MEDICINOVA INC
Form 424B5
February 07, 2018
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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-220593

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not offers to sell these securities, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 7, 2018

PRELIMINARY PROSPECTUS SUPPLEMENT

(To Prospectus dated October 2, 2017)

shares

MediciNova, Inc.

Common Stock

We are offering shares of our common stock. Our common stock is traded on the Nasdaq Global Market under the symbol MNOV and on the Jasdaq Market of the Tokyo Securities Exchange under the code 4875. On February 6, 2018, the last reported sale price of our common stock was $10.75 per share.

Investing in our common stock involves a high degree of risk. Please read Risk Factors beginning on page S-15 of this prospectus supplement and page 6 of the accompanying prospectus.

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

	Per Share	Total
Public Offering Price	$	$
Underwriting Discounts and Commissions[(1)]	$	$
Proceeds to MediciNova, Inc. (Before Expenses)	$	$

(1) We refer you to the Underwriting section of this prospectus supplement for additional information regarding underwriter compensation.

The underwriters may also purchase up to an additional shares of our common stock within 30 days of the date of this prospectus supplement solely to cover overallotments, if any.

We anticipate that delivery of the shares of our common stock will be made through the facilities of the Depository Trust Company on or about February , 2018.

Sole Book-running Manager

Ladenburg Thalmann

Lead Manager

B. Riley FBR

The date of this prospectus supplement is February , 2018

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus dated October 2, 2017 is part of a shelf registration statement on Form S-3 we filed with the Securities and Exchange Commission, or SEC, which became effective on October 2, 2017. By using a shelf registration statement, we may sell shares of common stock, preferred stock, debt securities and warrants in one or more offerings and in any combination, including in units, as described in the accompanying prospectus, from time to time in one or more offerings.

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this common stock offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein. We have not authorized, and the underwriters have not authorized, anyone to provide you with information that is different. The information contained in this prospectus supplement or the accompanying prospectus, or any documents incorporated by reference herein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled Where You Can Find More Information and Incorporation of Certain Information by Reference in this prospectus supplement and in the accompanying prospectus.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless otherwise stated, all references in this prospectus supplement and the accompanying prospectus to we, us, our, MediciNova, the Company and similar designations refer to MediciNova, Inc. and its subsidiaries on a consolidated basis.

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This prospectus supplement, the accompanying prospectus, and the information incorporated herein and therein by reference, include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference in this prospectus supplement. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information referred to under the heading Risk Factors in this prospectus supplement beginning on page S-15, the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering.

Our Business

Overview

We are a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of serious diseases with unmet medical needs and a commercial focus on the U.S. market. Our current strategy is to focus our development activities on MN-166 (ibudilast) for neurological disorders such as progressive multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS), glioblastoma and substance dependence and addiction (e.g., methamphetamine dependence, opioid dependence, and alcohol dependence), and MN-001 (tipelukast) for fibrotic diseases such as nonalcoholic steatohepatitis (NASH) and idiopathic pulmonary fibrosis (IPF). Our pipeline also includes MN-221 (bedoradrine) for the treatment of acute exacerbation of asthma and MN-029 (denibulin) for solid tumor cancers.

Our goal is to build a sustainable biopharmaceutical business through the successful development of differentiated products for the treatment of serious diseases with unmet medical needs in high-value therapeutic areas.

We have incurred significant net losses since our inception. As of September 30, 2017, we had an accumulated deficit of $339.9 million and expect to incur substantial net losses for the next several years as we continue to develop certain of our existing product development programs, and over the long-term if we expand our research and development programs and acquire or in-license products, technologies or businesses that are complementary to our own.

Our Product Candidates and Programs

Our product development programs address diseases that we believe are not well served by currently available therapies and represent significant commercial opportunities. We believe that we have product candidates that offer innovative therapeutic approaches that may provide significant advantages relative to current therapies.

Our product acquisitions have focused primarily on product candidates with significant preclinical and early clinical testing data that have been developed by the licensors outside of the United States. We utilize the existing data in preparing Investigational New Drug, or IND, applications or their foreign equivalents, and in designing and implementing additional preclinical or clinical trials to advance the development programs in the United States or abroad.

Following are the details of our product development programs.

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MN-166 (ibudilast)

MN-166 (ibudilast) is a novel, first-in-class, oral, anti-inflammatory and neuroprotective agent. MN-166 (ibudilast) inhibits macrophage migration inhibitory factor (MIF) and certain phosphodiesterases (PDEs). MN-166 (ibudilast) also attenuates activated glia cells, which play a major role in certain neurological conditions. While it has been in use for more than 20 years in Japan and Korea for the treatment of asthma and post-stroke dizziness, we are developing MN-166 (ibudilast) for the treatment of primary progressive and secondary progressive MS, ALS, and substance dependence and addiction. We licensed MN-166 (ibudilast) from Kyorin Pharmaceuticals Co., Ltd. (Kyorin) in 2004.

The FDA has granted Fast Track designations to MN-166 (ibudilast) for three separate indications: the treatment of progressive MS, the treatment of ALS, and the treatment of methamphetamine dependence. Fast Track designation is a process designed to facilitate the development and expedite the review of drugs that are intended to treat serious diseases and have the potential to fill an unmet medical need. An important feature of the FDA s Fast Track program is that it emphasizes early and frequent communication between the FDA and the sponsor throughout the entire drug development and review process to improve the efficiency of product development. Accordingly, Fast Track status can potentially lead to a shortened timeline to ultimate drug approval.

The FDA has granted Orphan Drug designation to MN-166 (ibudilast) for the treatment of ALS, which will provide seven years of marketing exclusivity if it is approved for ALS in the United States. The European Commission also granted Orphan Medicinal Product Designation for MN-166 (ibudilast) for the treatment of ALS, which offers potential benefits including 10 years of marketing exclusivity if it is approved for ALS in Europe.

We have filed patent applications for multiple uses of+ MN-166 (ibudilast) for the treatment of neurological conditions. Some of the patent estate has received allowance in the United States and foreign countries. For example, we have been granted separate U.S. patents that cover the use of MN-166 (ibudilast) for the treatment of progressive MS, for the treatment of ALS, and for the treatment of drug addiction or dependence.

Primary and Secondary Progressive Multiple Sclerosis: MS is a complex disease with predominantly unknown etiology and affects approximately 2.3 million people worldwide, according to the National Multiple Sclerosis Society, or NMSS. Also, according to NMSS, approximately 85 percent of people with MS are initially diagnosed with relapsing-remitting MS, or RRMS, and most people who are initially diagnosed with RRMS will eventually transition to secondary progressive MS, or SPMS. About 15 percent of people with MS are diagnosed with primary progressive MS, or PPMS. We believe the current market for pharmaceutical treatments of multiple sclerosis is approximately $20 billion worldwide. There is only one approved drug for PPMS and it is administered by intravenous infusion. There are no approved drugs generally considered safe and efficacious for SPMS in the absence of relapses. There is a significant medical need for a safe, effective, and conveniently administered therapy for patients with PPMS and SPMS. MN-166 (ibudilast) may meet these needs.

Based on promising results from a Phase 2 trial in relapsing MS completed in 2008, investigators from NeuroNEXT, a National Institutes of Health (NIH)-funded Phase 2 clinical trial network, evaluated MN-166 (ibudilast) in PPMS and SPMS patients in the United States. SPRINT-MS is the name of the Phase 2b, randomized, double-blind, placebo-controlled trial that evaluated the safety and tolerability of MN-166 (ibudilast) (up to 100 mg/day) in PPMS and SPMS patients. Recruitment and enrollment at 28 medical centers in the United States commenced in late 2013 and randomization of 255 subjects was completed in June 2015. In December 2016, we announced that the external Data and Safety Monitoring Board (DSMB) reviewed the results of the interim efficacy analysis from the ongoing Phase 2b clinical trial of MN-166 (ibudilast) in progressive MS and made a recommendation to the NIH National Institute of Neurological Disorders and Stroke, or NINDS, that the trial should continue as planned and this recommendation was accepted by NINDS.

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Announcement of the Presentation of Trial Results: On October 30, 2017, we announced the presentation of positive top-line results from the SPRINT-MS Phase 2b Trial of MN-166 (ibudilast) in progressive multiple sclerosis (progressive MS), which was conducted through the NIH-sponsored NeuroNEXT network. MN-166 (ibudilast) demonstrated a statistically significant 48% reduction in the rate of progression of whole brain atrophy compared to placebo (p=0.04) as measured by MRI analysis using brain parenchymal fraction (BPF) and there was no increased rate of serious adverse events in the MN-166 (ibudilast) group compared to the placebo group. The top-line results from the SPRINT-MS Trial were presented by Dr. Robert Fox, Staff Neurologist at the Cleveland Clinic and the principal investigator of this clinical trial.

Presentation of Additional Positive Clinical Data: On February 1, 2018, we announced the presentation of positive clinical efficacy trends from this trial regarding the important secondary endpoint of confirmed disability progression. MN-166 (ibudilast) demonstrated a 26% reduction in the risk of confirmed disability progression compared to placebo (hazard ratio = 0.74), as measured by EDSS (Expanded Disability Status Scale). The data was presented by Dr. Robert Naismith, Associate Professor of Neurology at Washington University School of Medicine and an investigator of the SPRINT-MS trial.

Amyotrophic Lateral Sclerosis (ALS): ALS, also known as Lou Gehrig s disease, is a progressive neurodegenerative disease that affects nerve cells in the brain and the spinal cord. The nerves lose the ability to trigger specific muscles, which causes the muscles to become weak. As a result, ALS affects voluntary movement and patients in the later stages of the disease may become totally paralyzed. Life expectancy of an ALS patient is usually two to five years. According to the ALS Association, there are approximately 20,000 ALS patients in the United States and approximately 6,000 people in the United States are diagnosed with ALS each year. We believe there is an approximate $1 billion market opportunity for an effective pharmaceutical treatment approved for ALS. Currently, riluzole and Radicava® are the only pharmaceutical treatments approved for ALS in the United States, but each have limited efficacy.

We have worked with Carolinas Neuromuscular/ALS-MDA Center at Carolinas HealthCare System Neurosciences Institute, which has conducted a clinical trial of MN-166 (ibudilast) in ALS. The trial was a randomized, double-blind, placebo-controlled study which included a six-month treatment period followed by a six-month open-label extension. The study evaluated the safety and tolerability of MN-166 (ibudilast) 60 mg/day versus placebo when administered in combination with riluzole in subjects with ALS, as well as several efficacy endpoints. Subject enrollment began in October 2014. In December 2015, we announced that the FDA granted Fast Track designation to MN-166 (ibudilast) for the treatment of patients with ALS. In March 2016, we announced that we received a Notice of Allowance from the U.S. Patent and Trademark Office (PTO) for a new patent which covers MN-166 (ibudilast) for the treatment of amyotrophic lateral sclerosis (ALS). In April 2016, we announced that interim efficacy data from a mid-study analysis of the clinical trial of MN-166 (ibudilast) in ALS was presented at the American Academy of Neurology (AAN) 68th Annual Meeting.

In December 2017, we announced positive top-line results from the ALS trial at Carolinas Neuromuscular/ALS-MDA Center. The trial achieved the primary endpoint of safety and tolerability. In addition, there was a higher rate of responders on the ALSFRS-R total score in the MN-166 (ibudilast) group compared to the placebo group. The Amyotrophic Lateral Sclerosis Functional Rating Scale-Revised (ALSFRS-R) total score measures the functional activity of an ALS subject. There was also a higher rate of responders on the ALSAQ-5 score in the MN-166 (ibudilast) group compared to the placebo group. The Amyotrophic Lateral Sclerosis Assessment Questionnaire (ALSAQ-5) score measures the physical mobility, activities of daily living and independence, eating and drinking, communication, and emotional functioning of an ALS subject.

