with the Trustee as funds in trust solely for the benefit of the Holders of the Securities of such series an amount in cash in the currency or composite currency in which the Securities of such series are denominated, Eligible Obligations or any combination thereof, together (if necessary in the case of a series of Securities not bearing interest at a fixed rate) with any Hedging Obligation, so that such funds in each case are sufficient to pay principal of, and any premium and interest on, all Outstanding Securities of such series;

(2) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(3) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with.

(b) Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under **Section 607**, the obligations of the Trustee to any Authenticating Agent under **Section 614** and, if money has been deposited with the Trustee pursuant to subclause (B) of clause (1) of this Section, the obligations of the Trustee under **Section 405** shall survive.

(c) Upon satisfaction and discharge of this Indenture as provided in this **Section 401**, the Trustee shall assign, transfer and turn over to the Company, subject to the lien provided by **Section 607**, any and all money, securities and other property then held by the Trustee for the benefit of the Holders of the Securities.

The Company may elect, at its option at any time, to have **Section 402** or **Section 403** applied to the Outstanding Securities of any series in accordance with any applicable requirements provided pursuant to **Section 301** and upon compliance with the conditions set forth below in this Article. Any such election shall be evidenced by a Board Resolution or in another manner specified as contemplated by **Section 301(b)** for such Securities.

Section 402. Defeasance and Discharge of Indenture. Subject to the conditions set forth in **Section 404** being satisfied, the Company shall be deemed to have paid and discharged the entire indebtedness on all the Outstanding Securities of any series or Tranche, or any portion of the principal amount thereof, on the 91st day after the date of the deposit referred to in subparagraph (i) of **Section 404**, and the provisions of this Indenture, as it relates to such Outstanding Securities of such series or Tranche, shall be satisfied and discharged and shall no longer be in effect (and the Trustee, at the expense of the Company, shall at Company Request execute proper instruments acknowledging the same), except as to:

- (a) the rights of Holders of Securities of such series to receive, solely from the trust funds described in **Section 405**, (x) payment of the principal of (and premium, if any) and each installment of principal of (and premium, if any) or interest, if any, on the Outstanding Securities of such series, or portions thereof, on the Stated Maturity of such principal or installment of principal or interest to and including the Redemption Date designated by the Company pursuant to subparagraph (ix) of **Section 404** and (y) the benefit of any mandatory sinking fund payments applicable to the Securities of such series or Tranche on the day on which such payments are due and payable in accordance with the terms of this Indenture and the Securities of such series or Tranche;
- (b) the obligations of the Company and the Trustee with respect to such Securities of such series or Tranche under **Sections 304, 305, 306, 614, 1002, 1003 and 1203** and, if the Company shall have designated a Redemption Date pursuant to subparagraph (ix) of **Section 404, Sections 1104 and 1106**; and
- (c) the Company's obligations with respect to the Trustee under **Section 607**.

Section 403. Defeasance of Certain Obligations. The Company may omit to comply with its obligations under the covenants contained in **Sections 801, 1005 and 1006** with respect to any Security or Securities of any series (and in respect of any term, provision or condition set forth in the covenants or restrictions specified for such Securities pursuant to **Section 301(b)(20)**, in any supplemental indenture, Board Resolution or Officer's Certificate establishing such Security), and the failure to comply with any such provisions shall not constitute a Default or Event of Default under **Section 501(4)**, *provided* that the conditions set forth in **Section 404** have been satisfied.

Section 404. Conditions to Defeasance. The following conditions shall be the conditions to the application of **Section 402** and **Section 403**:

- (i) the Company has deposited or caused to be deposited irrevocably with the Trustee as trust funds in trust, specifically pledged as security for, and dedicated solely to, the benefit of the Holders of the Securities of such series, (x) cash in Dollars (or such

other currency or composite currency in which such Securities are denominated) in an amount sufficient, or (y) Eligible Obligations which through the payment of interest and principal in respect thereof in accordance with their terms will provide on or before the due date of any payment referred to in clause (1) or (2) of this subparagraph (i) money in an amount sufficient or (z) a combination of such cash and Eligible Obligations, together (if necessary in the case of a series of Securities not bearing interest at a fixed rate) with any Hedging Obligation so that such funds are sufficient, in the opinion of a nationally recognized firm of independent certified public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge (1) the principal of (and premium, if any) and each installment of principal (and premium, if any) and interest, if any, on such Securities on the Stated Maturity of such principal or installment of principal or interest or to and including the Redemption Date designated by the Company pursuant to subparagraph (ix) of **Section 404** and (2) any mandatory sinking fund payments applicable to the Securities of such series on the day on which such payments are due and payable in accordance with the terms of this Indenture and of the Securities of such series;

(ii) in the event of an election to have **Section 402** apply, the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel to the effect that (x) the Company has received from, or there has been published by, the Internal Revenue Service a ruling or (y) there has been a change in law or regulation occurring after the date hereof, to the effect that Holders of the Securities of such series will not recognize income, gain or loss for federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to federal income tax on the same amount and in the same manner and at the same times, as would have been the case if such deposit, defeasance and discharge had not occurred;

(iii) in the event of an election to have **Section 403** apply, the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel to the effect that Holders of the Securities of such series will not recognize income, gain or loss for federal income tax purposes as a result of such deposit and defeasance and will be subject to federal income tax on the same amount and in the same manner and at the same times, as would have been the case if such deposit and defeasance had not occurred;

(iii) such deposit will not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound;

(iv) such provision would not cause any Outstanding Securities of such series then listed on the New York Stock Exchange or other securities exchange to be delisted as a result thereof;

(v) no Event of Default or event that with notice or lapse of time would become an Event of Default with respect to the Securities of such series has occurred and is continuing on the date of such deposit or during the period ending on the 91st day after such date;



(vi) the Company has delivered to the Trustee an Officer's Certificate stating that the deposit was not made by the Company with the intent of preferring the holders of the Securities of such series over any other creditors of the Company or with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company;

(vii) such deposit shall not, as specified in an Opinion of Counsel, cause the Trustee with respect to the Securities of such series to have a conflicting interest as defined in **Section 608** and for purposes of the Trust Indenture Act with respect to the Securities of such series;

(viii) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent provided for relating to the defeasance contemplated by this Section have been complied with; and

(ix) if the Company has deposited or caused to be deposited money or Eligible Obligations to pay or discharge the principal of (and premium, if any) and interest on the Outstanding Securities of a series to and including a Redemption Date pursuant to clause (i) of this Section 404, such Redemption Date shall be irrevocably designated by a Board Resolution delivered to the Trustee on or prior to the date of deposit of such money or Eligible Obligations, and such Board Resolution shall be accompanied by an irrevocable Company Request that the Trustee give notice of such redemption in the name and at the expense of the Company not less than 30 nor more than 60 days prior to such Redemption Date in accordance with **Section 1104**.

Section 405. Application of Trust Money. (a) Neither the Eligible Obligations nor the funds deposited with the Trustee pursuant to **Sections 401, 402 or 403**, nor the principal or interest payments on any such Eligible Obligations, shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal of and premium, if any, and interest, if any, on the Securities or portions of principal amount thereof in respect of which such deposit was made, all subject, however, to the provisions of **Section 606**; *provided, however*, that, so long as no Event of Default has occurred and is continuing, any cash received from such principal or interest payments on such Eligible Obligations deposited with the Trustee, if not then needed for such purpose, shall, to the extent practicable, be invested in Eligible Obligations of the type described in **Sections 401 and 402(d)(2)(A)** maturing at such times and in such amounts as shall be sufficient to pay when due the principal of and any premium and interest due and to become due on such Securities or portions thereof on and prior to the Maturity thereof, and interest earned from such reinvestment shall be paid over to the Company as received by the Trustee, free and clear of any trust, lien or pledge under this Indenture except the lien provided by **Section 607**; and *provided, further*, that, so long as there shall not have occurred and be continuing an Event of Default, any moneys held by the Trustee in accordance with this Section on the Maturity of all such Securities in excess of the amount required to pay the principal of and premium, if any, and interest, if any, then due on such Securities shall be paid over to the Company free and clear of any trust, lien or pledge under this Indenture except the lien provided by **Section 607**.

(b) The Company shall pay and shall indemnify the Trustee against any tax, fee or other charge imposed on or assessed against Eligible Obligations deposited pursuant to **Section 401, 402 or 403** or the principal and any premium and interest received in respect of such obligations other than any payable by or on behalf of Holders.

(c) The Trustee shall deliver of pay to the Company from time to time upon Company Request any Eligible Obligations or money held by it as provided in **Section 401, 402 or 403** that, in the opinion of a nationally recognized firm of independent certified public accountants expressed in a written certification thereof delivered to the Trustee, are then in excess of the amount thereof that then would have been required to be deposited for the purpose for which such Eligible Obligations or money was deposited or received. This provision shall not authorize the sale by the Trustee of any Eligible Obligations held under this Indenture.

Section 406. Reinstatement. If the Trustee or the Paying Agent is unable to apply any money in accordance with this Article with respect to any Securities by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the obligations under this Indenture and such Securities from which the Company has been discharged or released pursuant to **Section 402** or **Section 403** shall be revived and reinstated as though no deposit had occurred pursuant to this Article with respect to such Securities, until such time as the Trustee or Paying Agent is permitted to apply all money held in trust pursuant to **Section 405** with respect to such Securities in accordance with this Article; *provided, however*, that if the Company makes any payment of principal of or any premium or interest on any such Security following such reinstatement of its obligations, the Company shall be subrogated to the rights (if any) of the Holders of such Securities to receive such payment from the money so held in trust.

## ARTICLE FIVE

### REMEDIES

Section 501. Events of Default. "Event of Default", wherever used herein with respect to Securities of any series, means any one of the following events:

(1) default in the payment of any interest upon any Security of that series when it becomes due and payable, and continuance of such default for a period of 30 days; *provided, however*, that a valid extension of the interest payment period by the Company as contemplated in **Section 312** shall not constitute a failure to pay interest for this purpose; or

(2) default in the payment of the principal of (or premium, if any, on) any Security of that series at its Maturity and, in the case of technical or administrative difficulties, only if such default persists for a period of more than three Business Days; or

(3) default in the deposit of any sinking fund payment, when and as due by the terms of a Security of that series and continuance of such default for a period of 30 days; or

(4) default in the performance, or breach, of any covenant or warranty of the Company in this Indenture (other than a covenant or warranty a default in whose

performance or whose breach is elsewhere in this Section specifically dealt with or which has expressly been included in this Indenture solely for the benefit of one or more series of Securities other than that series), and continuance of such default or breach for a period of 60 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in aggregate principal amount of the Outstanding Securities of such series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" hereunder; or

(5) the entry by a court having jurisdiction in the premises of (A) a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or (B) a decree or order adjudging the Company a bankrupt or insolvent, or approving as properly filed a petition seeking reorganization, arrangement, adjustment or composition of or in respect of the Company under any applicable federal or state law, or appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any substantial part of its property, or ordering the winding up or liquidation of its affairs, and the continuance of any such decree or order for relief or any such other decree or order unstayed and in effect for a period of 60 consecutive days; or

(6) the commencement by the Company of a voluntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by it to the entry of a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under any applicable federal or state law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or similar official of the Company or of any substantial part of its property, or the making by it of an assignment for the benefit of creditors, or the admission by it in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company in furtherance of any such action; or

(7) any other Event of Default provided with respect to Securities of such series pursuant to **Section 301(b)(20)**.

Section 502. Acceleration of Maturity; Rescission and Annulment. If an Event of Default with respect to any series of Senior Securities at the time Outstanding occurs and is continuing, then, unless the principal of and interest on such series of Senior Securities has already become due and payable, either the Trustee or the Holders of 25% in aggregate principal amount of such series of Senior Securities then outstanding, by notice in writing to the Company (and to the Trustee if given by such Holders), may declare the principal of and interest on all the Senior Securities of such series (or if any of the Senior Securities are Original Issue Discount Securities or Indexed Securities, such portion of the principal amount of such Securities as may be specified in the terms thereof) to be due and payable immediately and upon any such

declaration the same shall become immediately due and payable, anything in this Indenture or in the Senior Securities of such series contained to the contrary notwithstanding; *provided, however*, that if an Event of Default has occurred and is continuing with respect to more than one series of Senior Securities, the Trustee or the Holders of 25% in aggregate principal amount of the Outstanding Senior Securities (or if any of the Senior Securities are Original Issue Discount Securities or Indexed Securities, such portion of the principal amount of such Securities as may be specified in the terms thereof) of all such series (voting as one class) may make such declaration of acceleration, and not the Holders of the Senior Securities of any one of such series.