In October 2016, we announced that the FDA granted Orphan Drug designation to MN-166 (ibudilast) for the treatment of ALS, which will provide seven years of marketing exclusivity if it is approved for ALS. In December 2016, we announced that the European Commission granted Orphan Medicinal Product Designation for MN-166 (ibudilast) for the treatment of ALS.

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In February 2016, we entered into an agreement to collaborate with Massachusetts General Hospital (MGH) to study the effects of MN-166 (ibudilast) on reducing brain microglial activation in ALS subjects measured by a positron emission tomography (PET) biomarker. This ongoing clinical trial, which we refer to as the ALS / Biomarker study, will also evaluate safety and tolerability as well as several clinical outcomes including ALS functional rating scale (ALSFRS-R), slow vital capacity (SVC), and muscle strength measured by hand-held dynamometry (HHD).

Methamphetamine Addiction: Methamphetamine is a central nervous system stimulant drug that is similar in structure to amphetamine. It is a Schedule II drug, meaning that it has high abuse potential and low therapeutic potential. According to the Substance Abuse and Mental Health Services Administration s (SAMHSA) 2016 National Survey on Drug Use and Health, there are approximately 684,000 people aged 12 or older with methamphetamine use disorder (includes those with dependence or abuse) in the United States. According to the Rand Corporation, the estimate of the economic burden in the United States of methamphetamine use, based on the most recent year for which data are available, is approximately $23.4 billion. Currently, there is no pharmaceutical treatment approved for methamphetamine dependence. Based on non-clinical results of the effects of MN-166 (ibudilast) in an animal model of methamphetamine relapse, investigators at UCLA conducted a Phase 1b clinical trial funded by the National Institute of Drug Abuse (NIDA) to examine the safety and preliminary efficacy of MN-166 (ibudilast) in non-treatment-seeking, methamphetamine-dependent users in an inpatient trial that was completed in 2012. Subsequently, UCLA investigators received NIDA grant funding for a Phase 2 clinical trial to evaluate MN-166 (ibudilast) in methamphetamine-dependent users in an outpatient trial setting that commenced in 2013. Enrollment in this trial was completed in September 2017 and we expect results of this trial during the first quarter of 2018. In November 2017, we announced a collaboration with Oregon Health & Science University to initiate a biomarker study to evaluate MN-166 (ibudilast) in methamphetamine use disorder. We were granted Fast Track designation from the FDA for MN-166 (ibudilast) for the treatment of methamphetamine dependence in 2013.

Opioid Withdrawal and Dependency: According to the SAMHSA s 2016 National Survey on Drug Use and Health, there are approximately 1.8 million people aged 12 or older with pain reliever use disorder (includes those with dependence or abuse) and approximately 626,000 people aged 12 or older with heroin use disorder (includes those with dependence or abuse) in the United States. Access to prescription opioids has recently become more difficult due to more stringent policies on prescribing opioids. An unintended consequence of this policy is increased use of heroin. Heroin is attractive to prescription opioid addicts because it is less expensive and more accessible than prescription opioids. Heroin poses serious health issues, such as risk of HIV and Hepatitis C infection, overdose and death (Knopf, 2012). The economic costs of nonmedical use of prescription opioids in the United States in 2006 (Hansen *et al.*, 2011), the most recent year for which data is available, was estimated to total more than $50 billion annually, with lost productivity and crime accounting for 94% of the total economic burden. There is an urgent, significant unmet medical need for a safe, effective non-addictive, non-opioid therapy for the treatment of prescription opioid and heroin addiction. Investigators at Columbia University and New York State Psychiatric Institute (NYSPI) previously completed a NIDA-funded, double-blind, randomized, placebo-controlled in-unit Phase 1b/2a clinical trial to evaluate the ability of MN-166 (ibudilast) to reduce opioid withdrawal symptoms in humans. Subsequently, investigators at Columbia University and NYSPI conducted a NIDA-funded Phase 2a clinical trial of MN-166 (ibudilast) for the treatment of prescription opioid or heroin dependency. In March 2016, we announced that positive findings from the results of this completed study in opioid dependence were presented at the Behavior, Biology and Chemistry: Translational Research in Addiction Meeting.

Alcohol Addiction: According to SAMHSA s 2016 National Survey on Drug Use and Health, there are approximately 15.1 million people aged 12 or older with alcohol use disorder (includes those with dependence or abuse) in the U.S. The Centers for Disease Control and Prevention (CDC) reports that excessive alcohol use cost the U.S. $249 billion in 2010, the latest year for which complete data are available. Currently, medicines

approved by the FDA to treat alcohol dependence include Antabuse®, Vivitrol®, Campral® and Revia®. However, the search for a safe and effective drug remains elusive due to limited success of these FDA-approved compounds (Witkiewitz *et al*., 2012). In a non-clinical trial (Bell *et al*., 2013), MN-166 (ibudilast) was examined in rats and mice and was found to reduce alcohol drinking in alcohol-preferring P rats and high-alcohol drinking (HAD1) rats by 50%, and in mice made dependent on alcohol at doses which had no effect on non-dependent mice. Investigators at UCLA received funding from the National Institute on Alcohol Abuse and Alcoholism to conduct a study to evaluate MN-166 (ibudilast) in a randomized, double-blind, placebo-controlled within-subject crossover design to determine the safety, tolerability and initial human laboratory efficacy of MN-166 (ibudilast) in a sample of 24 non-treatment seeking individuals with either alcohol abuse or dependence. The study was initiated in early 2014 and completed enrollment of 24 subjects in June 2015. Results of the alcohol dependence study were presented at the American College of Neuropsychopharmacology (ACNP) s 54th Annual Meeting in December 2015. MN-166 (ibudilast), but not placebo, significantly decreased basal, daily alcohol craving over the course of the study ($p<0.05$). MN-166 (ibudilast) did not affect cue- and stress-induced alcohol craving. However, MN-166 (ibudilast) increased positive mood during both the cue reactivity and stress procedures. MN-166 (ibudilast) was safe and well-tolerated during the study.

Glioblastoma: Malignant primary brain tumors represent the most frequent cause of cancer death in children. According to the American Association of Neurological Surgeons, glioblastoma (GBM) is an aggressive, extremely lethal form of brain malignancy that develops from glial cells (astrocytes and oligodendrocytes) and rapidly grows and commonly spreads into nearby brain tissue. GBM is classified as Grade IV, the highest grade, in the World Health Organization (WHO) brain tumor grading system. The American Brain Tumor Association reports that GBM represents 15% of all primary brain tumors and 55% of all gliomas and has the highest number of cases of all malignant tumors, with an estimated 12,390 new cases predicted for 2017. Despite decades of advancements in neuroimaging, neurosurgery, chemotherapy, and radiation therapy, only modest improvements have been achieved and the prognosis has not improved for individuals diagnosed with GBM. Median survival of GBM patients is 14.6 months. In June 2017, we announced positive results from an animal model study that examined the potential clinical efficacy of MN-166 (ibudilast) for the treatment of GBM which were presented at the 2017 American Society of Clinical Oncology (ASCO) Annual Meeting. Results of the GBM mouse model study showed that median survival was higher in the group that received combination treatment with MN-166 (ibudilast) plus temozolomide (TMZ) compared to the group that received TMZ alone.

MN-221 (bedoradrine)

MN-221 (bedoradrine) is a novel, highly selective $ß_2$-adrenergic receptor agonist which has been developed for the treatment of acute exacerbations of asthma. We licensed MN-221 from Kissei Pharmaceutical Co., Ltd. (Kissei) in February 2004. Current inhaled beta-agonist treatments for asthma exacerbations are limited by bronchoconstriction or insufficient airflow due to inflammation and airway constriction, which reduces the amount of inhaled drug that can get into the lungs. In addition, the amount of inhaled treatments a patient can tolerate is limited due to the potential for cardiovascular side effects (*e.g.* increased heart rate).

MN-221 is designed to treat acute exacerbations of asthma via intravenous (i.v.) infusion, bypassing constricted airways to deliver the drug to the lungs. Preclinical studies showed MN-221 to have a high affinity for the $ß_2$-adrenergic receptor, found primarily in the lungs, and a much lower affinity for the $ß_1$-adrenergic receptor found primarily in cardiac tissue. MN-221 s improved delivery to the lungs and its cardiac safety profile may help fill an unmet need for patients with acute exacerbations of asthma, helping them to breathe easier and avoid a costly hospital stay.

Acute Exacerbation of Asthma: According to the most recent data available from the U.S. National Center for Health Statistics, there were 1.75 million emergency department visits, 439,000 hospitalizations, and 3,404

deaths due to asthma in 2010. According to the U.S. National Heart, Lung and Blood Institute, the direct costs associated with hospital care due to asthma were estimated at $5.5 billion in the U.S. in 2010.

We completed a Phase 2b randomized, double-blind, placebo-controlled clinical trial (N=175) evaluating MN-221 in patients with acute exacerbations of asthma in the emergency department setting. MN-221 did not statistically meet the primary endpoint, improvement in FEV_1 (Forced Expiratory Volume in One Second) compared to placebo. However, MN-221 treatment demonstrated statistically significant improvements in endpoints associated with Dyspnea Index scores. MN-221 treatment significantly increased (improved) the change from baseline in Dyspnea Index scale score over Hours 0-3 compared to placebo (based on AUC [0-3 hr], p = 0.0405), significantly increased the change from baseline in Dyspnea Index scale scores at Hour 2 compared to placebo (based on mean score, p = 0.0042), and significantly increased the percentage of subjects who had improvement in the Dyspnea Index score ³ 1 point at Hour 2 compared to placebo (p = 0.0323). A post-hoc analysis was performed to evaluate the Treatment Failure rate defined as the number of subjects who were either hospitalized or who returned to the emergency department during the course of the study. In subjects who received corticosteroids greater than 3 hours prior to study drug infusion, the number of treatment failures was significantly greater in the placebo group (74%) versus the MN-221 group (43%), p=0.0489. No safety/tolerability issues of clinical significance were observed.

In October 2012, we met with the FDA to review future development of this product candidate. The FDA identified the risk/benefit profile of MN-221 as a focal point for further development and advised that a clinical outcome, such as a reduction in hospitalizations, would need to be a pivotal trial primary endpoint. We have decided that any future MN-221 development will be designed based on the feedback received from the FDA and that any future MN-221 clinical trial development for asthma will be partner-dependent from a funding perspective.

MN-001 (tipelukast)

MN-001 (tipelukast) is a novel, orally bioavailable small molecule compound which exerts its effects through several mechanisms to produce its anti-fibrotic and anti-inflammatory activity in preclinical models, including leukotriene (LT) receptor antagonism, inhibition of PDEs (mainly 3 and 4), and inhibition of 5-lipoxygenase (5-LO). The 5-LO/LT pathway has been postulated as a pathogenic factor in fibrosis development and MN-001 (tipelukast) s inhibitory effect on 5-LO and the 5-LO/LT pathway is considered to be a novel approach to treat fibrosis. MN-001 (tipelukast) has been shown to down-regulate expression of genes that promote fibrosis including LOXL2, Collagen Type 1 and TIMP-1. MN-001 (tipelukast) has also been shown to down-regulate expression of genes that promote inflammation including CCR2 and MCP-1. In addition, histopathological data shows that MN-001 (tipelukast) reduces fibrosis in multiple animal models. We licensed MN-001 (tipelukast) from Kyorin in 2002. In addition to granting MN-001 (tipelukast) Fast Track designation for the treatment of NASH with fibrosis, the FDA has also granted MN-001 (tipelukast) Orphan Drug designation and Fast Track designation for treatment of idiopathic pulmonary fibrosis (IPF).