If an Event of Default with respect to any series of Subordinated Securities at the time Outstanding occurs and is continuing, then, unless the principal of and interest on such series of Subordinated Securities has already become due and payable, either the Trustee or the Holders of 25% in aggregate principal amount of the Subordinated Securities of such series then outstanding, by notice in writing to the Company (and to the Trustee if given by such Holders), may declare the principal of and interest on all the Subordinated Securities of such series (or if any of the Subordinated Securities are Original Issue Discount Securities or Indexed Securities, such portion of the principal amount of such Securities as may be specified in the terms thereof) to be due and payable immediately and upon any such declaration the same shall become immediately due and payable, anything in this Indenture or in the Subordinated Securities of such series contained to the contrary notwithstanding; *provided, however*, that if an Event of Default has occurred and is continuing with respect to more than one series of Subordinated Securities, the Trustee or the Holders of 25% in aggregate principal amount of the Outstanding Subordinated Securities (or if any of the Subordinated Securities are Original Issue Discount Securities or Indexed Securities, such portion of the principal amount of such Securities as may be specified in the terms thereof) of all such series of equal ranking (voting as one class) may make such declaration of acceleration, and not the Holders of the Subordinated Securities of any one of such series.

Notwithstanding the foregoing, if an Event of Default specified in **Section 501(5)** or **(6)** occurs, the principal of and interest on all the Securities (or if any of the Securities are Original Issue Discount Securities or Indexed Securities, such portion of the principal amount of such Securities as may be specified in the terms thereof) shall automatically become and be immediately due and payable without any declaration or other act or notice on the part of the Trustee or any Holders of the Securities.

In the case of any declaration of acceleration of the Stated Maturity of any Original Issue Discount Securities or Indexed Securities of a series, the Company shall furnish the Trustee with an Officer's Certificate stating the amount of principal to be paid to a Holder of \$1,000 principal amount of such Securities.

At any time after such a declaration of acceleration with respect to Securities of one or more series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Event or Events of Default giving rise to such declaration of acceleration shall, without further act, be deemed to have been waived, and such declaration and its consequences shall, without further act, be deemed to have been rescinded and annulled, if

(1) the Company has paid or deposited irrevocably with the Trustee a sum sufficient to pay

(A) all overdue interest on all Securities of any such series,

(B) the principal of (and premium, if any, on) any Securities of such series that have become due otherwise than by such declaration of acceleration and interest thereon at the rate or rates prescribed therefor in such Securities,

(C) to the extent that payment of such interest is lawful, interest upon overdue interest at the rate or rates borne by such Securities, unless another rate is provided in such Securities, and

(D) all amounts due to the Trustee under **Section 607**;

and

(2) all Events of Default with respect to Securities of that series, other than the non-payment of the principal of Securities of that series that have become due solely by such declaration of acceleration, have been cured or waived as provided in **Section 513**.

No such rescission shall affect any subsequent Event of Default or impair any right consequent thereon.

Section 503. Collection of Indebtedness and Suits for Enforcement by Trustee. If an Event of Default described in clause (1) or (2) of **Section 501** has occurred and is continuing, the Company shall, upon demand of the Trustee, pay to the Trustee, for the benefit of the Holders of the Securities of the series with respect to which such Event of Default has occurred, the whole amount then due and payable on such Securities for principal and any premium or interest and, to the extent that payment of such interest shall be legally enforceable, interest on any overdue principal and premium and on any overdue interest, at the rate or rates borne by such Securities, unless another rate is provided in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover any amounts due to the Trustee under **Section 607**.

If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such series by such appropriate judicial proceedings as the Trustee deems most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

Section 504. Trustee May File Proofs of Claim. In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities or the property of the Company or of such other obligor or their creditors, the Trustee (irrespective of whether the principal of the Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise,

(i) to file and prove a claim for the whole amount of principal and premium or interest owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for amounts due to the Trustee under **Section 607**) and of the Holders allowed in such judicial proceeding, and

(ii) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, if the Trustee consents to the making of such payments directly to the Holders, to pay to the Trustee any amount due it under **Section 607**.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

Section 505. Trustee May Enforce Claims Without Possession of Securities or Coupons. All rights of action and claims under this Indenture or the Securities or coupons may be prosecuted and enforced by the Trustee without the possession of any of the Securities or coupons or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the amounts due to the Trustee under **Section 607**, be for the ratable benefit of the Holders of the Securities and coupons in respect of which such judgment has been recovered.

Section 506. Application of Money Collected. Any money collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee, and, in case of the distribution of such money on account of principal and any premium and interest, upon presentation of the Securities in respect of which or for the benefit of which such money shall have been collected and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee under **Section 607**;

SECOND: To the payment of the amounts then due and unpaid for principal of and any premium and interest on the Securities in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal and any premium and interest, respectively; and

THIRD: The balance, if any, to the Company.

The Trustee may fix a record date (with respect to Registered Securities) and payment date for any such payment to Holders of Securities.

Section 507. Limitation on Suits. No Holder of any Security of any series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

(1) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of that series;

(2) the Holders of not less than a majority in aggregate principal amount of the Outstanding Securities of all series of Senior Securities in respect of which an Event of Default has occurred and is continuing, considered as one class, shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder if such holder is a Holder of Senior Securities or the Holders of not less than a majority in aggregate principal amount of the Outstanding Securities of all series of Subordinated Securities of equal ranking in respect of which an Event of Default has occurred and is continuing, considered as one class, shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder if such Holder is a Holder of Subordinated Securities;

(3) such Holder or Holders have offered to the Trustee indemnity against the reasonable costs, expenses and liabilities to be incurred in compliance with such request;

(4) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

(5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in aggregate principal amount of the Outstanding Securities of all series of Senior Securities or Subordinated Securities of equal ranking, as applicable, in respect of which such Event of Default has occurred;

it being understood and intended that (subject to **Section 508**) no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all of such Holders.

Section 508. Unconditional Right of Holders to Receive Principal, Premium and Interest. Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of and premium and (subject to **Section 307**) interest on such Security on the Stated Maturity or Maturities expressed in such Security (or, in the case of redemption, on the Redemption Date, or, in the case of repayment at the option of the Holder, on the Repayment Date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

Section 509. Restoration of Rights and Remedies. If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and such Holder shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and such Holder shall continue as though no such proceeding had been instituted.

Section 510. Rights and Remedies Cumulative. Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of **Section 306**, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 511. Delay or Omission Not Waiver. No delay or omission of the Trustee or of any Holder of any Securities to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

Section 512. Control by Holders. If an Event of Default shall have occurred and be continuing in respect of a series of Securities, the Holders of a majority in aggregate principal amount of the Outstanding Securities of such series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee, with respect to the Securities of such series or Tranche; *provided, however*, that if an Event of Default has occurred and is continuing with respect to more than one series of Senior Securities, the Holders of a majority in aggregate principal amount of the Outstanding Securities of all such series, considered as one class, shall have the right to make such direction, and not the Holders of the Senior Securities of any one of such series, and if an Event of Default has occurred and is continuing with respect to more than one series of Subordinated Securities of equal ranking, the Holders of a majority in aggregate principal amount of all such series, considered as one class, shall have the right to make such direction, and not the Holders of the Subordinated Securities of any one of such series; *provided, further* that

(1) such direction shall not be in conflict with any rule of law or with this Indenture, and



(2) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction.

Section 513. Waiver of Past Defaults. The Holders of not less than a majority in aggregate principal amount of the Outstanding Securities of any series may on behalf of the Holders of all the Securities of such series waive any past default hereunder with respect to such series and its consequences; *provided* that if any such past default has occurred with respect to more than one series of Senior Securities, the Holders of a majority in aggregate principal amount of the Outstanding Securities of all such series, considered as one class, may make such waiver, and not the Holders of the Senior Securities of any one of such series; *provided further* that if any such past default has occurred with respect to more than one series of Subordinated Securities of equal ranking, the Holders of a majority in aggregate principal amount of the Outstanding Securities of all such series, considered as one class, may make such waiver, and not the Holders of the Subordinated Securities of any one of such series, in each case, except a default

(1) in the payment of the principal of or premium or interest on any Security of such series, or

(2) in respect of a covenant or provision hereof that under **Section 902** cannot be modified or amended without the consent of the Holder of each Outstanding Security of such series affected.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture, but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

Section 514. Undertaking for Costs. All parties to this Indenture agree, and each Holder of any Security by his acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Company, to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in aggregate principal amount of the Outstanding Securities of all series in respect of which such suit may be brought, considered as one class, or to any suit instituted by any Holder for the enforcement of the payment of the principal of or any premium or interest on any Security on or after the Stated Maturity or Maturities expressed in such Security (or, in the case of redemption, on or after the Redemption Date, or, in the case of repayment at the option of the Holder, on or after the Repayment Date).

Section 515. Waiver of Stay or Extension Laws. The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or

extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

ARTICLE SIX  
THE TRUSTEE

Section 601. Certain Duties and Responsibilities. (a) Except during the continuance of an Event of Default with respect to Securities of any series,

(1) the Trustee undertakes to perform, with respect to Securities of such series, such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(2) in the absence of bad faith on its part, the Trustee may, with respect to Securities of such series, conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture.

(b) If an Event of Default with respect to Securities of any series has occurred and is continuing, the Trustee shall exercise, with respect to Securities of such series, such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

(c) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, *except* that

(1) this subsection shall not be construed to limit the effect of sub-section (a) of this Section;

(2) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(3) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of a majority in aggregate principal amount of the Outstanding Securities of any one or more

series, as provided herein, relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture with respect to the Securities of such series; and

(4) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it has reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

(d) Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section.

Section 602. Notice of Defaults. Within 90 days after the occurrence of any default hereunder with respect to the Securities of any series, the Trustee shall transmit by mail to all Holders of Securities of such series entitled to receive reports pursuant to **Section 704(3)** (and, if Unregistered Securities of that series are outstanding, shall cause to be published at least once in an Authorized Newspaper in The City of New York and, if Securities of that series are listed on any stock exchange outside of the United States, in the city in which such stock exchange is located) notice of such default hereunder known to the Trustee, unless such default shall have been cured or waived; *provided, however*, that, except in the case of a default in the payment of the principal of or any premium or interest on any Security of such series or in the payment of any sinking fund installment with respect to Securities of such series, the Trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee or a trust committee of directors or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interest of the Holders of Securities of such series; and *provided, further*, that in the case of any default of the character specified in **Section 501(4)** with respect to Securities of such series, no such notice to Holders shall be given until at least 75 days after the occurrence thereof. For the purpose of this Section, the term “default” means any event that is, or after notice or lapse of time or both would become, an Event of Default with respect to Securities of such series.

Section 603. Certain Rights of Trustee. Subject to the provisions of **Section 601** and to the applicable provisions of the Trust Indenture Act:

(a) the Trustee may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document reasonably believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order, or as otherwise expressly provided herein, and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution;

(c) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, rely upon an Officer's Certificate or a certificate of an officer or officers delivered pursuant to **Section 301** and such Officer's Certificate or certificate of an officer or officers, in the absence of negligence or bad faith on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted by it under the provisions of this Indenture upon the faith thereof;

(d) the Trustee may consult with counsel and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(e) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities that might be incurred by it in compliance with such request or direction;

(f) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit; and

(g) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder.

Section 604. Not Responsible for Recitals or Issuance of Securities. The recitals contained herein and in the Securities, except the Trustee's certificate of authentication, shall be taken as the statements of the Company, and the Trustee or any Authenticating Agent assumes no responsibility for their correctness. The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities of any series or any coupons. The Trustee or any Authenticating Agent shall not be accountable for the use or application by the Company of Securities or the proceeds thereof. The Trustee shall not be responsible for and makes no representations as to the Company's ability or authority to issue the Unregistered Securities or the lawfulness thereof.

Section 605. May Hold Securities. The Trustee, any Authenticating Agent, any Paying Agent, any Security Registrar or any other agent of the Company or the Trustee, in its individual or any other capacity, may become the owner or pledgee of Securities and, subject to **Sections 608** and **613**, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Authenticating Agent, Paying Agent, Security Registrar or such other agent.

Section 606. Money Held in Trust. Money held by the Trustee or by any Paying Agent (other than the Company if the Company shall act as Paying Agent) in trust hereunder need not be segregated from other funds except to the extent required by law. Neither the Trustee nor any Paying Agent shall be liable for interest on any money received by it hereunder except as expressly provided herein or otherwise agreed with the Company.

Section 607. Compensation and Reimbursement. The Company agrees

(1) to pay to the Trustee from time to time reasonable compensation for all services rendered by it hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(2) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence, willful misconduct or bad faith; and

(3) to indemnify the Trustee for, and to hold it harmless against, any loss, liability or expense reasonably incurred without negligence, willful misconduct or bad faith on its part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder or performance of its duties hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

As security for the performance of the obligations of the Company under this Section, the Trustee shall have a claim prior to the Securities and any coupons upon all property and funds held or collected by the Trustee as such, except property and funds held in trust for the payment of principal of and any premium and interest on particular Securities or any coupons.

Section 608. Disqualification; Conflicting Interests. If the Trustee has or acquires any conflicting interest within the meaning of the Trust Indenture Act with respect to the Securities of any series, it shall either eliminate such conflicting interest or resign to the extent, in the manner and with the effect, and subject to the conditions, provided in the Trust Indenture Act and this Indenture. For purposes of Section 310(b)(1) of the Trust Indenture Act and to the extent permitted thereby, the Trustee, in its capacity as trustee in respect of the equally ranked and unsecured Securities of any series, shall not be deemed to have a conflicting interest arising from its capacity as trustee in respect of the equally ranked and unsecured Securities of any other series under this Indenture or any securities issued under the Indenture dated as of [1] between the Company and the Trustee [*specifically describe other outstanding indentures with the Trustee*].

Section 609. Corporate Trustee Required; Eligibility. There shall at all times be a Trustee hereunder that shall be a Person that is eligible pursuant to the Trust Indenture Act to act as such, having a combined capital and surplus of at least \$50,000,000, subject to supervision or examination by federal or state authority and qualified and eligible under this

Article, *provided* that, neither the Company nor any Affiliate of the Company or any obligor on the Securities may serve as Trustee of any Securities. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee ceases to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article.

Section 610. Resignation and Removal; Appointment of Successor. (a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of **Section 611**.

(b) The Trustee may resign at any time with respect to the Securities of one or more series by giving written notice thereof to the Company. If the instrument of acceptance by a successor Trustee required by **Section 611** has not been delivered to the Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

(c) The Company may at any time by a Board Resolution remove the Trustee with respect to the Securities of any or all series.

(d) The Trustee may be removed at any time with respect to the Securities of any series by Act of the Holders of a majority in aggregate principal amount of the Outstanding Securities of such series, delivered to the Trustee and to the Company.

(e) If at any time:

(1) the Trustee fails to comply with **Section 608** with respect to the Securities of any series, after written request therefor by the Company or by any Holder who has been a bona fide Holder of a Security of such series for at least six months, or

(2) the Trustee ceases to be eligible under **Section 609** and fails to resign after written request therefor by the Company or by any such Holder,  
or

(3) the Trustee becomes incapable of acting or becomes adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property is appointed or any public officer takes charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation,

then, in any such case, subject to **Section 514**, any Holder who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee with respect to all Securities and the appointment of a successor Trustee or Trustees.

(f) If the Trustee resigns, is removed or becomes incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause, with respect to the Securities of one or more series, the Company, by a Board Resolution, shall promptly appoint a successor Trustee or Trustees with respect to the Securities of that or those series (it being understood that any such successor Trustee may be appointed with respect to the Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Securities of any particular series) and shall comply with the applicable requirements of **Section 611**. If, within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee with respect to the Securities of any series is appointed by Act of the Holders of a majority in aggregate principal amount of the Outstanding Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment in accordance with the applicable requirements of **Section 611**, become the successor Trustee with respect to the Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Securities of any series has been so appointed by the Company or the Holders and accepted appointment in the manner required by **Section 611**, any Holder who has been a bona fide Holder of a Security of such series for at least six months may, subject to **Section 514**, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

(g) The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series by mailing written notice of such event by first-class mail, postage prepaid, to all Holders of Securities of such series entitled to receive reports pursuant to **Section 704(3)** and, if any Unregistered Securities are outstanding, by publishing notice of such event once in an Authorized Newspaper in The City of New York and, if any Unregistered Securities are listed on any stock exchange outside of the United States, in the city in which such stock exchange is located. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

(h) All provisions of this Section except subparagraph (d) and **Section 611(b)** (except for the last clause, after omitting the words “after deducting all amounts owed to the retiring Trustee pursuant to **Section 607**,” which shall apply) shall apply also to any Paying Agent located outside the United States and its possessions.

Section 611. Acceptance of Appointment by Successor. (a) In case of the appointment hereunder of a successor Trustee with respect to the Securities of all series, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder.

(b) In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and which (1) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (2) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (3) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or any successor Trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor Trustee, all property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

(c) Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

(d) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article.

Section 612. Merger, Conversion, Consolidation or Succession to Business. Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, *provided* such corporation shall be otherwise qualified and eligible under this Article, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities. In case any Securities shall not have been authenticated by such predecessor Trustee, any such successor Trustee may authenticate and deliver such Securities, in either its own name or that of its predecessor Trustee, with the full force and effect which this Indenture provides for the certificate of authentication of the Trustee.



Section 613. Preferential Collection of Claims Against Company. The Trustee shall comply with Trust Indenture Act § 311(a), excluding any creditor relationship listed in Trust Indenture Act § 311(b). A Trustee who has resigned or been removed shall be subject to Trust Indenture Act § 311(a) to the extent indicated therein.

Section 614. Appointment of Authenticating Agent. (a) At any time when any of the Securities remain Outstanding the Trustee may appoint an Authenticating Agent or Agents (which may include any Person that owns, directly or indirectly, all of the capital stock of the Trustee or a corporation that is a wholly-owned subsidiary of the Trustee or of such other Person) with respect to one or more series of Securities, or any Tranche thereof, that shall be authorized to act on behalf of the Trustee to authenticate Securities of such series or Tranche issued upon original issuance, exchange, registration of transfer or partial redemption thereof or pursuant to **Section 306**, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. If any Unregistered Securities are outstanding, the Trustee shall publish notice of such event once in an Authorized Newspaper in The City of New York and, if any Unregistered Securities are listed on any stock exchange outside of the United States, in the city in which such stock exchange is located. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a corporation organized and doing business under the laws of the United States of America, any state thereof or the District of Columbia, authorized under such laws to act as Authenticating Agent, having a combined capital and surplus of not less than \$50,000,000 and subject to supervision or examination by federal or state authority in the United States. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time an Authenticating Agent ceases to be eligible in accordance with the provisions of this Section, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section.

(b) Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, *provided* such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or any further act on the part of the Trustee or the Authenticating Agent.

(c) An Authenticating Agent may resign with respect to one or more series of Securities at any time by giving written notice thereof to the Trustee and to the Company. The

Trustee may at any time terminate the agency of an Authenticating Agent with respect to one or more series of Securities by giving written notice thereof to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent ceases to be eligible in accordance with the provisions of this Section, the Trustee may appoint a successor Authenticating Agent that is acceptable to the Company and shall provide notice of such appointment to all Holders of Securities of the series or Tranche with respect to which such Authenticating Agent will serve, as provided in paragraph (a) of this Section. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section. An Authenticating Agent appointed pursuant to this Section shall be entitled to rely on **Sections 111, 308, 604 and 605** hereunder.

(d) The Trustee agrees to pay to each Authenticating Agent from time to time reasonable compensation for its services under this Section, and the Trustee shall be entitled to be reimbursed for such payments, subject to the provisions of **Section 607**.

(e) If an appointment with respect to the Securities of one or more series, or any Tranche thereof, is made pursuant to this Section, the Securities of such series or Tranche may have endorsed thereon, in addition to the Trustee's certificate of authentication, an alternate certificate of authentication in the following form:

This is one of the Securities of the series designated pursuant to and issued under the within-mentioned Indenture.

[ \_\_\_\_\_ ]  
As Trustee

By \_\_\_\_\_  
As Authenticating Agent on behalf of the Trustee

By \_\_\_\_\_  
Authorized Officer of Authenticating Agent

Dated: \_\_\_\_\_

(f) If all of the Securities of a series may not be originally issued at one time, and if the Trustee does not have an office capable of authenticating Securities upon original issuance located in a Place of Payment where the Company wishes to have Securities of such series authenticated upon original issuance, the Trustee, if so requested by the Company in writing (which writing need not comply with **Section 102** and need not be accompanied by an Opinion of Counsel), shall appoint, in accordance with this Section and in accordance with such

procedures as shall be acceptable to the Trustee, an Authenticating Agent (which, if so requested by the Company, may be an Affiliate of the Company) having an office in a Place of Payment designated by the Company with respect to such series of Securities.

## ARTICLE SEVEN

### HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY

Section 701. Company to Furnish Trustee Names and Addresses of Holders. The Company will furnish or cause to be furnished to the Trustee

(a) semi-annually, not later than the 15th day after each Regular Record Date for each series of Registered Securities at the time Outstanding or on June 30 and December 31 of each year with respect to each series of Securities for which there are no Regular Record Dates, a list, in such form as the Trustee may reasonably require, containing all the information in the possession or control of the Company, or any of its Paying Agents other than the Trustee, of the names and addresses of the Holders of Registered Securities of such series, including Holders of interests in Global Securities, as of such preceding Regular Record Date or on June 15 or December 15, as the case may be, or, in the case of a series of non-interest bearing Securities, on a date to be determined as contemplated pursuant to **Section 301(b)**, and

(b) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished;

*excluding* from any such list names and addresses received by the Trustee in its capacity as Security Registrar for Registered Securities other than Global Securities.

Section 702. Preservation of Information; Communications to Holders. (a) The Trustee shall preserve, in as current a form as is reasonably practicable, the names and addresses of Holders of Registered Securities contained in the most recent list furnished to the Trustee as provided in **Section 701** and the names and addresses of Holders of Registered Securities received by the Trustee in its capacity as Security Registrar or Paying Agent. The Trustee may destroy any list furnished to it as provided in **Section 701** upon receipt of a new list so furnished.

(b) If three or more Holders (herein referred to as "applicants") apply in writing to the Trustee, and furnish to the Trustee reasonable proof that each such applicant has owned a Security for a period of at least six months preceding the date of such application, and such application states that the applicants desire to communicate with other Holders with respect to their rights under this Indenture or under the Securities and is accompanied by a copy of the form of proxy or other communication that such applicants propose to transmit, then the Trustee shall, within five business days after the receipt of such application, at its election, either

(i) afford such applicants access to the information preserved at the time by the Trustee in accordance with **Section 702(a)**, or

(ii) inform such applicants as to the approximate number of Holders whose names and addresses appear in the information preserved at the time by the Trustee in accordance with **Section 702(a)**, and as to the approximate cost of mailing to such Holders the form of proxy or other communication, if any, specified in such application.

If the Trustee elects not to afford such applicants access to such information, the Trustee shall, upon the written request of such applicants, mail to each Holder whose name and address appear in the information preserved at the time by the Trustee in accordance with **Section 702(a)** a copy of the form of proxy or other communication that is specified in such request, with reasonable promptness after a tender to the Trustee by the applicants of the material to be mailed and of payment, or provision for the payment, of the reasonable expenses of mailing, unless within five days after such tender the Trustee shall mail to such applicants and file with the Commission, together with a copy of the material to be mailed, a written statement to the effect that, in the opinion of the Trustee, such mailing would be contrary to the best interest of the Holders or would be in violation of applicable law. Such written statement shall specify the basis of such opinion. If the Commission, after opportunity for a hearing upon the objections specified in the written statement so filed, enters an order refusing to sustain any of such objections or if, after the entry of an order sustaining one or more of such objections, the Commission finds, after notice and opportunity for hearing, that all the objections so sustained have been met and enters an order so declaring, the Trustee shall mail copies of such material to all such Holders with reasonable promptness after the entry of such order and the renewal of such tender by such applicants; otherwise the Trustee shall be relieved of any obligation or duty to such applicants respecting their application.