Previously, we evaluated MN-001 (tipelukast) for its potential clinical efficacy in asthma and completed a Phase 2 study in asthma with positive results. MN-001 (tipelukast) has been exposed to more than 600 subjects and is considered generally safe and well-tolerated.

Nonalcoholic Steatohepatitis (NASH) and Nonalcoholic Fatty Liver Disease (NAFLD): Nonalcoholic steatohepatitis (NASH) is a condition in which there is fat in the liver along with inflammation and damage to liver cells. NASH is a common liver disease that resembles alcoholic liver disease but occurs in people who drink little or no alcohol. According to the U.S. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), NASH prevalence in adults in the U.S. is 3-12%, and an additional 30-40% of adult Americans have nonalcoholic fatty liver disease (NAFLD). The underlying cause of NASH is unclear, but it most often occurs in

persons who are middle-aged and overweight or obese. Many patients with NASH have elevated serum lipids, diabetes or pre-diabetes. Progression of NASH can lead to liver cirrhosis. Liver transplantation is the only treatment for advanced cirrhosis with liver failure. At this time, there is no treatment for NASH. It is estimated that there will be a potential market for the treatment of NASH of approximately $1.6 billion by 2020.

We completed a pre-clinical study evaluating MN-001 (tipelukast) s potential clinical efficacy for the treatment of NASH. MN-001 (tipelukast) administered orally once daily (10, 30, and 100 mg/kg for three weeks) was evaluated in the STAM (NASH-HCC) mouse model of NASH, as measured by liver biochemistry and histopathology, NAFLD activity score (NAS), and percent of fibrosis and gene expression. MN-001 (tipelukast), in a dose-dependent manner, significantly reduced fibrosis area compared with placebo ($p<0.01$) as demonstrated by a reduction in liver hydroxyproline content, supporting MN-001 (tipelukast) s anti-fibrotic properties. MN-001 (tipelukast) significantly improved NAS ($p<0.01$). MN-001 (tipelukast), in this animal model, improved NASH pathology by inhibiting hepatocyte damage ($p<0.01$) and ballooning ($p<0.01$). At the same time, MN-001 (tipelukast) was also shown to reduce certain gene expression levels in the liver, thus implying that MN-001 (tipelukast) reduces the formation of fibrosis in the NASH model.

We completed a second preclinical study that examined the potential clinical efficacy of MN-001 (tipelukast) for the treatment of advanced NASH. This study used mice in more advanced stages of NASH as compared to the first study of MN-001 (tipelukast) in a NASH mouse model. MN-001 (tipelukast) showed anti-NASH and anti-fibrotic effects in the advanced NASH mouse model. NAFLD activity score was significantly reduced in the MN-001 (tipelukast) treated group compared to the non-treated group ($p<0.001$). The reduction was observed consistently in all NAS components including hepatocyte ballooning score ($p<0.001$), lobular inflammation score ($p<0.01$), and steatosis score ($p<0.05$). Percent fibrosis area was also reduced in the MN-001 (tipelukast) treated group ($p<0.01$). In addition, alpha-SMA-positive staining area was significantly reduced in the MN-001(tipelukast) treated group ($p<0.001$). Collectively, these results provide compelling evidence that MN-001 (tipelukast) warrants further evaluation for the treatment of NASH in humans. We have an open IND and the FDA has approved two different Phase 2 clinical trial protocols for MN-001 (tipelukast) for the treatment of NASH in the U.S. A Phase 2 clinical trial is currently ongoing to investigate MN-001 (tipelukast) for the treatment of hypertriglyceridemia in NASH patients and NAFLD patients. The FDA has granted Fast Track designation to MN-001 (tipelukast) for the treatment of patients with NASH with fibrosis.

Idiopathic Pulmonary Fibrosis (IPF): Pulmonary fibrosis (PF) is a progressive disease characterized by scarring of the lungs that thickens the lining, causing an irreversible loss of the tissue s ability to transport oxygen. The causes of PF vary and can be due to anti-cancer drug therapy or exposure to chemicals. Idiopathic pulmonary fibrosis (IPF) is one type of PF without a clear cause. According to the Pulmonary Fibrosis Foundation, IPF affects between 132,000 200,000 people in the U.S., and an estimated 50,000 new cases are diagnosed annually. The prognosis for IPF is poor with a median survival of only two to three years following diagnosis and more than two-thirds of IPF patients die within five years. It is estimated that there will be a potential market for the treatment of IPF in excess of approximately $3 billion by 2025.

We completed a pre-clinical study evaluating MN-001 (tipelukast) s potential clinical efficacy for the treatment of pulmonary fibrosis. MN-001 (tipelukast), which was administered orally once daily (30, 100 and 300 mg/kg) for two weeks, was evaluated in a mouse model of bleomycin-induced pulmonary fibrosis (PF) as measured by CT evaluation of lung density, degree of pulmonary fibrosis using the Ashcroft score based on histopathological staining, and hydroxyproline content, which is an indicator of fibrosis or storage of collagen in tissue. MN-001 (tipelukast) significantly decreased the Ashcroft score compared to Vehicle group ($p<0.05$) after two weeks of treatment and MN-001 (tipelukast) reduced lung density when compared to the Vehicle-treated group. Moreover, lung hydroxyproline content was significantly reduced compared to the Vehicle group ($p<0.01$). These results show that

treatment with MN-001 (tipelukast) has significant anti-fibrogenic effects in

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bleomycin-induced pulmonary fibrosis in mice. We have an open IND and the FDA approved a Phase 2 clinical trial protocol for MN-001 (tipelukast) for the treatment of moderate to severe IPF in the U.S. A Phase 2 clinical trial of MN-001 (tipelukast) to treat moderate to severe IPF is currently ongoing at Penn State. The FDA has granted Orphan Drug designation to MN-001 (tipelukast) for treatment of IPF. Orphan Drug designation will provide seven years of marketing exclusivity for MN-001 (tipelukast) for the treatment of IPF if it is approved for this indication. The FDA has also granted Fast Track designation to MN-001 (tipelukast) for the treatment of patients with IPF.

MN-029 (denibulin)

MN-029 (denibulin) is a novel tubulin binding agent (TBA) under development for the treatment of solid tumors. It exerts its activity through reversible inhibition of tubulin polymerization resulting in disruption of the cell cytoskeleton, which causes the cancer cells to deform in shape and ultimately leads to extensive central necrosis of the solid tumor. We licensed MN-029 from Angiogene Pharmaceuticals, Ltd. (Angiogene) in 2002.

Several preclinical pharmacology studies 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, in addition to the direct effect over tumor cells. 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. Shutdown of tumor blood flow in tumor models was confirmed through the use of dynamic contrast-enhanced magnetic resonance imaging. In two Phase I clinical studies we conducted, MN-029 was well-tolerated at doses that reduced tumor blood flow.

The first Phase 1 trial determined the safety, tolerability, and maximum tolerated dose (MTD) level of single doses of MN-029 given every three weeks in 34 subjects with refractory cancer. The MTD was determined to be 180 mg/m^2 and appeared to be safe as a single i.v. dose administered every three weeks for as many as 25 cycles. There were no clinically significant changes in routine laboratory assessments, vital signs, or ECG monitoring. The most commonly reported adverse events (AEs) were similar to other chemotherapies vomiting, nausea, diarrhea, and fatigue. There were a total of nine serious adverse events (SAEs) and study discontinuations due to AEs. In a preliminary evaluation of anti-tumor activity, no patient had a complete response or partial response; however stable disease was seen in 12 patients. MN-029 had a desired vascular effect in seven of 11 patients that were administered drug at dose levels of ³120 mg/m^2. Nine patients continued into extended cycles of treatment.

The second Phase 1 study was conducted to determine the safety, tolerability and MTD of single doses of MN-029 given every seven days for a total of three doses (Days 1, 8 and 15), followed by 13-day recovery (Days 16-28) in subjects with advanced/metastatic solid tumor cancer. Subjects who tolerated treatment with MN-029 could receive additional cycles. All 20 subjects reported at least one AE related to study drug. The most common AEs considered related to study drug were vomiting, nausea, arthralgia and headache. There were no clinically significant changes in routine laboratory assessments, vital signs or ECG monitoring. There was one SAE considered unrelated to study drug. Consistent with the previous Phase 1 trial, MN-029 up to dose levels of 180 mg/m^2 appeared to be safe and well tolerated. One subject had a partial response which lasted for 74 days. Stable disease was observed in seven subjects. The results suggested an effect of MN-029 on vascular perfusion; however, a larger sample size is warranted.

In January 2014, we were granted a new patent from the U.S. Patent and Trademark Office which covers MN-029 (denibulin) di-hydrochloride. The patent, which will expire no earlier than July 2032, has claims that cover a compound, pharmaceutical composition and method of treating certain cell proliferation diseases, including solid tumors, based on denibulin di-hydrochloride. We have filed patent applications based on this U.S.

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patent in certain foreign countries, and most of them have been granted. We plan to pursue further development of MN-029 for the treatment of solid tumors.

Strategy

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

Pursue the development of MN-166 (ibudilast) for multiple potential indications with the support of dilutive and non-dilutive financings.

We intend to advance our diverse MN-166 (ibudilast) program through a combination of clinical trials funded by us, investigator-sponsored clinical trials or trials funded through government grants or other grants. In addition to providing drug supply and regulatory support, we are funding portions of the consortium-sponsored trials. For example, we contributed financially to the Secondary and Primary Progressive Ibudilast NeuroNEXT Trial in Multiple Sclerosis (SPRINT-MS) Phase 2 clinical trial of MN-166 (ibudilast) for the treatment of progressive MS, which was primarily funded by the NIH. In addition, we are contributing financially to the ongoing clinical trial of MN-166 (ibudilast) for the treatment of ALS as well as the ongoing ALS / Biomarker study. We also intend to pursue additional strategic alliances to help support further clinical development of MN-166 (ibudilast).

Pursue the development of MN-001 for fibrotic diseases such as NASH and IPF.

We intend to advance development of MN-001 (tipelukast) through a variety of means, which may include investigator-sponsored trials with or without grant funding as well as trials funded by us.

Consider strategic partnerships with one or more leading pharmaceutical companies to complete late-stage product development and successfully commercialize our products.

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

Upon completion of proof-of-concept Phase 2 clinical trials, we intend to discuss strategic alliances with leading pharmaceutical or biotechnology companies who seek late stage product candidates which could support further clinical development and product commercialization, provided that we intend to fund all or a portion of a Phase 3 clinical trial of MN-166 (ibudilast) for the treatment of progressive MS with the net proceeds of this offering. See Use of Proceeds on page S-19 of this prospectus supplement.

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

Recent Developments

Recent Sales Pursuant to At-The-Market Sales Agreement

On May 22, 2015, we entered into an at-the-market issuance sales agreement with MLV & Co. LLC, or MLV, pursuant to which we may sell common stock through MLV from time to time up to an aggregate offering price of $30.0 million. We agreed to pay MLV an aggregate commission rate of up to 4.0% of the gross proceeds of any common stock sold under this agreement. On September 16, 2016, we entered into Amendment No. 1 to the original sales agreement with MLV to also include FBR Capital Markets & Co. as a sales agent.