(c) Every Holder of Securities or coupons, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company nor the Trustee nor any agent of either of them shall be held accountable by reason of the disclosure of any such information as to the names and addresses of the Holders in accordance with **Section 702(b)**, regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under **Section 702(b)**.

Section 703. Reports by Trustee. (a) Within 60 days after May 15 of each year commencing with the year 2006, the Trustee shall transmit by mail to all Holders of Registered Securities of any series, as their names and addresses appear in the Security Register and to all other Holders who are entitled to receive reports pursuant to **Section 704(3)**, a brief report dated as of such May 15 with respect to any of the following events which may have occurred within the previous 12 months (but if no such event has occurred within such period no report need be transmitted):

- (1) any change to its eligibility under **Section 609** and its qualifications under **Section 608**;
- (2) the creation of or any material change to a relationship specified in paragraphs (1) through (10) of Section 310(b) of the Trust Indenture Act;

(3) the character and amount of any advances (and if the Trustee elects so to state, the circumstances surrounding the making thereof) made by the Trustee (as such) which remain unpaid on the date of such report, and for the reimbursement of which it claims or may claim a lien or charge, prior to that of the Securities of such series or any related coupons, on any property or funds held or collected by it as Trustee, except that the Trustee shall not be required (but may elect) to report such advances if such advances so remaining unpaid aggregate not more than one-half of 1% of the principal amount of the Securities of such series Outstanding on the date of such report;

(4) the amount, interest rate and maturity date of all other indebtedness owing by the Company (or by any other obligor on the Securities of such series) to the Trustee in its individual capacity, on the date of such report, with a brief description of any property held as collateral security therefor, except an indebtedness based upon a creditor relationship arising in any manner described in paragraphs (2), (3), (4) or (6) of Section 311(b) of the Trust Indenture Act;

(5) any change to the property and funds, if any, physically in the possession of the Trustee as such on the date of such report;

(6) any additional issue of Securities which the Trustee has not previously reported; and

(7) any action taken by the Trustee in the performance of its duties hereunder which it has not previously reported and which in its opinion materially affects the Securities of such series, except action in respect of a default, notice of which has been or is to be withheld by the Trustee in accordance with **Section 602**.

(b) The Trustee shall transmit by mail to all Holders of Registered Securities of any series, as their names and addresses appear in the Security Register and to all Holders who are entitled to receive reports pursuant to **Section 704(3)**, a brief report with respect to the character and amount of any advances (and if the Trustee elects so to state, the circumstances surrounding the making thereof) made by the Trustee (as such) since the date of the last report transmitted pursuant to subsection (a) of this Section (or if no such report has yet been so transmitted, since the date of execution of this instrument) for the reimbursement of which it claims or may claim a lien or charge, prior to that of the Securities of such series, on property or funds held or collected by it as Trustee and which it has not previously reported pursuant to this subsection, except that the Trustee shall not be required (but may elect) to report such advances if such advances remaining unpaid at any time aggregate 10% or less of the principal amount of the Securities of such series Outstanding at such time, such report to be transmitted within 90 days after such time.

(c) A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange upon which any Securities are listed, with the Commission and with the Company. The Company will notify the Trustee in writing when any Securities are listed on any stock exchange.

Section 704. Reports by Company. The Company shall:

(1) file with the Trustee, within 45 days after the Company is required to file the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Commission may from time to time by rules and regulations prescribe) that the Company may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the U.S. Securities Exchange Act of 1934; or, if the Company is not required to file information, documents or reports pursuant to either of said Sections, then it shall file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such of the supplementary and periodic information, documents and reports that may be required pursuant to Section 13 of the U.S. Securities Exchange Act of 1934 in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in such rules and regulations;

(2) file with the Trustee and the Commission, in accordance with rules and regulations prescribed by the Commission, such additional information, documents and reports with respect to compliance by the Company with the conditions and covenants of this Indenture as may be required from time to time by such rules and regulations; and

(3) transmit by mail to all Holders of Registered Securities, as their names and addresses appear in the Security Register, to such Holders of Unregistered Securities as have, within the two years preceding such transmission, filed their names and addresses with the Trustee for that purpose and to each Holder whose name and address is then preserved on the Trustee's list pursuant to the first sentence of **Section 702(a)**, within 30 days after the filing thereof with the Trustee, such summaries of any information, documents and reports required to be filed by the Company pursuant to paragraphs (1) and (2) of this Section as may be required by rules and regulations prescribed from time to time by the Commission.

ARTICLE EIGHT

CONSOLIDATION, MERGER, CONVEYANCE OR TRANSFER

Section 801. Company May Consolidate, Etc. Only on Certain Terms. The Company shall not consolidate with or merge into any other corporation or convey, transfer or lease all or substantially all of its properties and assets to any Person, unless:

(1) the corporation formed by such consolidation or into which the Company is merged or the Person that acquires by conveyance, transfer or lease the properties and assets of the Company substantially as an entirety shall be a Person organized and existing under the laws of the United States of America, any State thereof or the District of Columbia and shall expressly assume, by an indenture supplemental hereto, executed and delivered to the Trustee, in form satisfactory to the Trustee, the due and punctual payment of the principal of and any premium and interest on all the Outstanding Securities and the performance of every covenant of this Indenture on the part of the Company to be performed or observed;

(2) immediately after giving effect to such transaction, no Event of Default and no event that, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing; and

(3) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, merger, conveyance, transfer or lease and such supplemental indenture comply with this Article and that all conditions precedent herein provided for relating to such transaction have been met.

Section 802. Successor Corporation Substituted. Upon any consolidation or merger or any conveyance, transfer or lease of all or substantially all the properties and assets of the Company in accordance with **Section 801**, the successor corporation formed by such consolidation or into which the Company is merged or to which such conveyance, transfer or lease is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor corporation had been named as the Company herein and thereafter, in the case of a conveyance, transfer or lease of properties and assets of the Company substantially as an entirety, such conveyance, transfer or lease shall have the effect of releasing the Person named as the "Company" in the first paragraph of this instrument or any successor corporation which shall theretofore have become such in the manner prescribed in this Article from its liability as obligor and maker on any of the Securities.

## ARTICLE NINE

### SUPPLEMENTAL INDENTURES

Section 901. Supplemental Indentures Without Consent of Holders. Without the consent of any Holders, the Company and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form satisfactory to the Trustee, for any of the following purposes:

(1) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company herein and in the Securities; or

(2) to add to the covenants of the Company for the benefit of the Holders of all or any series of Securities (and if such covenants are to be for the benefit of less than all series of Securities, stating that such covenants are expressly being included solely for the benefit of such series), or to surrender any right or power herein conferred upon the Company; or

(3) to add any additional Events of Default with respect to all or any series of Securities Outstanding hereunder; or

(4) to add to or change any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the issuance of Securities in bearer form, registrable or not registrable as to principal, and with or without interest coupons; or

(5) to change or eliminate any of the provisions of this Indenture, or to add any new provision to this Indenture, in respect of one or more series of Securities; *provided, however*, that any such change, elimination or addition (A) shall neither (i) apply to any Security Outstanding on the date of such indenture supplemental hereto nor (ii) modify the rights of the Holder of any such Security with respect to such provision in effect prior to the date of such indenture supplemental hereto or (B) shall become effective only when no Security of such series remains Outstanding; or

(6) to secure the Securities pursuant to the requirements of any covenant on liens in respect of such series of Securities or otherwise; or

(7) to establish for the issuance of and establish the form or terms and conditions of Securities of any series or Tranche thereof as permitted by **Section 301(b)**, and to establish the form of any certificates required to be furnished pursuant to the terms of this Indenture or any series of Securities; or

(8) to provide for uncertificated Securities in addition to or in place of all, or any series or Tranche of, certificated Securities; or

(9) to evidence and provide for the acceptance of appointment hereunder by a separate or successor Trustee or co-trustee with respect to the Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of **Section 611(b)**; or

(10) to change any place or places where (a) the principal of or premium, if any, or interest, if any, on all or any series of Securities, or any Tranche thereof, shall be payable, (b) all or any series of Securities, or any Tranche thereof, may be surrendered for registration or transfer, (c) all or any series of Securities, or any Tranche thereof, may be surrendered for exchange and (d) notices and demands to or upon the Company in respect of all or any series of Securities, or any Tranche thereof, and this Indenture may be served;

(11) to cure any ambiguity or to correct or supplement any provision herein that may be defective or inconsistent with any other provision herein, *provided* such action shall not adversely affect the interests of the Holders of Securities of any series or Tranche in any material respect; or

(12) to make any other provisions with respect to matters or questions arising under this Indenture, *provided* such action shall not adversely affect the interests of the Holders of any Securities of any series or Tranche Outstanding on the date of such indenture supplemental hereto.

Without limiting the generality of the foregoing, if the Trust Indenture Act as in effect at the date of the execution and delivery of this Indenture or at any time thereafter becomes amended and



(x) if any such amendment requires one or more changes to any provisions hereof or the inclusion herein of any additional provisions, or by operation of law is deemed to effect such changes or incorporate such provisions by reference or otherwise, this Indenture shall be deemed to have been amended so as to conform to such amendment to the Trust Indenture Act, and the Company and the Trustee may, without the consent of any Holders, enter into an indenture supplemental hereto to effect or evidence such changes or additional provisions; or

(y) if any such amendment permits one or more changes to, or the elimination of, any provisions hereof that, at the date hereof or at any time thereafter, are required by the Trust Indenture Act to be contained herein (or if it is no longer required by the Trust Indenture Act for the Indenture to contain one or more provisions), this Indenture shall be deemed to have been amended to effect such changes or elimination, and the Company and the Trustee may, without the consent of any Holders, enter into an indenture supplemental hereto to evidence such amendment hereof; or

(z) if, by reason of any such amendment, it shall be no longer necessary for this Indenture to contain one or more provisions that, at the date of the execution and delivery hereof, are required by the Trust Indenture Act to be contained herein, the Company and the Trustee may, without the consent of any Holders, enter into an indenture supplemental hereto to effect the elimination of such provisions.

Section 902. Supplemental Indentures With Consent of Holders. (a) Except as set forth in paragraph (c) below, with the consent of the Holders of not less than a majority in aggregate principal amount of the Senior Securities of all series then Outstanding (considered as one class), the Company, when authorized by a resolution of its Board of Directors (which resolution may provide general terms or parameters for such action and may provide that the specific terms of such action may be determined in accordance with or pursuant to a Company Order), and the Trustee may, from time to time and at any time, enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of any supplemental indenture or of modifying in any manner the rights of the Holders of the Securities of each such series or of the Coupons appertaining to such Securities or of modifying in any manner the rights of the Holders of Securities of such series under this Indenture; *provided, however,* that if there are Senior Securities of more than one series Outstanding hereunder and if a proposed supplemental indenture shall directly affect the rights of the Holders of Senior Securities of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Securities of all series so directly affected, considered as one class, shall be required.

(b) Except as set forth in paragraph (c) below, with the consent of the Holders of not less than a majority in aggregate principal amount of the Subordinated Securities of all series of equal ranking then Outstanding (considered as one class), the Company, when authorized by a resolution of its Board of Directors (which resolution may provide general terms or parameters for such action and may provide that the specific terms of such action may be determined in accordance with or pursuant to a Company Order), and the Trustee may, from time to time and at any time, enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of

this Indenture or of any supplemental indenture or of modifying in any manner the rights of the Holders of the Securities of each such series or of the Coupons appertaining to such Securities or of modifying in any manner the rights of the Holders of Securities of such series under this Indenture; *provided, however*, that if there are Subordinated Securities of more than one series of equal ranking Outstanding hereunder and if a proposed supplemental indenture shall directly affect the rights of the Holders of Subordinated Securities of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Securities of all series so directly affected, considered as one class, shall be required.

(c) No such supplemental indenture or waiver shall, without the consent of the Holder of each Outstanding Security affected thereby,

(1) change the Stated Maturity of the principal of, or any installment of principal of or interest on, any Security, or reduce the principal amount thereof or the rate of interest thereon (or the amount of any installment of interest thereon) or any premium payable upon the redemption thereof, or change the method of calculating the rate of interest thereon, or change any obligation to pay any Additional Amounts, or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to **Section 502**, or change the coin or currency (or other property) in which, any Security or any premium or the interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption, on or after the Redemption Date, or, in the case of repayment at the option of the Holders, on or after the Repayment Date), or modify any provisions of this Indenture with respect to the conversion or exchange of the Securities into Securities of another series or into any other debt or equity securities in a manner adverse to the Holders, or

(2) reduce the percentage in principal amount of the Outstanding Securities of any series, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences provided for in this Indenture, or

(3) modify any of the provisions of this Section, **Section 513** or **Section 1007**, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby, *provided, however*, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the references to “the Trustee” and concomitant changes in this Section and **Section 1007**, or the deletion of this proviso, in accordance with the requirements of **Sections 611(b)** and **901(9)**.

A supplemental indenture that changes or eliminates any covenant or other provision of this Indenture that has expressly been included solely for the benefit of one or more particular series of Securities, or that modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

It shall not be necessary for any Act of Holders under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof. A waiver by a Holder of such Holder's rights to consent under this Section shall be deemed to be a consent of such Holder.

Section 903. Execution of Supplemental Indentures. In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to **Section 601**) shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Section 904. Effect of Supplemental Indentures. Upon the execution of any supplemental indenture under this Article, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Securities theretofore or thereafter authenticated and delivered hereunder shall be bound thereby. Any supplemental indenture permitted by this Article may restate this Indenture in its entirety, and, upon the execution and delivery thereof, any such restatement shall supersede this Indenture as theretofore in effect for all purposes.

Section 905. Conformity With Trust Indenture Act. Every supplemental indenture executed pursuant to this Article shall conform to the requirements of the Trust Indenture Act as then in effect.

Section 906. Reference in Securities to Supplemental Indentures. Securities of any series, or any Tranche thereof, authenticated and delivered after the execution of any supplemental indenture pursuant to this Article may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company so determines, new Securities of any series, or any Tranche thereof, and any appertaining coupons so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities of such series or Tranche and any appertaining coupons.

Section 907. Revocation and Effect of Consents. Until an amendment or waiver becomes effective, a consent to it by a Holder of a Security is a continuing consent by the Holder and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security, even if notation of the consent is not made on any Security. However, any such Holder or subsequent Holder may revoke the consent as to his Security or portion of a Security if the Trustee receives the notice of revocation before the date on which the Trustee receives an Officer's Certificate certifying that the Holders of the requisite principal amount of Securities have consented to the amendment or waiver. After an amendment or waiver becomes effective, it shall bind every Holder of each series of Securities affected by such amendment or waiver.

The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Holders entitled to consent to any amendment or waiver. If a record date is fixed, then notwithstanding the provisions of the immediately preceding paragraph, those persons who were Holders at such record date (or their duly designated proxies), and only those persons, shall be entitled to consent to such amendment or waiver or to revoke any consent previously given, whether or not such persons continue to be Holders after such record date.

After an amendment or waiver becomes effective it shall bind every Holder, unless it is of the type described in any of clauses (1) through (3) of **Section 902(c)**. In such case, the amendment or waiver shall bind each Holder of a Security who has consented to it and every subsequent Holder of a Security that evidences the same debt as the consenting Holder's Security.

Section 908. Modification Without Supplemental Indenture. If the terms of any particular series of Securities have been established in a Board Resolution or an Officer's Certificate as contemplated by **Section 301**, and not in an indenture supplemental hereto, additions to, changes in or the elimination of any of such terms may be effected by means of a supplemental Board Resolution or Officer's Certificate, as the case may be, delivered to, and accepted by, the Trustee; *provided, however*, that such supplemental Board Resolution or Officer's Certificate shall not be accepted by the Trustee or otherwise be effective unless all conditions set forth in this Indenture that would be required to be satisfied if such additions, changes or elimination were contained in a supplemental indenture shall have been appropriately satisfied. Upon the acceptance thereof by the Trustee, any such supplemental Board Resolution or Officer's Certificate shall be deemed to be a "supplemental indenture" for purposes of **Sections 904** and **906**.

## ARTICLE TEN

### COVENANTS

Section 1001. Payment of Principal, Premium and Interest. (a) Subject to the following provisions, the Company will pay to the Trustee the amounts, in such coin or currency as is at the time legal tender for the payment of public or private debt, in the manner, at the times and for the purposes set forth herein and in the text of the Securities for each series, and the Company hereby authorizes and directs the Trustee from funds so paid to it to make or cause to be made payment of the principal of and any premium and interest on the Securities and coupons of each series as set forth herein and in the text of such Securities and coupons. Unless otherwise provided in the Securities of a series, the Trustee will arrange directly with any Paying Agents for the payment, or the Trustee will make payment, from funds furnished by the Company, of the principal of and any premium and interest, on the Securities and coupons of each series by check or draft.

(b) Unless otherwise provided in the Securities of a series, interest, if any, on Registered Securities of a series shall be paid by check or draft on each Interest Payment Date

for such series to the Holder thereof at the close of business on the Regular Record Date specified in the Securities of such series; *provided, however*, that interest payable at Maturity will be paid to the Person to whom principal is payable. The Company may pay such interest by check or draft mailed to such Holder's address as it appears on the register for Securities of such series. Unless otherwise provided in the Securities of a series, principal of Registered Securities shall be payable by check or draft and only against presentation and surrender of such Registered Securities at the office of the Paying Agent, unless the Company shall have otherwise instructed the Trustee in writing.

(c) Unless otherwise provided in the Securities of a series, (i) interest, if any, on Unregistered Securities shall be paid by check or draft and only against presentation and surrender of the coupons for such interest installments as are evidenced thereby as they mature and (ii) original issue discount (as defined in Section 1273 of the Code), if any, on Unregistered Securities shall be paid by check or draft and only against presentation and surrender of such Securities, in either case at the office of a Paying Agent located outside of the United States and its possessions, unless the Company has otherwise instructed the Trustee in an Officer's Certificate. Unless otherwise provided in the Securities of a series, principal of and premium, if any, of Unregistered Securities shall be paid by check or draft and only against presentation and surrender of such Securities as provided in the Securities of a series. If at the time a payment of principal of and premium, if any, or interest, if any, or original issue discount, if any, on an Unregistered Security or coupon becomes due and the payment of the full amount so payable at the office or offices of all the Paying Agents outside the United States and its possessions is illegal or effectively precluded because of the imposition of exchange controls or other similar restrictions on the payment of such amount in United States currency, then the Company may instruct the Trustee in an Officer's Certificate to make such payments at the office of a Paying Agent located in the United States. The Company hereby covenants and agrees that it shall not so instruct the Trustee with respect to payment in the United States if such payment would cause such Unregistered Security to be treated as a "registration-required obligation" under United States law and regulations.

(d) At the election of the Company, any payments by the Company provided for in this Indenture or in any of the Securities may be made by electronic funds transfer.

Section 1002. Maintenance of Office or Agency. (a) The Company will maintain in each Place of Payment for any series of Securities, or any Tranche thereof, an office or agency where Registered Securities, or any Tranche thereof, of that series may be surrendered for registration of transfer or exchange and a Place of Payment where (subject to **Sections 305 and 307**) Securities may be presented for payment or exchange and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. Unless otherwise specified pursuant to **Section 301(b)** with respect to any such series, the Company shall maintain such offices or agencies in connection with each series in the Borough of Manhattan, The City of New York, State of New York. With respect to any series of Securities issued in whole or in part as Unregistered Securities, the Company shall maintain one or more Paying Agents located outside the United States and its possessions and shall maintain such Paying Agents for a period of one year after the principal of such Unregistered Securities has become due and payable. During any period thereafter for which it is necessary in order to conform to United States tax law or regulations, the Company will maintain a Paying Agent

outside the United States and its possessions to which the Unregistered Securities or coupons appertaining thereto may be presented for payment and will provide the necessary funds therefor to such Paying Agent upon reasonable notice. The Security Registrar shall keep a register with respect to each series of Securities issued in whole or in part as Registered Securities and to their transfer and exchange. The Company may appoint one or more co-Security Registrars acceptable to the Trustee and one or more additional Paying Agents for each series of Securities, and the Company may terminate the appointment of any co-Security Registrar or Paying Agent at any time upon written notice. The term "Security Registrar" includes any co-Security Registrar. The term "Paying Agent" includes any additional Paying Agent. The Company shall notify the Trustee of the name and address of any Agent not a party to this Indenture. Subject to **Section 305**, if the Company fails to maintain a Security Registrar or Paying Agent, the Trustee shall act as such. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Company fails to maintain any such required office or agency or fails to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, surrenders, notices and demands.

(b) The Company may also from time to time designate one or more other offices or agencies where the Securities of one or more series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; *provided, however*, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in each Place of Payment for Securities of any series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

(c) In the case of Original Issue Discount Securities of a series, the Company shall, prior to any Redemption Date or any Repayment Date applicable thereto, furnish the Trustee with an Officer's Certificate stating the amount of principal to be paid to a Holder of \$1,000 principal amount of such Securities.

(d) Anything herein to the contrary notwithstanding, any office or agency required by this Section may be maintained at any office of the Company in which event the Company shall perform all functions to be performed at such office or agency.

Section 1003. Money for Securities Payments to Be Held in Trust. (a) If the Company at any time acts as its own Paying Agent with respect to any series of Securities, or any Tranche thereof, it will, on or before each due date of the principal of or any premium or interest on any of such Securities, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal (and premium, if any) or interest so becoming due until such sums are paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of its action or failure so to act.

(b) Whenever the Company has one or more Paying Agents for any series of Securities, it will, on or prior to (and if on, then before 11:00 a.m. (New York City time)) each due date of the principal of and any premium or interest on such Securities, deposit with a Paying Agent a sum sufficient (in immediately available funds, if payment is made on the due date) to

pay the principal and any premium and interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest as provided in the Trust Indenture Act and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

(c) The Company will cause each Paying Agent for any series of Securities, or any Tranche thereof, other than the Trustee, to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent will:

(i) comply with the provisions of the Trust Indenture Act applicable to it as a Paying Agent and

(ii) during the continuance of any default by the Company (or any other obligor upon the Securities of that series) in the making of any payment in respect of the Securities of that series, upon the written request of the Trustee, forthwith pay to the Trustee all sums held in trust by such Paying Agent for payment in respect of the Securities of that series

(d) The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

(e) Any money deposited with the Trustee or any Paying Agent, or received by the Trustee in respect of Eligible Obligations deposited with the Trustee pursuant to **Section 401** or **404**, or then held by the Company, in trust for the payment of the principal of and any premium or interest on any Security of any series and remaining unclaimed for two years (or such shorter period for the return of such funds to the Company under applicable abandoned property laws) after such principal, premium or interest has become due and payable shall be paid to the Company on Company Request, or (if then held by the Company) shall be discharged from such trust; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease.

Section 1004. Statement by Officers as to Default. The Company will deliver to the Trustee, within 120 days after the end of each fiscal year of the Company ending after the date hereof, a written statement, which need not comply with **Section 102**, signed by the principal executive officer, the principal financial officer or the principal accounting officer of the Company stating, as to each signer thereof stating whether or not to the best knowledge of the signers thereof it is in default in the performance and observance of any of the terms, provisions, and conditions of this Indenture (without regard to any period of grace or requirement of notice provided hereunder) and, if it is in default, specifying all such defaults and the nature and status thereof of which they may have knowledge.

Section 1005. Corporate Existence. Subject to **Article Eight**, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence, rights (charter and statutory) and franchises; *provided, however*, that the Company shall not be required to preserve any such right or franchise if, in the judgment of the Company, the preservation thereof is no longer desirable in the conduct of the business of the Company.

Section 1006. Payment of Taxes and Other Claims. The Company will pay or discharge or cause to be paid or discharged, before the same shall become delinquent, (1) all taxes, assessments and governmental charges levied or imposed upon it or upon the income, profits or property of it, and (2) all lawful claims for labor, materials and supplies which, if unpaid, might by law become a lien upon the property of the Company; *provided, however*, that the Company shall not be required to pay or discharge or cause to be paid or discharged any such tax, assessment, charge or claim whose amount, applicability or validity is being contested in good faith.

Section 1007. Waiver of Certain Covenants. (a) The Company may omit in any particular instance to comply with any term, provision or condition set forth in (i) any additional covenants or restrictions specified with respect to the Senior Securities of any series as contemplated by **Section 301** if before the time for such compliance the Holders of not less than a majority in aggregate principal amount (or such larger proportion as may be required in respect of waiving a past default of any such additional covenant or restriction) of the Outstanding Securities of all series with respect to which such covenant or restriction was so specified, considered as one class, by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition and (ii) **Sections 1002, 1004, 1006, 1008, 1009, 1010 and 1011** and **Article Eight** if before the time for such compliance the Holders of at least a majority in principal amount of Senior Securities Outstanding under this Indenture by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition; but, in the case of (i) or (ii) of this paragraph (a), no such waiver shall extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver becomes effective, the obligations of the Company and the duties of the Trustee in respect of any such term, provision or condition shall remain in full force and effect.