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Subsequent to the quarter ended September 30, 2017, we sold 592,514 shares of our common stock under this at-the-market issuance sales agreement for gross proceeds of $3,947,022 at a weighted average price of $6.66 per share.

Risk Factors

An investment in our common stock is subject to a number of risks and uncertainties. Before investing in our common stock, you should carefully consider the following, as well as the information contained under Risk Factors beginning on page S-15 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

We have incurred significant operating losses since our inception and expect that we will incur continued losses for the foreseeable future.

We are largely dependent on the success of our MN-166 (ibudilast) and MN-001 (tipelukast) product candidates and we cannot be certain that these product candidates will receive regulatory approval or be successfully commercialized.

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

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, if ever.

Because the results of early clinical trials are not necessarily predictive of future results, our product candidates we advance into clinical trials in any indication may not have favorable results in later clinical trials, if any, or receive regulatory approval.

In order to commercialize a therapeutic drug successfully, a product candidate must receive regulatory approval after the successful completion of clinical trials, which are long, complex and costly, have a high risk of failure and can be delayed or terminated at any time.

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

Even if our product candidates receive regulatory approval, they may still face future development and regulatory difficulties.

Delays in the commencement or completion of clinical trials, or suspension or termination of our clinical trials, could result in increased costs to us and delay or limit our ability to obtain regulatory approval for our product candidates.

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

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

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.

Company and Other Information

We were incorporated in the State of Delaware in September 2000. Our common stock trades on the Nasdaq Global Market under the symbol MNOV and on the Jasdaq Market of the Tokyo Securities Exchange under the code 4875. Our principal executive offices are located at 4275 Executive Square, Suite 300, La Jolla, CA 92037. Our telephone number is (858) 373-1500. Our website is www.medicinova.com, which includes links to reports we have filed with the SEC. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus and should not be considered part of this prospectus.

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THE OFFERING

Common stock offered by us:	shares.
Common stock to be outstanding after this offering:	shares (or shares if the underwriters overallotment option to purchase additional shares is exercised in full).
Overallotment Option:	We have granted the underwriters an option to purchase up to additional shares of our common stock. This option is exercisable, in whole or in part, for a period of 30 days from the date of this prospectus supplement solely to cover overallotments, if any.
Use of proceeds:	We intend to use the net proceeds from this offering primarily to continue to fund the development of our MN-166 (ibudilast) and MN-001 (tipelukast) programs, including a Phase 3 clinical trial of MN-166 (ibudilast) for the treatment of progressive MS, and for working capital and general corporate purposes, including support for continuing research and development of our product candidates and research programs, clinical trials, commercialization activities and business development activities. We may use a portion of the net proceeds for acquisitions of businesses, products, technologies or licenses that are complementary to our business, although we have no present commitments or agreements to do so. See Use of Proceeds on page S-19 of this prospectus supplement.
Risk Factors:	Our business and an investment in our common stock involve significant risks. See Risk Factors beginning on page S-15 of this prospectus supplement and on page 5 of the accompanying prospectus for a discussion of factors you should read and carefully consider before investing in our common stock.
NASDAQ Global Market symbol:	MNOV.
Tokyo Securities Exchange Code:	4875.

The number of shares to be outstanding after this offering is based on 35,672,265 shares of common stock outstanding as of September 30, 2017 and excludes the following as of such date:

5,548,105 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of $4.02 per share;

869,047 shares of our common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of $3.18 per share;

1,250,592 shares available for future issuance pursuant to the 2013 Equity Incentive Plan; and

183,972 shares available for future issuance pursuant to the Employee Stock Purchase Plan.

The number of shares to be outstanding after this offering also excludes (i) 592,514 shares of common stock issued pursuant to our at-the-market sales program, (ii) the issuance of stock options exercisable for 35,000 shares of our common stock pursuant to our 2013 Equity Incentive Plan, at a weighted average exercise price of

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$6.51 per share, (iii) the issuance of performance stock options exercisable for 1,162,000 shares of our common stock pursuant to our 2013 Equity Incentive Plan, at a weighted average exercise price of $7.00 per share, (iv) the exercise of a warrant to purchase 119,047 shares of our common stock at an exercise price of $3.38 and (v) the issuance of 124,830 shares of our common stock pursuant to the exercise of stock options under our 2013 Equity Incentive Plan, at a weighted average exercise price of $4.42 per share, in each case, subsequent to September 30, 2017.

Unless otherwise indicated, all information contained in this prospectus supplement assumes:

- No exercise of the underwriters overallotment option to purchase additional shares of our common stock; and
- No exercise of outstanding stock options or warrants to purchase shares of common stock nor or the issuance of awards under the 2013 Equity Incentive Plan or shares under the Employee Stock Purchase Plan after September 30, 2017.

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RISK FACTORS

You should carefully consider the risk factors set forth below, under the caption Risk Factors in the accompanying prospectus and under the caption Risk Factors in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which is incorporated by reference in this prospectus supplement and the accompanying prospectus. See Where You Can Find More Information and Incorporation of Certain Information by Reference. Before making any investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus supplement and the accompanying prospectus. The risks and uncertainties we describe are not the only ones facing us. Additional risks and uncertainties that we are unaware of or that we believe are not material at the time could also materially adversely affect our business, financial condition or results of operations. In any case, the value of our common stock could decline, and you could lose all or part of your investment. See also the information contained under the heading Special Note Regarding Forward-Looking Statements immediately below.

Risks Related to This Offering

Management will have broad discretion as to the use of the net proceeds from this offering, and we may not use the proceeds effectively.

While we currently intend to use the net proceeds from this offering primarily to continue to fund the development of our MN-166 (ibudilast) and MN-001 programs, including a Phase 3 clinical trial of MN-166 (ibudilast) for the treatment of progressive MS, and for working capital and general corporate purposes, our management will otherwise have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that our stockholders believe do not improve the development of our products or results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates and cause the price of our common stock to decline.

You will experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. After deducting underwriting discounts and commissions and estimated offering expenses payable by us, and based on a net tangible book value of our common stock of $0.57 per share as of September 30, 2017, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of $ per share in the net tangible book value of common stock. See the section entitled Dilution below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock, including pursuant to our at-the-market sales program, at prices that may not be the same as the price per share in this offering. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders, including investors who purchase shares of common stock in this offering. The price per share at which we sell additional shares of our common stock or securities convertible into

common stock in future transactions may be higher or lower than the price per share in this offering.

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Our stockholders may be diluted by the exercise of outstanding options or warrants to purchase common stock.

As of September 30, 2017, we had outstanding stock options to purchase 5,548,105 shares of our common stock, issuable at a weighted average exercise price of $4.02 per share and outstanding warrants to purchase 869,047 shares of our common stock at a weighted average exercise price of $3.18 per share. You may incur dilution upon the issuance of shares upon exercise of such outstanding options or warrants.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus and the documents incorporated herein by reference contain, or will contain, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Any statements contained in this prospectus supplement and the accompanying prospectus and the documents incorporated herein by reference that do not describe historical facts constitute forward-looking statements. These forward-looking statements relate to anticipated future events, future results of operations or future financial performance, and include, but are not limited to:

- the potential for our product candidates to receive regulatory approval for one or more indications on a timely basis, or at all;
- the success, timing, design and results of clinical trials for our product candidates, including any delays in commencing or completing enrollment for our ongoing or planned clinical trials;
- plans for future clinical trials and regulatory submissions;
- unexpected adverse side effects or inadequate therapeutic efficacy of our product candidates that could delay or prevent regulatory approval or commercialization or that could result in product liability claims;
- other difficulties or delays in development, testing, manufacturing and marketing of and obtaining regulatory approval for our product candidates;
- the continuation and success of our collaborations with our licensors;
- the performance of third party service providers and manufacturers;
- our ability to protect our intellectual property rights and disputes, including the scope and validity of patent protection for our product candidates;
- the size and growth of the potential markets for our product candidates and our ability to serve those markets;
- the potential to attract one or more strategic partners and terms of any related transactions;

intense competition and our ability to compete if any of our product candidates are ever commercialized;

regulatory developments in the United States and foreign countries;

our use of the net proceeds from this offering;

the potential impact of uncertainties in the credit and capital markets or a future deterioration of these markets on our investment portfolio; and

our ability to raise sufficient capital to support our operations and business strategy when needed, or at all.

In some cases, you can identify forward-looking statements by terminology such as may, might, will, should, inte expects, plans, goals, projects, anticipates, believes, estimates, predicts, potential, or continue or t terms or other comparable terminology.

These forward-looking statements are based on our current expectations, but are uncertain and involve substantial known and unknown risks, uncertainties and other factors which may cause our (or our industry s) actual results, levels of activity or performance to be materially different from any future results, levels of

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activity or performance expressed or implied by these forward-looking statements. The factors that could cause our actual future results to differ materially from current expectations include, but are not limited to: risks of obtaining future partner or grant funding for development of MN-166, MN-001, MN-221 and MN-029 and risks of raising sufficient capital when needed to fund MediciNova s operations and contribution to clinical development, risks that MediciNova does not currently have any products that are approved for commercial sale and therefore does not expect to generate any revenues from product sales in the foreseeable future, if ever, risks and uncertainties inherent in clinical trials, including the potential cost, expected timing and risks associated with clinical trials designed to meet FDA guidance and the viability of further development considering these factors, risks from MediciNova s dependence on the success of its MN-166 and MN-001 product candidates and uncertainty that these products will receive regulatory approval or be successfully commercialized, product development and commercialization risks, the uncertainty of whether the results of clinical trials will be predictive of results in later stages of product development, the risk of delays or failure to obtain or maintain regulatory approval, risks associated with the reliance on third parties to sponsor and fund clinical trials, risks regarding intellectual property rights in product candidates and the ability to defend and enforce such intellectual property rights, the risk of failure of the third parties upon whom MediciNova relies to conduct its clinical trials and manufacture its product candidates to perform as expected, the risk of increased cost and delays due to delays in the commencement, enrollment, completion or analysis of clinical trials or significant issues regarding the adequacy of clinical trial designs or the execution of clinical trials, and the timing of expected filings with the regulatory authorities, MediciNova s collaborations with third parties, the availability of funds to complete product development plans and MediciNova s ability to obtain third party funding for programs and raise sufficient capital when needed. These factors and other considerations are described in greater detail in the Risk Factors section of this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. You should consider these Risk Factors, as well as any Risk Factors that we include in our future filings with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, incorporated by reference into this prospectus supplement and the accompanying prospectus before making an investment decision. Any of the risks, as well as additional risks and uncertainties not currently known to us or that we currently deem immaterial, could materially and adversely affect our results of operations or financial condition.

As a result, you should not place undue reliance on these forward-looking statements as predictions for future events, which speak only as of the date that they were made. The cautionary statements made in this prospectus regarding forward-looking statements should be considered with any written or oral forward-looking statements that we may issue in the future.

Except as required by applicable law, including the securities laws of the United States, we do not intend to update the forward-looking statements to conform to actual results or later events or circumstances or to reflect the occurrence of unanticipated events. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

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USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately $ million, or approximately $ million if the underwriters exercise in full their overallotment option to purchase additional shares of common stock, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering primarily to continue to fund the development of our MN-166 (ibudilast) and MN-001 (tipelukast) programs, including a Phase 3 clinical trial of MN-166 (ibudilast) for the treatment of progressive MS, and for working capital and general corporate purposes, including support for our continuing research and development of our product candidates and research programs, clinical trials, commercialization activities and business development activities. We may use a portion of the net proceeds for the acquisitions of businesses, products, technologies or licenses that are complementary to our business, although we have no present commitments or agreements to do so.

The amounts and timing of the expenditures may vary significantly, depending upon numerous factors, including our proprietary research and programs and our clinical trials as well as the amount of cash used in our operations. Accordingly, our management will have broad discretion in the application of the net proceeds and investors will be relying upon the judgment of our management regarding the application of these proceeds. We reserve the right to change the use of these proceeds.

Pending the application of the net proceeds as described above, we intend to invest the net proceeds from this offering in short-term, interest-bearing, marketable securities.

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DIVIDEND POLICY

We have never declared or paid any dividends on our common stock and do not anticipate paying any in the foreseeable future. We currently intend to retain all of our future earnings, if any, to finance the operation and expansion of our business. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including future earnings, capital requirements, financial conditions, future prospects, contractual restrictions and covenants and other factors that our board of directors may deem relevant.

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DILUTION

Our net tangible book value as of September 30, 2017 was approximately $20.3 million, or $0.57 per share of common stock. If you purchase our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the public offering price per share and our pro forma net tangible book value per share after this offering. We calculate net tangible book value per share by dividing our net tangible book value, which is tangible assets less total liabilities, by the number of outstanding shares of our common stock.

After giving effect to the sale of shares of our common stock at the public offering price of $ per share and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2017 would have been approximately $ million, or $ per share. This represents an immediate increase in net tangible book value of $ per share to existing stockholders and immediate dilution in net tangible book value of $ per share to new investors participating in this offering at the public offering price. The following table illustrates this dilution on a per share basis:

Public offering price per share		$
Net tangible book value per share as September 30, 2017	$ 0.57	
Increase per share attributable to investors purchasing our common stock in this offering	$	
As adjusted net tangible book value per share as of September 30, 2017, after giving effect to this offering		$
Dilution in net tangible book value per share to investors purchasing our common stock in this offering		$

The information above assumes that the underwriters do not exercise their overallotment option to purchase additional shares. If the underwriters exercise their overallotment option to purchase additional shares in full at the public offering price of $ per share, the as adjusted net tangible book value would increase to approximately $ million, or $ per share, representing an increase to existing stockholders of approximately $ per share, and there would be an immediate dilution of approximately $ per share to new investors.

The dilution table above is based on 35,672,265 shares of common stock outstanding as of September 30, 2017 and excludes the following as of such date:

- 5,548,105 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of $4.02 per share;
- 869,047 shares of our common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of $3.18 per share;
- 1,250,592 shares available for future issuance pursuant to the 2013 Equity Incentive Plan; and
- 183,972 shares available for future issuance pursuant to the Employee Stock Purchase Plan.

To the extent stock options or warrants outstanding as of September 30, 2017 or issued after such date have been or may be exercised, or we issue additional options, warrants or shares, including the shares issued pursuant to our at-the-market sales program, there may be further dilution to investors. Additionally, the information above excludes (i) 592,514 shares of common stock issued pursuant to our at-the-market sales program, (ii) the issuance of stock options exercisable for 35,000 shares of our common stock pursuant to our 2013 Equity Incentive Plan, at a weighted average exercise price of $6.51 per share, (iii) the issuance of performance stock options exercisable for 1,162,000 shares of our common stock pursuant to our 2013 Equity Incentive Plan, at a weighted average exercise price of $7.00 per share, (iv) the exercise of a warrant to purchase 119,047 shares of our common stock at an exercise price of $3.38 and (v) the issuance of 124,830 shares of our common stock pursuant to the exercise of stock options under our 2013 Equity Incentive Plan, at a weighted average exercise price of $4.42 per share, in each case, subsequent to September 30, 2017. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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UNDERWRITING

We are offering the shares of common stock described in this prospectus supplement through the underwriters named below. Ladenburg Thalmann & Co. Inc. is acting as representative of the underwriters and book-running manager of the offering, and B. Riley FBR, Inc. is acting as lead manager of the offering. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase from us on a firm commitment basis, at the public offering price less the underwriting discount set forth on the cover page of this prospectus supplement, the number of shares of common stock listed next to its name in the following table:

Underwriter	Number of Shares
Ladenburg Thalmann & Co. Inc.	
B. Riley FBR, Inc.	
Total	

A copy of the underwriting agreement will be filed as an exhibit to a Current Report on Form 8-K filed by us with the SEC in connection with this offering.

We have been advised by the underwriters that they propose to offer shares of our common stock directly to the public at the public offering price set forth on the cover page of this prospectus supplement. Any shares sold by the underwriters to securities dealers will be sold at the public offering price less a selling concession not in excess of $ per share. The underwriters may allow, and these selected dealers may re-allow, a concession of not more than $ per share to other brokers and dealers.

The underwriting agreement provides that the underwriters obligation to purchase shares of our common stock is subject to conditions contained in the underwriting agreement. The underwriters are obligated to purchase and pay for all of the shares offered by this prospectus supplement other than those covered by the over-allotment option, if any of these shares are purchased.

No action has been taken by us or the underwriters that would permit a public offering of the shares of common stock included in this offering in any jurisdiction where action for that purpose is required. None of the shares of our common stock included in this offering may be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sales of any shares of our common stock be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus supplement are advised to inform themselves about and to observe any restrictions relating to this offering and the distribution of this prospectus supplement. This prospectus supplement is neither an offer to sell nor a solicitation of any offer to buy shares of our common stock in any jurisdiction where that would not be permitted or legal.

The underwriters have advised us that they do not intend to confirm sales to any accounts over which they exercise discretionary authority.

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Underwriting discount

The following table summarizes the underwriting discount we will pay to the underwriters.

	Per Share	Total without over-allotment	Total with over-allotment
Public offering price	$	$	$
Underwriting discount to be paid to the underwriters by us for the shares (% of gross proceeds)			
Proceeds, before expenses, to us[1]	$	$	$

(1) We estimate that our total expenses of this offering, excluding the underwriting discount, will be approximately $250,000.

The underwriters do not have any right of first refusal or any similar rights with respect to the provision of services to us in the future. Ladenburg Thalmann & Co. Inc. has performed investment banking services for us in the past, for which it has received customary fees and expenses. The underwriters and their respective affiliates may, from time to time, engage in transactions with or perform services for us in the ordinary course of their business.

Over-allotment option

We have granted to the underwriters an option, exercisable not later than 30 days after the date of this prospectus supplement, to purchase up to shares at the public offering price, less the underwriting discount, set forth on the cover page of this prospectus supplement. The underwriters may exercise the option solely to cover over-allotments, if any, made in connection with this offering. If any additional shares are purchased pursuant to the over-allotment option, the underwriters will offer these additional shares on the same terms as those on which the other shares are being offered hereby.

Determination of offering price

The public offering price of the shares was negotiated between us and the underwriters, based on the trading of our common stock prior to the offering, among other things. Other factors considered in determining the public offering price of the shares include the history and prospects of the Company, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Lock-up Agreements

Our officers, directors and a principal stockholder have agreed with the underwriters to be subject to a lock-up period of 90 days following the date of this prospectus supplement. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. We have also agreed, in the

underwriting agreement, to similar lock-up restrictions on the issuance and sale of our securities for 90 days following the date of this prospectus supplement (including sales pursuant to our at-the-market issuance sales agreement, as amended, with MLV & Co. LLC and FBR Capital Markets & Co.), although we will be permitted to issue stock options to directors, officers, employees and consultants under our existing plans. The representative may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

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Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

Stabilization, short positions and penalty bids

To facilitate the offering, the underwriters may engage in over-allotment, syndicate covering transactions, stabilizing transactions and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of our common stock:

Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase from us in the offering, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any short position by exercising their over-allotment option, in whole or in part, or purchasing shares in the open market.

Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of securities needed to close out the short position, the underwriters will consider, among other things, the price of the securities available for purchase in the open market as compared to the price at which they may purchase the securities through the over-allotment option. If the underwriters sell more securities than could be covered by the over-allotment option known as, a naked short position, the position can only be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.

Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum.

Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member or other broker-dealer participating in the offering when the securities originally sold by that syndicate member or other broker-dealer are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the Nasdaq Global Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriters also may engage in passive market making transactions in our common stock on the Nasdaq Global Market in accordance with Regulation M during a period before the

commencement of offers or sales of shares of our common stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker s bid, that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we nor the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we

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nor the underwriters make any representation that the underwriters will engage in these transactions or that any transactions, once commenced, will not be discontinued without notice.

Electronic offer, sale and distribution of shares.

A prospectus in electronic format may be made available on the web sites maintained by the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representative may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, or to contribute to payments the underwriters may be required to make with respect to any of these liabilities.

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LEGAL MATTERS

Certain legal matters will be passed upon for us by Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP, San Diego, California. Certain legal matters in connection with the offering will be passed upon for the underwriters by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York.

EXPERTS

The consolidated financial statements as of December 31, 2016 and 2015 and for each of the two years in the period ended December 31, 2016 and management s assessment of the effectiveness of internal control over financial reporting as of December 31, 2016 incorporated by reference in this prospectus supplement have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of MediciNova, Inc. appearing in MediciNova, Inc. s Annual Report (Form 10-K) for the year ended December 31, 2014, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 (File No. 333-220593), of which this prospectus supplement and the accompanying prospectus are a part, under the Securities Act, to register the shares of common stock offered by this prospectus supplement. However, this prospectus supplement and the accompanying prospectus do not contain all of the information contained in the registration statement and the exhibits and schedules to the registration statement. We encourage you to carefully read the registration statement and the exhibits and schedules to the registration statement.

We file annual, quarterly and current reports, proxy statements and other information electronically with the SEC. You may read and copy these reports, proxy statements and other information at the SEC s public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. You can request copies of these documents by writing to the SEC and paying a fee for the copying costs. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us. The SEC s Internet site can be found at http://www.sec.gov. In addition, we make available on or through our Internet site copies of these reports as soon as reasonably practicable after we electronically file or furnish them to the SEC. Our Internet site can be found at http://www.medicinova.com.

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INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are allowed to incorporate by reference information contained in documents that we file with the SEC. This means that we can disclose important information to you by referring you to those documents and that the information in this prospectus supplement is not complete. You should read the information incorporated by reference for more detail. We incorporate by reference in two ways. First, we list below certain documents that we have already filed with the SEC. The information in these documents is considered part of this prospectus supplement. Second, the information in documents that we file in the future will update and supersede the information currently in, and be incorporated by reference in, this prospectus supplement.