(b) The Company may omit in any particular instance to comply with any term, provision or condition set forth in (i) any additional covenants or restrictions specified with respect to the Subordinated Securities of any series, as contemplated by **Section 301(b)** if before the time for such compliance the Holders of not less than a majority in aggregate principal amount (or such larger proportion as may be required in respect of waiving a past default of any such additional covenant or restriction) of the Outstanding Securities of all series of equal ranking with respect to which such covenant or restriction was so specified, considered as one class, by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition and (ii) **Sections 1002, 1004, 1006, 1008,**



**1009, 1010, 1011 and Article Eight** if before the time for such compliance the Holders of at least a majority in principal amount of Subordinated Securities Outstanding under this Indenture by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition; but, in the case of (i) or (ii) of this paragraph (b), no such waiver shall extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver becomes effective, the obligations of the Company and the duties of the Trustee in respect of any such term, provision or condition shall remain in full force and effect.

Section 1008. Maintenance of Properties. The Company shall cause (or, with respect to property owned in common with others, make reasonable effort to cause) all its properties used or useful in the conduct of its business to be maintained and kept in good condition, repair and working order and shall cause (or, with respect to property owned in common with others, make reasonable effort to cause) to be made all necessary repairs, renewals, replacements, betterments and improvements thereof, all as, in the judgment of the Company, may be necessary so that the business carried on in connection therewith may be properly conducted; *provided, however*, that nothing in this Section shall prevent the Company from discontinuing, or causing the discontinuance of, the operation and maintenance of any of its properties if, in the judgment of the Company, such discontinuance (i) is desirable in the conduct of its business and (ii) will not adversely affect the interests of the Holders of Securities of any series in any material respect.

## ARTICLE ELEVEN

### REDEMPTION OF SECURITIES

Section 1101. Applicability of Article. Securities of any series that are redeemable before their Stated Maturity (or, if the principal of the Securities of any series is payable in installments, the Stated Maturity of the final installment of the principal thereof) shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by **Section 301(b)** for Securities of any series) in accordance with this Article.

Section 1102. Election to Redeem; Notice to Trustee. The election of the Company to redeem any Securities shall be evidenced by a Board Resolution or an Officer's Certificate. In case of any redemption at the election of the Company of less than all the Securities of any series, the Company shall, at least 45 days prior to the Redemption Date fixed by the Company (unless a shorter notice is satisfactory to the Trustee in its sole discretion), notify the Trustee of such Redemption Date and of the principal amount of Securities of such series to be redeemed. In the case of any redemption of Securities (a) prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, or (b) pursuant to an election of the Company that is subject to a condition specified in the terms of such Securities the Company shall furnish the Trustee with an Officer's Certificate evidencing compliance with such restriction.

Section 1103. Selection by Trustee of Securities to Be Redeemed. If less than all the Securities of any series are to be redeemed, the particular Securities to be redeemed shall be selected by the Trustee not more than 45 days prior to the Redemption Date, from the

Outstanding Securities of such series not previously called for redemption, by such method as is provided for any particular series, or, in the absence of any such provision, by such method as the Trustee deems fair and appropriate and which may provide for the selection for redemption of portions (equal to the minimum authorized denomination for Securities of that series or any integral multiple thereof) of the principal amount of Securities of such series of a denomination larger than the minimum authorized denomination for Securities of that series; *provided, however*, that if, as indicated in an Officer's Certificate, the Company has offered to purchase all or any principal amount of the Securities then Outstanding of any series, and less than all of such Securities as to which such offer was made have been tendered to the Company for such purchase, the Trustee, if so directed by Company Order, shall select for redemption all or any principal amount of such Securities that have not been so tendered.

The Trustee shall promptly notify the Company and the Security Registrar in writing of the Securities selected for redemption and, in the case of any Securities selected for partial redemption, the principal amount thereof to be redeemed.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Securities redeemed or to be redeemed only in part, to the portion of the principal amount of such Securities that has been or is to be redeemed.

Section 1104. Notice of Redemption. Unless otherwise specified as contemplated by **Section 301** with respect to any series of Securities, notice of redemption shall be given by first-class mail, postage prepaid, mailed not less than 30 nor more than 60 days prior to the Redemption Date, to each Holder of Securities to be redeemed, at his address appearing in the Security Register.

If Unregistered Securities are to be redeemed, notice of redemption shall be published in an Authorized Newspaper in The City of New York and, if such Securities to be redeemed are listed on any stock exchange outside of the United States, in the city in which such stock exchange is located, or in such other city or cities as may be specified in the Securities, once in each of two different calendar weeks, the first publication to be not less than 30 nor more than 90 days before the redemption date.

All notices of redemption shall state:

(1) the Redemption Date,

(2) the Redemption Price, or the formula pursuant to which the Redemption Price is to be determined if the Redemption Price cannot be determined at the time notice is given,

(3) if less than all the Outstanding Securities of any series are to be redeemed, the identification (and, in the case of partial redemption, the principal amounts) of the particular Securities to be redeemed, and the portion of the principal amount of any Security to be redeemed in part and, in the case of any such Security of such series to be redeemed in part, that, on and after the Redemption Date, upon surrender of such Security, a new Security or Securities of such series in principal amount equal to the remaining unpaid principal amount thereof will be issued as provided in **Section 1106**,

(4) that on the Redemption Date the Redemption Price will become due and payable upon each such Security to be redeemed and, if applicable, that interest thereon will cease to accrue on and after said date,

(5) the place or places where such Securities and all unmatured coupons are to be surrendered for payment of the Redemption Price and accrued interest, if any,

(6) that the redemption is for a sinking fund, if such is the case,

(7) the CUSIP numbers, if any, assigned to such Securities; *provided however*, that such notice may state that no representation is made as to the correctness of CUSIP numbers, and the redemption of such Securities shall not be affected by any defect in or omission of such number, and

(8) such other matters as the Company shall deem desirable or appropriate.

Unless otherwise specified with respect to any Securities in accordance with **Section 301**, with respect to any notice of redemption of Securities at the election of the Company, unless, upon the giving of such notice, such Securities are deemed to have been paid in accordance with **Section 401**, such notice may state that such redemption shall be conditional upon the receipt by the Paying Agent or Agents for such Securities, on or prior to the date fixed for such redemption, of money sufficient to pay the principal of and premium, if any, and interest, if any, on such Securities and that if such money has not been so received such notice shall be of no force or effect and the Company shall not be required to redeem such Securities. In the event that such notice of redemption contains such a condition and such money is not so received, the redemption shall not be made and within a reasonable time thereafter notice shall be given, in the manner in which the notice of redemption was given, that such money was not so received and such redemption was not required to be made, and the Paying Agent or Agents for the Securities otherwise to have been redeemed shall promptly return to the Holders thereof any of such Securities that had been surrendered for payment upon such redemption.

Notice of redemption of Securities to be redeemed at the election of the Company, and any notice of non-satisfaction of a condition for redemption as aforesaid, shall be given by the Company or, at the Company's request, by the Security Registrar in the name and at the expense of the Company. Notice of mandatory redemption of Securities shall be given by the Security Registrar in the name and at the expense of the Company.

Section 1105. Securities Payable on Redemption Date. (a) Notice of redemption having been given as aforesaid, and the conditions, if any, set forth in such notice having been satisfied, the Securities or portions thereof so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the Company defaults in the payment of the Redemption Price and accrued interest, if any) such Securities, or portions thereof, if interest-bearing, shall cease to bear interest. Upon surrender of any such Security together with all unmatured coupons for redemption in accordance with said notice, such Security or portion thereof, if any, shall be paid

by the Company at the Redemption Price, together with accrued interest, if any, to the Redemption Date but in the case of Unregistered Securities installments of interest due on or prior to the Redemption Date will be payable to the bearers of the coupons for such interest by check or draft upon surrender of such coupons; *provided, however*, that installments of interest whose Stated Maturity is on or prior to the Redemption Date shall be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant Regular Record Dates according to their terms and the provisions of **Section 307**.

(b) If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal and any premium shall, until paid, bear interest from the Redemption Date at the rate prescribed therefor in the Security.

Section 1106. Securities Redeemed in Part. Any Security that is to be redeemed only in part shall be surrendered at a Place of Payment therefor (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or his or her attorney duly authorized in writing), and the Company shall execute, and the Trustee shall authenticate and deliver to the Holder of such Security without service charge, a new Security or Securities of the same series, of any authorized denomination as requested by such Holder, and of like tenor and in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Security so surrendered.

## ARTICLE TWELVE

### SINKING FUNDS

Section 1201. Applicability of Article. The provisions of this Article shall be applicable to any sinking fund for the retirement of Securities of any series, except as otherwise specified as contemplated by **Section 301** for Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a “*mandatory sinking fund payment*”, and any payment in excess of such minimum amount provided for by the terms of Securities of any series is herein referred to as an “*optional sinking fund payment*”. If provided for by the terms of Securities of any series, the cash amount of any sinking fund payment may be subject to reduction as provided in **Section 1202**. Each sinking fund payment shall be applied to the redemption of Securities of the series in respect of which it was made as provided for by the terms of Securities of such series.

Section 1202. Satisfaction of Sinking Fund Payments With Securities. The Company (1) may deliver Outstanding Securities of a series (other than any previously called for redemption) together, in the case of Unregistered Securities, with all unmatured coupons appertaining thereto, in respect of which a mandatory sinking fund payment is to be made and (2) may apply as a credit Securities of such series that have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to the

Securities of such series required to be made pursuant to the terms of such Securities as provided for by the terms of such series, *provided* that such Securities have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the Redemption Price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

Section 1203. Redemption of Securities for Sinking Fund. Not less than 45 days prior to each sinking fund payment date for any series of Securities, the Company shall deliver to the Trustee an Officer's Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of that series, the portion thereof, if any, that is to be satisfied by payment of cash and the portion thereof, if any, that is to be satisfied by delivering and crediting Securities of that series pursuant to **Section 1202** and will also deliver to the Trustee any Securities to be so delivered. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in **Section 1103** and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in **Section 1104**. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in **Sections 1105** and **1106**.

#### ARTICLE THIRTEEN

##### REPAYMENT OF SECURITIES AT OPTION OF HOLDERS

Section 1301. Applicability of Article. Securities of any series that are repayable before their Stated Maturity at the option of the Holders shall be repayable in accordance with their terms and (except as otherwise specified as contemplated by **Section 301** for Securities of any series) in accordance with this Article.

Section 1302. Notice of Repayment Date. Notice of any Repayment Date with respect to Securities of any series shall be given by the Company not less than 45 nor more than 60 days prior to such Repayment Date (or at such other times as may be specified for such repayment or repurchase pursuant to **Section 301**) to each Holder of Securities of such series in accordance with **Section 106**.

The notice as to the Repayment Date shall state (unless otherwise specified for such repayment or repurchase pursuant to **Section 301**):

- (1) the Repayment Date, which date shall be no earlier than 30 days and no later than 60 days from the date on which such notice is mailed;
- (2) the principal amount of the Securities required to be repaid or repurchased and the Repayment Price (or the formula pursuant to which the Repayment Price is to be determined if the Repayment Price cannot be determined at the time the notice is given);
- (3) the place or places where such Securities are to be surrendered for payment of the Repayment Price, and accrued interest, if any, and the date by which Securities must be so surrendered in order to be repaid or repurchased;

(4) that any Security not tendered or accepted for payment shall continue to accrue interest;

(5) that, unless the Company defaults in making such payment or the Paying Agent is prohibited from paying such money to the Holders on that date pursuant to the terms of this Indenture, Securities accepted for payment pursuant to any such offer of repayment or repurchase shall cease to accrue interest after the Repayment Date;

(6) that Holders electing to have a Security repaid or purchased pursuant to such offer may elect to have all or any portion of such Security purchased;

(7) that Holders electing to have a Security repaid or repurchased pursuant to any such offer shall be required to surrender the Security, with such customary documents of surrender and transfer as the Company may reasonably request, duly completed, or transfer by book-entry transfer, to the Company or the Paying Agent at the address specified in the notice at least two Business Days prior to the Repayment Date;

(8) that Holders shall be entitled to withdraw their election if the Company or the Paying Agent, as the case may be, receives, not later than the expiration of the offer to repay or repurchase, a telegram, facsimile transmission or letter setting forth the name of the Holder, the principal amount of the Security the Holder delivered for purchase and a statement that such Holder is withdrawing its election to have such Security purchased;

(9) that, in the case of a repayment or repurchase of less than all Outstanding Securities of a series, the method of selection of Securities to be repaid or repurchased to be applied by the Trustee if the principal amount of properly tendered Securities exceeds the principal amount of the Securities to be repaid or repurchased;

(10) that Holders whose Securities are purchased only in part shall be issued new Securities of the same series equal in principal amount to the unpurchased portion of the Securities surrendered (or transferred by book-entry transfer); and

(11) the CUSIP or other identification number, if any, printed on the Securities being repurchased and that no representation is made as to the correctness or accuracy of the CUSIP or other identification number, if any, listed in such notice or printed on the Securities.