We incorporate by reference into this prospectus supplement the documents listed below, and any filings we make with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement until the termination of this offering (in each case, except for the information furnished under Item 2.02 or Item 7.01 in any current report on Form 8-K and Form 8-K/A):

- our annual report on Form 10-K for the fiscal year ended December 31, 2016 filed with the SEC on February 14, 2017 (File No. 001-33185-17610822);

- our quarterly reports on Form 10-Q for the fiscal quarters ended March 31, 2017, June 30, 2017 and September 30, 2017, filed with the SEC on April 26, 2017, July 26, 2017 and October 23, 2017, respectively (File Nos. 001-33185-17784807, 001-33185-17983809, 001-33185-171149233);

- our current reports on Form 8-K filed with the SEC on June 12, 2017 (File No. 001-33185-17907166), September 7, 2017 (File No. 001-33185-17983809), October 30, 2017 (File No. 001-33185-171160725) and November 13, 2017 (File No. 001-33185-171192999);

- the information specifically incorporated by reference into our annual report on Form 10-K for the fiscal year ended December 31, 2016 from our definitive proxy statement on Schedule 14A filed with the SEC on April 27, 2017 for our 2017 Annual Meeting of Stockholders (File No. 001-33185-17790225); and

- the description of our common stock contained in our Registration Statement on Form 8-A as filed with the SEC on December 5, 2006 pursuant to Section 12(b) of the Exchange Act (File No. 001-33185-061257707).

We will provide each person, including any beneficial owner, to whom a prospectus supplement and the accompanying prospectus is delivered, a copy of any or all of the information that has been incorporated by reference into this prospectus supplement but not delivered with this prospectus supplement upon written or oral request at no cost to the requester. Requests should be directed to:

MediciNova, Inc.

4275 Executive Square, Suite 300

La Jolla, California,

Attn: Investor Relations

(858) 373-1500.

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PROSPECTUS

$200,000,000

Common Stock

Preferred Stock

Debt Securities

Guarantees of Debt Securities

Warrants

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We may offer and sell from time to time, in one or more series or issuances and on terms that we will determine at the time of the offering, any combination of the securities described in this prospectus, up to an aggregate amount of $200,000,000.

We will provide specific terms of any offering in a supplement to this prospectus. Any prospectus supplement may also add, update, or change information contained in this prospectus. You should carefully read this prospectus and the applicable prospectus supplement or issuer free writing prospectus relating to a particular offering as well as the documents incorporated or deemed to be incorporated by reference in this prospectus before you purchase any of the securities offered hereby.

These securities may be offered and sold in the same offering or in separate offerings; to or through underwriters, dealers, and agents; or directly to purchasers. The names of any underwriters, dealers, or agents involved in the sale of our securities, their compensation and any over-allotment options held by them will be described in the applicable prospectus supplement. None of our securities may be sold without delivery of the applicable prospectus supplement describing the method and terms of the offering of those securities. See Plan of Distribution.

Our common stock is listed on the NASDAQ Global Market under the symbol MNOV. On September 21, 2017, the last reported sale price for our common stock was $5.88 per share. We will provide information in any applicable prospectus supplement regarding any listing of securities other than shares of our common stock on any securities exchange.

INVESTING IN OUR SECURITIES INVOLVES SIGNIFICANT RISKS. SEE RISK FACTORS BEGINNING ON PAGE 6 OF THIS PROSPECTUS AND IN THE APPLICABLE PROSPECTUS SUPPLEMENT BEFORE INVESTING IN ANY SECURITIES.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is October 2, 2017

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the United States Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this shelf process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offerings up to a total amount of $200,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may include a discussion of any risk factors or other special considerations that apply to those securities. The prospectus supplement may also add to, update or change information contained in the prospectus and, accordingly, to the extent inconsistent, information in this prospectus is superseded by the information in the prospectus supplement.

The prospectus supplement to be attached to the front of this prospectus may describe, as applicable: the terms of the securities offered; the initial public offering price; the price paid for the securities; net proceeds; and the other specific terms related to the offering of the securities.

You should only rely on the information contained or incorporated by reference in this prospectus and any prospectus supplement or issuer free writing prospectus relating to a particular offering. No person has been authorized to give any information or make any representations in connection with this offering other than those contained or incorporated by reference in this prospectus, any accompanying prospectus supplement and any related issuer free writing prospectus in connection with the offering described herein and therein, and, if given or made, such information or representations must not be relied upon as having been authorized by us. Neither this prospectus nor any prospectus supplement nor any related issuer free writing prospectus shall constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation. This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits.

You should read the entire prospectus and any prospectus supplement and any related issuer free writing prospectus, as well as the documents incorporated by reference into this prospectus or any prospectus supplement or any related issuer free writing prospectus, before making an investment decision. Neither the delivery of this prospectus or any prospectus supplement or any issuer free writing prospectus nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference herein or in any prospectus supplement or issuer free writing prospectus is correct as of any date subsequent to the date hereof or of such prospectus supplement or issuer free writing prospectus, as applicable. You should assume that the information appearing in this prospectus, any prospectus supplement or any document incorporated by reference is accurate only as of the date of the applicable documents, regardless of the time of delivery of this prospectus or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since that date.

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PROSPECTUS SUMMARY

This summary description about us and our business highlights selected information contained elsewhere in this prospectus or incorporated in this prospectus by reference. This summary does not contain all of the information you should consider before buying securities in this offering. You should carefully read this entire prospectus and any applicable prospectus supplement, including each of the documents incorporated herein or therein by reference, before making an investment decision. As used in this prospectus, we, us, MediciNova and our refer to MediciNova, Inc., a Delaware corporation.

About MediciNova, Inc.

Overview

We are a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of serious diseases with unmet medical needs and a commercial focus on the U.S. market. Our current strategy is to focus our development activities on MN-166 (ibudilast) for neurological disorders such as progressive multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS) and substance dependence and addiction (e.g., methamphetamine dependence, opioid dependence, and alcohol dependence), and MN-001 (tipelukast) for fibrotic diseases such as nonalcoholic steatohepatitis (NASH) and idiopathic pulmonary fibrosis (IPF). Our pipeline also includes MN-221 (bedoradrine) for the treatment of acute exacerbation of asthma and MN-029 (denibulin) for solid tumor cancers. We were incorporated in Delaware in September 2000.

We have incurred significant net losses since our inception. As of June 30, 2017, we had an accumulated deficit of $336.1 million and expect to incur substantial net losses for the next several years as we continue to develop certain of our existing product development programs, and over the long-term if we expand our research and development programs and acquire or in-license products, technologies or businesses that are complementary to our own.

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

Pursue the development of MN-166 (ibudilast) for multiple potential indications with the support of non-dilutive financings.

We intend to advance our diverse MN-166 (ibudilast) program through a combination of investigator-sponsored clinical trials, trials funded through government grants or other grants, and trials funded by us. In addition to providing drug supply and regulatory support, we are funding portions of the consortium-sponsored trials. For example, we have contributed financially to the Secondary and Primary Progressive Ibudilast NeuroNEXT Trial in Multiple Sclerosis (SPRINT-MS) Phase 2 clinical trial of MN-166 (ibudilast) for the treatment of progressive MS, which was primarily funded by the NIH. In addition, we are contributing financially to the ongoing clinical trial of MN-166 (ibudilast) for the treatment of ALS as well as the ongoing ALS / Biomarker study. We intend to pursue additional strategic alliances to help support further clinical development of MN-166 (ibudilast).

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Pursue the development of MN-001 for fibrotic diseases such as NASH and IPF.

We intend to advance development of MN-001 (tipelukast) through a variety of means, which may include investigator-sponsored trials with or without grant funding as well as trials funded by us.

Consider strategic partnerships with one or more leading pharmaceutical companies to complete late-stage product development and successfully commercialize our products.

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

We entered into an agreement to form a joint venture company with Zhejiang Medicine Co., Ltd. and Beijing Medfron Medical Technologies Co., Ltd. (formerly Beijing Make-Friend Medicine Technology Co., Ltd.) effective September 27, 2011. The joint venture agreement provides for the joint venture company, Zhejiang Sunmy Bio-Medical Co., Ltd. (Zhejiang Sunmy), to develop and commercialize MN-221 in China and search for additional compounds to develop. A sublicense would be required under which Zhejiang Sunmy would license MN-221 from us. In accordance with the joint venture agreement, in March 2012 we paid $680,000 for our 30% interest in Zhejiang Sunmy. The other parties to the joint venture agreement provided funding for their combined 70% interest. In December 2013, the Board of Directors of Zhejiang Sunmy agreed to amend the joint venture agreement to allow for the departure of Zhejiang Medicine Co., Ltd. subject to the approval of the government of the People s Republic of China. In August 2014, the Chinese government approved the amendment to the joint venture agreement to allow for the departure of Zhejiang Medicine Co., Ltd. and for Beijing Medfron Medical Technologies Co., Ltd. and MediciNova to each have a 50% interest in Zhejiang Sunmy. No additional capital was contributed by either remaining party. We have not entered into the sublicense of MN-221 with Zhejiang Sunmy as of the date of this prospectus.

Zhejiang Sunmy is a variable interest entity for which we are not the primary beneficiary as we do not have a majority of the board seats and we do not have power to direct or significantly influence the actions of the entity. We therefore account for the activities of Zhejiang Sunmy under the equity method whereby we absorb any loss or income generated by Zhejiang Sunmy according to our percentage ownership. At June 30, 2017, we reflect a long-term asset on our consolidated balance sheet which represents our investment in Zhejiang Sunmy, net of our portion of any generated loss or income. On July 24, 2017, the Company and Beijing Medfron Medical Technologies Co., Ltd. agreed to dissolve Zhejiang Sunmy, subject to approval by applicable Chinese regulatory authorities.

Upon completion of proof-of-concept Phase 2 clinical trials, we intend to discuss strategic alliances with leading pharmaceutical or biotechnology companies who seek late stage product candidates which could support further clinical development and product commercialization.

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

Corporate Information

We were incorporated in the State of Delaware in September 2000. Our principal executive offices are located at 4275 Executive Square, Suite 650, La Jolla, CA 92037. Our telephone number is (858) 373-1500. Our

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website is www.medicinova.com, which includes links to reports we have filed with the Securities and Exchange Commission, or SEC. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus and should not be considered part of this prospectus.

The Securities We May Offer

We may offer up to $200,000,000 of common stock, preferred stock, debt securities and warrants in one or more offerings and in any combination, including in units from time to time. This prospectus provides you with a general description of the securities we may offer. A prospectus supplement, which we will provide each time we offer securities, will describe the specific amounts, prices and terms of these securities.

Common Stock

Each holder of our common stock is entitled to one vote for each share on all matters to be voted upon by the stockholders, and there are no cumulative rights. Subject to any preferential rights of any outstanding preferred stock, holders of our common stock are entitled to receive ratably the dividends, if any, as may be declared from time to time by the board of directors out of funds legally available therefor. If there is a liquidation, dissolution or winding up of our company, holders of our common stock would be entitled to share in our assets remaining after the payment of liabilities and any preferential rights of any outstanding preferred stock. Our common stock is described in greater detail in this prospectus under Description of Capital Stock Common Stock.

Preferred Stock

Under the terms of our restated certificate of incorporation, our board of directors is authorized to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

Each series of preferred stock, if issued, will be more fully described in the particular prospectus supplement that will accompany this prospectus, including redemption provisions, rights in the event of our liquidation, dissolution or winding up, voting rights and rights to convert into common stock. We have no present plans to issue any shares of preferred stock, nor are any shares of our preferred stock presently outstanding. Preferred stock is described in greater detail in this prospectus under Description of Capital Stock Preferred Stock.

Debt Securities

The debt securities may be senior or subordinated in right of payment. For any particular debt securities we offer, the applicable prospectus supplement will describe the title and series of the debt securities, the aggregate principal amount and the original issue price; the ranking, whether senior or subordinated; the stated maturity; the redemption terms, if any; the rate or manner of calculating the rate and the payment dates for interest; the amount or manner of calculating the amount payable at maturity and whether that amount may be paid by delivering cash, securities or other property; the terms on which the debt securities may be convertible into or exchangeable for common stock or other securities of MediciNova, or any other entity, if any; and any other specific terms. We will issue the debt securities under an indenture, as described in Description of Debt Securities and Guarantees.