Section 1303. Securities Payable on Repayment Date. The form of option to elect repurchase or repayment having been delivered as specified in the form of Security for such series, the Securities of such series so to be repaid (after application of the method of selection described pursuant to clause (9) of **Section 1402**, if the principal amount of properly tendered Securities exceeds the principal amount of the Securities to be repaid or repurchased) shall, on the Repayment Date, become due and payable at the Repayment Price applicable thereto and from and after such date (unless the Company defaults in the payment of the Repayment Price and accrued interest) such Securities shall cease to bear interest. Upon surrender of any such Security for repayment in accordance with said notice, such Security shall be paid by the Company at the Repayment Price together with accrued interest, if any, to the Repayment Date; *provided, however*, that if a Security is repaid or repurchased on or after a

Regular Record Date but on or prior to the Stated Maturity of any installments of interest, then any accrued and unpaid interest due on such Stated Maturity shall be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant Regular Record Dates according to their terms and the provisions of **Section 307**.

If any Security is not paid upon surrender thereof for repayment, the principal (and premium, if any) shall, until paid, bear interest from the Repayment Date at the rate prescribed therefor in such Security.

Section 1304. Securities Repaid in Part. Any Security that by its terms may be repaid in part at the option of the Holder and that is to be repaid only in part shall be surrendered at any office or agency of the Company designated for that purpose pursuant to **Section 1002** (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or his or her attorney duly authorized in writing), and the Company shall execute, and the Trustee shall authenticate and deliver to the Holder of such Security without service charge, a new Security or Securities of the same series, as provided in **Section 305**, of any authorized denomination as requested by such Holder, in aggregate principal amount equal to and in exchange for the unrepaid portion of the principal of the Security so surrendered.

#### ARTICLE FOURTEEN

##### SUBORDINATION

###### Section 1401. Agreement to Subordinate Certain Securities.

The Company agrees, and each Holder by accepting a Subordinated Security agrees, that the Indebtedness evidenced by any Subordinated Security is subordinated in right of payment, to the extent and in the manner provided in this **Article 14**, to the prior payment in full in cash of all Senior Debt (whether outstanding on the date hereof or hereafter created, incurred, assumed or guaranteed), and that the subordination is for the benefit of the holders of Senior Debt.

###### Section 1402. Liquidation; Dissolution; Bankruptcy.

Upon any distribution to creditors of the Company in a liquidation or dissolution of the Company or in a bankruptcy, reorganization, insolvency, receivership or similar proceeding relating to the Company or its property, in an assignment for the benefit of creditors or any marshaling of the Company's assets and liabilities:

(i) holders of Senior Debt shall be entitled to receive payment in full in cash of all Obligations due in respect of such Senior Debt before Holders of the Subordinated Securities shall be entitled to receive any payment with respect to the Subordinated Securities (except that Holders may receive (A) Permitted Junior Securities and (B) payments and other distributions made from any defeasance trust created pursuant to **Article Four** hereof); and

(ii) until all Obligations with respect to Senior Debt (as provided in clause (i) above) are paid in full in cash, any distribution to which Holders would be entitled but for this **Article 14** shall be made to holders of Senior Debt (except that Holders of Subordinated Securities may receive (A) Permitted Junior Securities and (B) payments and other distributions made from any defeasance trust created pursuant to **Article Four** hereof), as their interests may appear.

Section 1403. Default on Designated Senior Debt.

(a) The Company may not make any payment or distribution to the Trustee or any Holder in respect of Obligations with respect to the Subordinated Securities and may not acquire from the Trustee or any Holder any Subordinated Securities for cash or property (other than (A) Permitted Junior Securities and (B) payments and other distributions made from any defeasance trust created pursuant to **Article Four** hereof) until all principal and other Obligations with respect to the Senior Debt have been paid in full in cash if:

- (i) a default in the payment of any principal or other Obligations with respect to Designated Senior Debt occurs; or
  - (ii) a default, other than a payment default, on Designated Senior Debt occurs and is continuing that then permits holders of the Designated Senior Debt to accelerate its maturity and the Trustee receives a notice of the default (a "Payment Blockage Notice") from the holder or holders of such Designated Senior Debt or the trustee, agent or Representative acting on behalf of such Designated Senior Debt. If the Trustee receives any such Payment Blockage Notice, no subsequent Payment Blockage Notice shall be effective for purposes of this Section unless and until (A) at least 360 days shall have elapsed since the effectiveness of the immediately prior Payment Blockage Notice and (B) all scheduled payments of principal, premium and interest on the Subordinated Securities that have come due have been paid in full in cash. No nonpayment default that existed or was continuing on the date of delivery of any Payment Blockage Notice to the Trustee shall be, or be made, the basis for a subsequent Payment Blockage Notice, unless such default has been cured or waived for a period of not less than 90 days.
- (b) The Company may and shall resume payments on and distributions in respect of the Subordinated Securities:
- (i) in the case of a default referred to in clause (i) of paragraph (a) above, the date upon which the default is cured or waived;
  - (ii) in the case of a default referred to in clause (ii) of paragraph (a) above, upon the earlier of the date on which such nonpayment default is cured or waived or 179 days after the date on which the applicable Payment Blockage Notice is received, unless the maturity of any Designated Senior Debt has been accelerated; and
  - (iii) in either case, upon the earlier of the payment in full of the obligations outstanding under and the satisfaction and discharge or defeasance of Designated Senior Debt,



if this **Article 14** otherwise permits the payment, distribution or acquisition at the time of such payment or acquisition.

Section 1404. Acceleration of Subordinated Securities.

If payment of any Subordinated Securities is accelerated because of an Event of Default, the Company and the Trustee shall promptly notify holders of Designated Senior Debt of the acceleration.

Section 1405. When Distribution Must Be Paid Over.

In the event that the Trustee or any Holder receives any payment of any Obligations with respect to the Subordinated Securities (other than Permitted Junior Securities) at a time when the Trustee or such Holder, as applicable, has actual knowledge that such payment is prohibited by **Section 1403** hereof, such payment shall be held by the Trustee or such Holder, in trust for the benefit of, and shall be paid forthwith over and delivered, upon written request, to, the holders of Senior Debt as their interests may appear or their Representative under the indenture or other agreement (if any) pursuant to which Senior Debt may have been issued, as their respective interests may appear, for application to the payment of all Obligations with respect to Senior Debt remaining unpaid to the extent necessary to pay such Obligations in full in accordance with their terms, after giving effect to any concurrent payment or distribution to or for the holders of Senior Debt.

With respect to the holders of Senior Debt, the Trustee undertakes to perform only such obligations on the part of the Trustee as are specifically set forth in this **Article 14**, and no implied covenants or obligations with respect to the holders of Senior Debt shall be read into this Indenture against the Trustee. The Trustee shall not be deemed to owe any fiduciary duty to the holders of Senior Debt, and shall not be liable to any such holders if the Trustee shall pay over or distribute to or on behalf of Holders or the Company or any other Person money or assets to which any holders of Senior Debt shall be entitled by virtue of this **Article 14**, except if such payment is made as a result of the willful misconduct or gross negligence of the Trustee.

Section 1406. Notice by Company.

The Company shall promptly notify the Trustee and the Paying Agent of any facts known to the Company that would cause a payment of any Obligations with respect to the Subordinated Securities to violate this **Article 14**, but failure to give such notice shall not affect the subordination of the Subordinated Securities to the Senior Debt as provided in this **Article 14**.

Section 1407. Subrogation.

After all Senior Debt is paid in full and until the Subordinated Securities are paid in full, Holders of Subordinated Securities shall be subrogated (equally and ratably with all other Indebtedness *pari passu* with the Subordinated Securities) to the rights of holders of Senior Debt to receive distributions applicable to Senior Debt to the extent that distributions otherwise payable to the Holders of Subordinated Securities have been applied to the payment of Senior Debt. A distribution made under this **Article 14** to holders of Senior Debt that otherwise would have been made to Holders of Subordinated Securities except for the provisions of this **Article**

**14**, and a payment over pursuant to this **Article 14** to the holders of Senior Debt by Holders or the Trustee on their behalf pursuant to this **Article 14**, shall not, as between the Company and Holders, be deemed a payment by the Company on or on account of the Subordinated Securities.

Section 1408. Relative Rights.

This **Article 14** defines the relative rights of Holders of Subordinated Securities and holders of Senior Debt. Nothing in this Indenture shall:

- (i) impair, as between the Company and Holders of Subordinated Securities, the obligation of the Company, which is absolute and unconditional, to pay principal of, and any premium and interest on, the Subordinated Securities in accordance with their terms;
- (ii) affect the relative rights of Holders of Subordinated Securities and creditors of the Company other than their rights in relation to holders of Senior Debt; or
- (iii) prevent the Trustee or any Holder of Subordinated Securities from exercising its available remedies upon a Default or Event of Default, subject to the rights of holders and owners of Senior Debt to receive distributions and payments otherwise payable to Holders of Subordinated Securities.

If the Company fails, because of this **Article 14**, to pay principal of or interest on a Subordinated Security on the due date, the failure is still a Default or Event of Default.

Section 1409. Subordination May Not Be Impaired by Company.

No right of any holder of Senior Debt to enforce the subordination of the Indebtedness evidenced by the Subordinated Securities shall be impaired by any act or failure to act by the Company or any Holder or by the failure of the Company or any Holder to comply with this Indenture.

Section 1410. Distribution or Notice to Representative.

Whenever a distribution is to be made or a notice given to holders of Senior Debt, the distribution may be made and the notice given to their Representative.

Upon any payment or distribution of assets of the Company referred to in this **Article 14**, the Trustee and the Holders of Subordinated Securities shall be entitled to rely upon any order or decree made by any court of competent jurisdiction or upon any certificate of such Representative or of the liquidating trustee or agent or other Person making any distribution to the Trustee or to the Holders of Subordinated Securities for the purpose of ascertaining the Persons entitled to participate in such distribution, the holders of the Senior Debt and other Indebtedness of the Company, the amount thereof or payable thereon, the amount or amounts paid or distributed thereon and all other facts pertinent thereto or to this **Article 14**.

Section 1411. Rights of Trustee and Paying Agent.

Notwithstanding the provisions of this **Article 14** or any other provision of this Indenture, the Trustee shall not be charged with knowledge of the existence of any facts that would prohibit the making of any payment or distribution by the Trustee, and the Trustee and the Paying Agent may continue to make payments on the Subordinated Securities, unless the Trustee shall have received at its Corporate Trust Office at least five Business Days prior to the date of such payment written notice of facts that would cause the payment of any Obligations with respect to the Subordinated Securities to violate this **Article 14**. Only a Representative may give the notice. Nothing in this **Article 14** shall impair the claims of, or payments to, the Trustee under or pursuant to **Section 607** hereof.

The Trustee in its individual or any other capacity may hold Senior Debt with the same rights it would have if it were not Trustee. Any Agent may do the same with like rights.

Section 1412. Authorization to Effect Subordination.

Each Holder of Subordinated Securities, by the Holder's acceptance thereof, authorizes and directs the Trustee on such Holder's behalf to take such action as may be necessary or appropriate to effectuate the subordination as provided in this **Article 14**, and appoints the Trustee to act as such Holder's attorney-in-fact for any and all such purposes. If the Trustee does not file a proper proof of claim or proof of debt in the form required in any proceeding referred to in **Section 504** hereof at least 30 days before the expiration of the time to file such claim, the Representatives are hereby authorized to file an appropriate claim for and on behalf of the Holders of the Subordinated Securities.