Warrants

We may issue warrants for the purchase of common stock, preferred stock or debt securities. We may issue warrants independently or together with other securities.

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The warrants will be evidenced by warrant certificates issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. In this prospectus, we have summarized certain general features of the warrants under Description of Warrants. We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement which includes this prospectus.

Units

We may issue units comprised of one or more of the other classes of securities issued by us as described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Units are described in greater detail in this prospectus under Description of Units.

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RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading Risk Factors in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under Item 1A, Risk Factors, in our most recent Annual Report on Form 10-K and in our Quarterly Reports on Form 10-Q, as well as any amendments thereto, all of which are incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future and by information contained in any prospectus supplement related to a particular offering. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

FORWARD-LOOKING STATEMENTS

This prospectus, each prospectus supplement and the information incorporated by reference in this prospectus and each prospectus supplement contain certain statements that constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The words anticipate, expect, believe, goal, plan, intend, estimate, may, will, and similar expressions and variat intended to identify forward-looking statements, but are not the exclusive means of identifying such statements. Those statements appear in this prospectus, any accompanying prospectus supplement and the documents incorporated herein and therein by reference, particularly in the sections entitled Prospectus Summary, Risk Factors, Management s Discussion and Analysis of Financial Condition and Results of Operations and Business, and include statements regarding the intent, belief or current expectations of the Company and management that are subject to known and unknown risks, uncertainties and assumptions.

This prospectus, any prospectus supplement and the information incorporated by reference in this prospectus and any prospectus supplement also contain statements that are based on the current expectations of our company and management. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and that actual results may differ materially from those projected in the forward-looking statements as a result of various factors.

Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. The risks, uncertainties and assumptions that could cause actual results to differ materially from those anticipated or implied in our forward-looking statements include, but are not limited to, those set forth above under the section entitled Risk Factors and in the applicable prospectus supplement, together with all of the other information contained in or incorporated by reference into the prospectus supplement or appearing or incorporated by reference into this prospectus.

Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements contained herein after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

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RATIO OF EARNINGS TO FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

The following table sets forth our ratio of earnings to fixed charges and preferred stock dividends on a historical basis for the periods indicated. The ratios are calculated by dividing earnings by the fixed charges. You should read these ratios in connection with our consolidated financial statements, including the notes to those statements, incorporated by reference in this prospectus. Our net losses were insufficient to cover fixed charges in periods where applicable of the periods presented. Because of these deficiencies, the ratio information is not applicable for such periods.

	Fiscal Year Ended December 31,					Six Months Ended June 30,
	2012	2013	2014	2015	2016	2017
Ratio of earnings to fixed charges and preferred stock dividends (1)	N/A	N/A	N/A	N/A	N/A	N/A

(1) For the purposes of computing ratio of earnings to fixed charges, earnings consist of loss before income taxes plus fixed charges. Fixed charges consist of interest charges. Earnings for the six months ended June 30, 2017 and the years ended December 31, 2016, 2015, 2014, 2013 and 2012 were insufficient to cover fixed charges by $5.8 million, $10.9 million, $8.8 million, $9.2 million, $4.0 million and $10.9 million, respectively.

As of the date of this prospectus, we have not previously paid dividends on any shares of preferred stock, and consequently, our ratio of earnings to preferred share dividends and ratio of earnings to fixed charges would be identical.

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USE OF PROCEEDS

Unless otherwise indicated in the prospectus supplement, we will use the net proceeds from the sale of securities offered by this prospectus for general corporate purposes, which may include, among other purposes, working capital, capital expenditures, other corporate expenses and acquisitions of assets, licenses, products, technologies or businesses. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business. As a result, unless otherwise indicated in the prospectus supplement, our management will have broad discretion to allocate the net proceeds of the offerings. Pending their ultimate use, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing instruments.

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DESCRIPTION OF SECURITIES WE MAY OFFER

We may offer under this prospectus up to $200,000,000 of common stock, preferred stock, debt securities and warrants in one or more offerings and in any combination, including in units from time to time as described below. This prospectus provides you with a general description of the securities we may offer. A prospectus supplement, which we will provide each time we offer securities, will describe the specific amounts, prices and terms of these securities. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities.

DESCRIPTION OF CAPITAL STOCK

The following information describes our common stock and preferred stock, as well as certain provisions of our restated certificate of incorporation and amended and restated bylaws. This description is only a summary. You should also refer to our restated certificate of incorporation and amended and restated bylaws, which have been filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part.

General

Our authorized capital stock consists of 100,000,000 shares of common stock, with a $0.001 par value per share, and 3,000,000 shares of preferred stock, with a $0.01 par value per share, all of which shares of preferred stock are undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time. As of September 20, 2017, there were 35,345,936 shares of common stock issued and outstanding, held of record by 22 stockholders, although we believe that there may be a significantly larger number of beneficial owners of our common stock. We derived the number of stockholders by reviewing the listing of outstanding common stock recorded by our transfer agent as of September 20, 2017.

Common Stock

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. The holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the board of directors out of funds legally available, subject to preferences that may be applicable to preferred stock, if any, then outstanding. In the event of a liquidation, dissolution or winding up of our company, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and non-assessable.

The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Our common stock is listed on the NASDAQ Global Market under the symbol MNOV. The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, New York 11219, and its telephone number is (718) 921-8200.

Preferred Stock

The following description of preferred stock and the description of the terms of any particular series of preferred stock that we choose to issue hereunder and that will be set forth in the related prospectus supplement are not complete. These descriptions are qualified in their entirety by reference to our restated certificate of incorporation and the certificate of designation relating to any series. The rights, preferences, privileges and

restrictions of the preferred stock of each series will be fixed by the certificate of designation relating to that series. The prospectus supplement also will contain a description of certain United States federal income tax consequences relating to the purchase and ownership of the series of preferred stock that is described in the prospectus supplement.

Under the terms of our restated certificate of incorporation, our board of directors is authorized to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock. There are no restrictions presently on the repurchase or redemption of any shares of our preferred stock.

The prospectus supplement for a series of preferred stock will specify:

the maximum number of shares;

the designation of the shares;

the annual dividend rate, if any, whether the dividend rate is fixed or variable, the date or dates on which dividends will accrue, the dividend payment dates, and whether dividends will be cumulative;

the price and the terms and conditions for redemption, if any, including redemption at our option or at the option of the holders, including the time period for redemption, and any accumulated dividends or premiums;

the liquidation preference, if any, and any accumulated dividends upon the liquidation, dissolution or winding up of our affairs;

any sinking fund or similar provision, and, if so, the terms and provisions relating to the purpose and operation of the fund;

the terms and conditions, if any, for conversion or exchange of shares of any other class or classes of our capital stock or any series of any other class or classes, or of any other series of the same class, or any other securities or assets, including the price or the rate of conversion or exchange and the method, if any, of adjustment;

the voting rights; and

any or all other preferences and relative, participating, optional or other special rights, privileges or qualifications, limitations or restrictions.

The issuance of preferred stock will affect, and may adversely affect, the rights of holders of common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of common stock until the board of directors determines the specific rights attached to that preferred stock. The effects of issuing preferred stock could include one or more of the following:

restricting dividends on the common stock;

diluting the voting power of the common stock;

impairing the liquidation rights of the common stock; or

delaying or preventing changes in control or management of our company.

We have no present plans to issue any shares of preferred stock nor are any shares of our preferred stock presently outstanding. Preferred stock will be fully paid and nonassessable upon issuance.

Effect of Certain Provisions of our Restated Certificate of Incorporation and Bylaws

Provisions of our restated certificate of incorporation and our amended and restated bylaws could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which

are summarized below, may have the effect of discouraging takeover bids. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Undesignated Preferred Stock. The authority of our board of directors to issue preferred stock could potentially be used to discourage attempts by third parties to obtain control of our company through a merger, tender offer, proxy contest, or otherwise by making it more difficult or more costly to obtain control of our company. Our board of directors may issue preferred stock with voting rights or conversion rights that, if exercised, could adversely affect the voting power of the holders of common stock.

Limits on Ability of Stockholders to Call a Special Meeting. Our restated certificate of incorporation, as amended and our amended and restated bylaws generally provide that special meetings of our stockholders may be called only by the Chairman of the board of directors, our Chief Executive Officer or by resolution of the board of directors. Stockholders are not permitted to call a special meeting or require our board of directors to call a special meeting.

Limits on Stockholder Action by Written Consent. Any action required or permitted to be taken by the stockholders must be taken at a duly called annual or special meeting and not by written consent.

Classified Board of Directors. Our board of directors is divided into three classes, one class of which is elected each year by our stockholders. The directors in each class serve for a three-year term. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals. Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee of our board of directors. However, our amended and restated bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer s own slate of directors or otherwise attempting to obtain control of our company.

No Cumulative Voting. The Delaware General Corporation Law provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless our restated certificate of incorporation provides otherwise. Our restated certificate of incorporation and amended and restated bylaws do not expressly provide for cumulative voting.

Size of Board and Vacancies. Our restated certificate provides that the number of directors on our board of directors is fixed exclusively by our board of directors. Newly created directorships resulting from any increase in our authorized number of directors or any vacancies in the board of directors resulting from death, resignation or other cause (including removal from office by a vote of the stockholders) may be filled only by a majority vote of the directors based on the total number of designated directors, though less than a quorum, or by the sole remaining director. The directors so chosen shall hold office for a term expiring at the next annual meeting of stockholders, and until their respective successors are elected, except in the case of the death, incapacity, resignation or removal of any director.

Amendments of Governance Documents. Our restated certificate of incorporation provides that the affirmative vote of the holders of at least sixty-six and two-thirds ($66\ ^2/_3\%$) of our voting stock then outstanding is required to amend certain provisions relating to the number, term, election and removal of our directors, the filling of our board

vacancies, the calling of special meetings of stockholders, and the indemnification of directors.

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Limitations on Liability, Indemnification of Officers and Directors and Insurance.

The Delaware General Corporation Law (DGCL) authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breaches of directors fiduciary duties as directors, subject to certain exceptions, by provision of the corporation s certificate of incorporation. Our restated certificate of incorporation contains a provision eliminating the personal liability of our directors to the fullest extent permitted by the DGCL. In addition, restated certificate of incorporation includes provisions that require us to indemnify, to the fullest extent allowable under the DGCL, our directors and officers for monetary damages for actions taken as our director or officer, or for serving at our request as a director or officer or another position at another corporation or enterprise, as the case may be. Our restated certificate of incorporation also provides that we must advance reasonable expenses to our directors and officers, subject to our receipt of an undertaking from the indemnified party as may be required under the DGCL.

We are also expressly authorized by the DGCL to carry directors and officers insurance to protect us, our directors, officers and certain employees for some liabilities. The limitation of liability and indemnification and advancements provisions in our restated certificate of incorporation and amended and restated bylaws, respectively, may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. However, the provision in our restated certificate of incorporation eliminating the personal liability of our directors to the fullest extent permitted by the DGCL does not limit or eliminate our rights, or those of any stockholder, to seek non-monetary relief such as injunction or rescission in the event of a breach of a director s fiduciary duties, including the duty of care. The indemnification provisions will not alter the liability of directors under the federal securities laws. In addition, your investment may be adversely affected to the extent that, in a derivative or direct suit, we pay the litigation costs of our directors and officers and the costs of settlement and damage awards against directors and officers pursuant to these indemnification and advancements provisions.