Section 1413. Amendments.

The provisions of this **Article 14** shall not be amended or modified without the written consent of the holders of a majority in aggregate principal amount of the Senior Debt.

This instrument may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, and their respective corporate seals to be hereunto affixed and attested, all as of the date first above written.

[CORPORATE SEAL]

MediciNova, Inc.

By \_\_\_\_\_  
Name:  
Title:

Attest:

\_\_\_\_\_

Secretary

[TRUSTEE]

By \_\_\_\_\_  
Vice President

STATE OF [ ] )  
 ) ss:  
CITY OF [ ] AND COUNTY OF [ ] )

On the \_\_\_\_\_ day of 1, 2006, before me personally came \_\_\_\_\_, to me known, who, being by me duly sworn, did depose and say that he is Secretary of MediciNova, Inc., one of the corporations described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instruments is such corporate seal; that it was so affixed by authority of the By-Laws of said corporation, and that he signed his name thereto by authority of the Board of Directors of said corporation.

**MediciNova, Inc.**  
**Reconciliation and tie between Trust Indenture Act of 1939 and**  
**Indenture, dated as of 1, 2006**

<u>Trust Indenture</u> <u>Act Section</u>	<u>Indenture Sections</u>
§ 310(a)(1)	609
(a)(2)	609
(a)(3)	Not Applicable
(a)(4)	Not Applicable
(a)(5)	609
(b)	608
	610
§ 311(a)	613(a)
(b)	613(b)
(b)(2)	703(a)(2)
703(b)	
§ 312(a)	701
702(a)	
(b)	702(b)
(c)	702(c)
§ 313(a)	703(a)
(b)	703(b)
(c)	703(a), 703(b)
(d)	703(c)
§ 314(a)	704, 1004
(b)	Not Applicable
(c)(1)	102
(c)(2)	102
(c)(3)	Not Applicable
(d)	Not Applicable
(e)	102
§ 315(a)	601(a)
(b)	602
703(a)(7)	
(c)	601(b)
(d)	601(c)
(d)(1)	601(a)(1)
(d)(2)	601(c)(2)
(d)(3)	601(c)(3)
(e)	514
§ 316(a)	101
(a)(1)(A)	502
512	
(a)(1)(B)	513
(a)(2)	Not Applicable
(b)	508
(c)	104(g)
§ 317(a)(1)	503
(a)(2)	504
(b)	1003
§ 318(a)	107

Note: This reconciliation and tie shall not, for any purpose, be deemed to be a part of the Indenture.

PILLSBURY WINTHROP SHAW PITTMAN LLP  
501 W. Broadway, Suite 1100  
San Diego, CA 92101-3575

October 27, 2006

MediciNova, Inc.  
4350 La Jolla Village Drive  
Suite 950  
San Diego, CA 92122

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We are acting as counsel for MediciNova, Inc., a Delaware corporation (the "Company"), in connection with the Registration Statement on Form S-3 (the "Registration Statement") relating to the registration under the Securities Act of 1933 (the "Act") of the following securities of the Company having an aggregate initial public offering price of up to \$100,000,000: (a) shares of Common Stock, par value \$.001 per share ("Common Stock"), (b) shares of preferred stock, par value \$.01 per share ("Preferred Stock"), in one or more series, (c) senior or subordinated debt securities ("Debt Securities"), (d) warrants to purchase shares of Common Stock or Preferred Stock or Debt Securities ("Warrants") or (e) other units ("Other Units"), each of which may represent any combination of the foregoing. The Common Stock, Preferred Stock, Debt Securities, Warrants and Other Units are collectively referred to herein as the "Securities." The Debt Securities will be issued pursuant to an Indenture in the form filed as Exhibit 4.5 to the Registration Statement (the "Indenture").

We have reviewed and are familiar with such corporate proceedings and other matters as we have deemed necessary for this opinion. In rendering this opinion, we have assumed that the Indenture will be duly authorized, executed and delivered by the applicable Trustee, where applicable, the Securities will be properly authenticated by the manual signature of an authorized representative of the Trustee, warrant agent, depositary or transfer agent, and the signatures on all documents examined by us are genuine, which assumptions we have not independently verified.

Based upon the foregoing, we are of the opinion that

1. With respect to the Common Stock, when the Board of Directors of the Company or a duly authorized committee of such Board (such Board of Directors or committee being referred to herein as the "Board") has taken all necessary corporate action to approve the issuance and establish the terms of the offering of shares of the Common Stock and related matters and when such shares have been issued and sold by the Company in the manner

contemplated by the Registration Statement and in accordance with such Board action, such shares of Common Stock (including any Common Stock duly issued upon conversion, exchange or exercise of any other Security in accordance with the terms of such Security or the instrument governing such Security providing for such conversion, exchange or exercise as approved by the Board) will be duly authorized, legally issued, fully paid and nonassessable.

2. With respect to the Preferred Stock, when the Board has taken all necessary corporate action to approve the issuance and establish the terms of any particular series of Preferred Stock, the offering thereof and related matters, including the filing of a certificate of designations conforming to the Delaware General Corporation Law regarding the Preferred Stock with the Secretary of State of the State of Delaware, and when shares of such series of Preferred Stock have been issued and sold by the Company in the manner contemplated by the Registration Statement and in accordance with such Board action, such shares of such series of Preferred Stock (including any Preferred Stock duly issued upon conversion, exchange or exercise of any other Security in accordance with the terms of such Security or the instrument governing such Security providing for such conversion, exchange or exercise as approved by the Board) will be duly authorized, legally issued, fully paid and nonassessable.

3. With respect to the Debt Securities, when (a) the Indenture has been duly qualified under the Trust Indenture Act of 1939, (b) the Board has taken all necessary corporate action to approve the issuance and establish the terms of such Debt Securities, the terms of the offering and related matters, (c) the Debt Securities have been duly executed and authenticated in accordance with the terms of the Indenture, and (d) the Debt Securities have been issued and sold in the manner contemplated by the Registration Statement and in accordance with the Indenture, such Debt Securities (including any Debt Securities duly issued upon conversion, exchange or exercise of any other Security in accordance with the terms of such Security or the instrument governing such Security providing for such conversion, exchange or exercise as approved by the Board) will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms, and entitled to the benefits of the Indenture, except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent transfer and similar laws affecting or relating to the rights of creditors generally, by general principles of equity (regardless of whether considered in a proceeding in equity or at law), and by requirements of reasonableness, good faith and fair dealing.

4. With respect to the Warrants, when (a) one or more agreements incorporating the terms and other provisions thereof has been duly executed and delivered by the Company and a warrant agent (a "Warrant Agreement"), (b) the Board has taken all necessary corporate action to approve the issuance and establish the terms of the Warrants, the terms of the offering of such Warrants, and related matters, (c) the Warrant certificates have been duly executed and authenticated or countersigned in accordance with the terms of the appropriate Warrant Agreement, and (d) the Warrants have been issued and sold in the manner contemplated by the Registration Statement and in accordance with the applicable Warrant Agreement, the Warrants will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms, except as may be limited by applicable bankruptcy, insolvency,



reorganization, moratorium, fraudulent transfer and similar laws affecting or relating to the rights of creditors generally, by general principles of equity (regardless of whether considered in a proceeding in equity or at law), and by requirements of reasonableness, good faith and fair dealing.

In connection with the opinions expressed above, we have assumed that, at or prior to the time of the delivery of any such Security, the Registration Statement, and any amendments thereto (including post-effective amendments) will have been declared effective, a Prospectus Supplement will have been prepared and filed with the Securities and Exchange Commission (the "Commission") describing the Securities offered thereby, the authorization of such Security will not have been modified or rescinded by the Board, and there will not have occurred any change in law affecting the validity or enforceability of such Security. We have also assumed that none of the terms of any Security to be established subsequent to the date hereof nor the issuance and delivery of such Security, nor the compliance by the Company with the terms of such Security, will violate any applicable federal or state law or will result in a violation of any provision of any instrument or agreement then binding upon the Company or any restriction imposed by any court or governmental body having jurisdiction over the Company.

This opinion is limited to matters governed by the General Corporation Law of the State of Delaware and the laws of the State of New York.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the use of our name under the caption "Legal Matters" in the Registration Statement and in the Prospectus included therein. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,  
/s/ PILLSBURY WINTHROP SHAW PITTMAN LLP

## MediciNova, Inc.

**Computation of Ratio of Earnings to Fixed Charges**  
**For the Years Ended December 31, 2005, 2004, 2003, 2002 and 2001**  
(Dollars in thousands)

	2005	2004	2003	2002	2001
<b>Earnings:</b>					
Pretax loss from continuing operations	\$(25,692)	\$(48,273)	\$(6,209)	\$(6,931)	\$(1,795)
<i>Add:</i>					
Fixed charges	100	48	19	5	5
<b>Total Earnings</b>	<u><u>\$ (25,592)</u></u>	<u><u>\$ (48,225)</u></u>	<u><u>\$ (6,190)</u></u>	<u><u>\$ (6,926)</u></u>	<u><u>\$ (1,790)</u></u>
Fixed Charges:					
Interest expensed, including amortized discounts and premiums	—	—	—	—	—
Estimate of interest expense within rental expense	\$ 100	\$ 48	\$ 19	\$ 5	\$ 5
<b>Total Fixed Charges</b>	<u><u>\$ 100</u></u>	<u><u>\$ 48</u></u>	<u><u>\$ 19</u></u>	<u><u>\$ 5</u></u>	<u><u>\$ 5</u></u>
<b>Ratio of Earnings to Fixed Charges</b>	<u><u>n/a</u></u>	<u><u>n/a</u></u>	<u><u>n/a</u></u>	<u><u>n/a</u></u>	<u><u>n/a</u></u>
<b>Deficiency of Earnings Available to Cover Fixed Charges</b>	<u><u>\$ (25,692)</u></u>	<u><u>\$ (48,273)</u></u>	<u><u>\$ (6,209)</u></u>	<u><u>\$ (6,931)</u></u>	<u><u>\$ (1,795)</u></u>

## MediciNova, Inc.

## Computation of Ratio of Earnings to Fixed Charges and Preferred Stock Dividends

For the Years Ended December 31, 2005, 2004, 2003, 2002 and 2001

(Dollars in thousands)

	2005	2004	2003	2002	2001
<b>Earnings:</b>					
Pretax loss from continuing operations	\$(25,692)	\$(48,273)	\$(6,209)	\$(6,931)	\$(1,795)
<i>Add:</i>					
Fixed charges	100	48	19	5	5
<b>Total Earnings</b>	<b><u>\$(25,592)</u></b>	<b><u>\$(48,225)</u></b>	<b><u>\$(6,190)</u></b>	<b><u>\$(6,926)</u></b>	<b><u>\$(1,790)</u></b>
<b>Combined Fixed Charges and Preferred Stock Dividends:</b>					
Interest expensed, including amortized discounts and premiums	—	—	—	—	—
Estimate of interest expense within rental expense	\$ 100	\$ 48	\$ 19	\$ 5	\$ 5
Preferred stock dividends	—	—	—	—	—
<b>Total Combined Fixed Charges and Preferred Stock Dividends</b>	<b><u>\$ 100</u></b>	<b><u>\$ 48</u></b>	<b><u>\$ 19</u></b>	<b><u>\$ 5</u></b>	<b><u>\$ 5</u></b>
<b>Ratio of Earnings to Fixed Charges and Preferred Stock Dividends</b>	<b><u>n/a</u></b>	<b><u>n/a</u></b>	<b><u>n/a</u></b>	<b><u>n/a</u></b>	<b><u>n/a</u></b>
<b>Deficiency of Earnings Available to Cover Fixed Charges and Preferred Stock Dividends</b>	<b><u>\$(25,692)</u></b>	<b><u>\$(48,273)</u></b>	<b><u>\$(6,209)</u></b>	<b><u>\$(6,931)</u></b>	<b><u>\$(1,795)</u></b>

**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-3) and related Prospectus of MediciNova, Inc. for the registration of securities with an aggregate offering price not to exceed \$100 million and to the incorporation by reference therein of our report dated February 10, 2006, with respect to the financial statements of MediciNova, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2005, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California  
October 23, 2006