We expect to maintain standard policies of insurance that provide coverage (i) to our directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act and (ii) to us with respect to indemnification and advancements payments that we may make to such directors and officers.

We have entered into an indemnification agreement with each of our officers and directors. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We believe that the limitation of liability provision in our restated certificate of incorporation and the indemnification agreements will facilitate our ability to continue to attract and retain qualified individuals to serve as directors and officers.

Insofar as the above described indemnification provisions permit indemnification of directors, officers or persons controlling us for liability arising under the Securities Act, we understand that in the opinion of the SEC, this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date on which the person became an interested stockholder unless:

prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

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upon completion 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, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 ⅔% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, lease, exchange, mortgage, transfer, pledge or other disposition of 10% or more of either the assets or 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 beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines interested stockholder as an entity or person who, together with affiliates and associates, beneficially owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

The provisions of Delaware law and our restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions may make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Registration Rights

As of September 20, 2017, the holders of approximately 1,921,517 shares of our common stock are entitled to contractual rights to require us to register those shares under the Securities Act of 1933, as amended (the Securities Act). These rights are provided under the terms of our amended and restated registration rights agreement. We will pay all expenses relating to any such registration, other than underwriting discounts and selling commissions. The registration rights terminate with respect to any holder if all of the following conditions are met: (a) as reflected on our books and records, such holder (together with its affiliates) holds less than 1% of our outstanding common stock (on an as-if-converted to common stock basis), (b) our securities trade on a national securities exchange or list on a national automatic quotation system, in each case, located in the United States, and (c) all shares of common stock

issued or issuable upon conversion of the registrable securities held by such holder (and its affiliates) either (i) may be sold pursuant to Rule 144 promulgated under the Securities Act during any ninety (90) day period or (ii) have ceased to be outstanding.

Piggyback Registration Rights. If we propose to register any of our securities under the Securities Act either for our own account or for the account of other stockholders, the holders of shares having registration rights will,

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subject to certain exceptions, be entitled to include their shares in our registration statement. These piggyback registration rights are subject to specified conditions and limitations, including the right of the underwriters to limit the number of shares included in any such registration statement under certain circumstances, but not below 25% of the total number of shares covered by the registration statement without the consent of more than 50% of the holders of registrable securities.

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DESCRIPTION OF DEBT SECURITIES AND GUARANTEES

We may issue debt securities in one or more distinct series. This section summarizes the material terms of the debt securities that are expected to be common to all series. Most of the financial terms and other specific material terms, as well as any material U.S. federal income tax consequences, of any series of debt securities that we offer will be described in a prospectus supplement or term sheet to be attached to this prospectus. Since the terms of specific debt securities may differ from the general information provided below, you should read both this prospectus and the relevant prospectus supplement or term sheet and rely on information in the prospectus supplement or term sheet that supersedes any contrary or inconsistent information below.

As required by federal law for all bonds and notes of companies that are publicly offered, the debt securities will be governed by a document called an indenture. An indenture is a contract between us and a financial institution acting as trustee on your behalf. The trustee has two main roles. First, the trustee can enforce your rights against us if we default. There are some limitations on the extent to which the trustee acts on your behalf, described in the second paragraph under Events of Default. Second, the trustee performs certain administrative duties for us.

Senior or subordinated debt securities will be issued by us under an indenture or indentures dated as of , 20 , as supplemented from time to time (the indenture), between us, as issuer, and a trustee identified in the relevant prospectus supplement (the trustee). The debt securities may be guaranteed by one or more of our subsidiaries.

The indenture will be subject to and governed by the Trust Indenture Act of 1939, as amended (the TIA). The terms we, our, us, and MediciNova when used to refer to an issuer of securities, means MediciNova, Inc.

Because this section is a summary, it does not describe every aspect of the debt securities and the indenture. We urge you to read the indenture because it, and not this description, defines your rights as a holder of debt securities. For example, in this section, we use capitalized words to signify terms that are specifically defined in the indenture. Some of the definitions are repeated in this prospectus, or in the relevant prospectus supplement, but for the rest you will need to read the indenture. See Where You Can Find More Information for information on how to locate the indenture and any supplemental indentures that may be filed.

General Provisions of the Indenture

Unless otherwise specified in a prospectus supplement or term sheet for a particular series, the debt securities covered by this prospectus will be direct, unsecured obligations of MediciNova. Any senior securities will be unsecured and will rank equally with all other unsecured and unsubordinated indebtedness of MediciNova. Any subordinated securities will be unsecured and will be subordinated in right of payment to the prior payment in full of the senior indebtedness of MediciNova, as more fully described in a prospectus supplement or term sheet.

The indenture provides that any debt securities proposed to be sold under this prospectus and an attached prospectus supplement or term sheet (offered debt securities) and any debt securities issuable upon the exercise of debt warrants or upon conversion or exchange of other offered securities (underlying debt securities), as well as other debt securities, may be issued under the indenture in one or more series. Any secured indebtedness of ours will rank ahead of the debt securities to the extent of the value of the assets securing such indebtedness.

You should read the prospectus supplement or term sheet for the material terms of the offered debt securities and any underlying debt securities, including the following:

the title of the debt securities and whether the debt securities will be senior securities or subordinated securities of MediciNova;

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the total principal amount of the debt securities of the series and any limit on such total principal amount;

if not the principal amount of the debt securities, the portion of the principal amount payable upon acceleration of the maturity of the debt securities or how this portion will be determined;

the date or dates, or how the date or dates will be determined or may be extended, when the principal of the debt securities will be payable;

the interest rate or rates, which may be fixed or variable, that the debt securities will bear, if any, or how the rate or rates will be determined, the date or dates from which any interest will accrue or how the date or dates will be determined, the interest payment dates, any record dates for these payments, whether payments of interest will be made in cash or in kind and the basis upon which interest will be calculated if other than that of a 360-day year of twelve 30-day months;

any optional redemption provisions;

any sinking fund or other provisions that would obligate us to repurchase or otherwise redeem the debt securities;

the form in which we will issue the debt securities and whether we will have the option of issuing debt securities in certificated form;

if other than U.S. dollars, the currency or currencies in which the debt securities are denominated and/or payable;

whether the amount of payments of principal, premium or interest, if any, on the debt securities will be determined with reference to an index, formula or other method (which index, formula or method may be based, without limitation, on one or more currencies, commodities, equity indices or other indices), and how these amounts will be determined;

the place or places, if any, other than or in addition to The City of New York, of payment, transfer, conversion and/or exchange of the debt securities;

if other than minimum denominations of $2,000 or any integral multiple of $1,000 above the minimum denomination in the case of registered securities issued in certificated form, the denominations in which the offered debt securities will be issued;

if the provisions of Article Fourteen of the indenture described under defeasance are not applicable and any provisions in modification of, in addition to or in lieu of any of these provisions;

whether and under what circumstances we will pay additional amounts, as contemplated by Section 1010 of the indenture, in respect of any tax, assessment or governmental charge and, if so, whether we will have the option to redeem the debt securities rather than pay the additional amounts (and the terms of this option);

whether the debt securities are subordinated and the terms of such subordination;

any provisions granting special rights to the holders of the debt securities upon the occurrence of specified events;

any changes or additions to the Events of Default or covenants contained in the applicable indenture;

whether the debt securities will be convertible into or exchangeable for any other securities and the applicable terms and conditions;

whether the debt securities are guaranteed; and

any other material terms of the debt securities.

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For purposes of this prospectus, any reference to the payment of principal of or premium or interest, if any, on the debt securities will include additional amounts if required by the terms of the debt securities.

The indenture does not limit the amount of debt securities that may be issued thereunder from time to time. Debt securities issued under the indenture when a single trustee is acting for all debt securities issued under the indenture are called the indenture securities. The indenture also provides that there may be more than one trustee thereunder, each with respect to one or more different series of indenture securities. See Resignation of Trustee below. At a time when two or more trustees are acting under the indenture, each with respect to only certain series, the term indenture securities means the one or more series of debt securities with respect to which each respective trustee is acting. In the event that there is more than one trustee under the indenture, the powers and trust obligations of each trustee described in this prospectus will extend only to the one or more series of indenture securities for which it is trustee. If two or more trustees are acting under the indenture, then the indenture securities for which each trustee is acting would be treated as if issued under separate indentures.

The indenture does not contain any provisions that give you protection in the event we issue a large amount of debt, we repurchase a significant amount of equity or effect a recapitalization, or we are acquired by another entity.

We refer you to the applicable prospectus supplement or term sheet for information with respect to any deletions from, modifications of or additions to the Events of Default or our covenants that are described below, including any addition of a covenant or other provision providing event risk or similar protection.

We have the ability to issue indenture securities with terms different from those of indenture securities previously issued and, without the consent of the holders thereof, to reopen a previous issue of a series of indenture securities and issue additional indenture securities of that series unless the reopening was restricted when that series was created. Any additional indenture securities, together with all other outstanding indenture securities of that series, will constitute a single series of indenture securities under the indenture.

Unless otherwise specified in the applicable prospectus supplement or term sheet, the debt securities will be denominated in U.S. dollars and all payments on the debt securities will be made in U.S. dollars.

Payment of the purchase price of the debt securities must be made in immediately available funds.

The authorized denominations of debt securities denominated in U.S. dollars will be a minimum denomination of $2,000 and integral multiples of $1,000 above the minimum denomination. The authorized denominations of foreign currency notes will be set forth in the applicable prospectus supplement or term sheet.

Interest and Interest Rates

Each debt security will begin to accrue interest from the date it is originally issued. The related prospectus supplement or term sheet will describe the method of determining the interest rate.

Interest on the debt securities other than in global form denominated in U.S. dollars will be paid by check mailed on an interest payment date to the persons entitled thereto to the addresses of such holders as they appear in the security register or, at our option, by wire transfer to a bank account maintained by the holder. The principal of, and premium, if any, and, if other than an interest payment date, interest on debt securities denominated in U.S. dollars, together with interest accrued and unpaid thereon, due on the maturity date will be paid in immediately available funds upon surrender of such debt securities at the corporate trust office of the trustee in The City of New York, or, at our option, by wire transfer of immediately available funds to an account with a bank designated at least 15 calendar days prior to

the maturity date by the applicable registered holder, provided the particular bank has appropriate facilities to receive these payments and the particular note is presented and surrendered at the office or agency maintained by us for this purpose in the Borough of Manhattan, The City of New York, in time for the trustee to make these payments in accordance with its normal procedures.

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Payment and Paying Agents

We will pay interest to the person listed in the trustee s records as the owner of the debt security at the close of business on a particular day in advance of each regularly scheduled date for interest, even if that person no longer owns the debt security on the interest due date. That day, typically set at a date approximately two weeks prior to the interest due date, is called the record date. Because we will pay all the interest for an interest period to the holders on the record date, holders buying and selling debt securities must work out between themselves the appropriate purchase price. The most common manner is to adjust the sales price of the debt securities to prorate interest fairly between buyer and seller based on their respective ownership periods within the particular interest period. This prorated interest amount is called accrued interest.

Payments on Global Securities

We will make payments on a global security in accordance with the applicable policies of the depositary as in effect from time to time. Under those policies, we will make payments directly to the depositary, or its nominee, and not to any indirect holders who own beneficial interests in the global security. An indirect holder s right to those payments will be governed by the rules and practices of the depositary and its participants.

Payments on Certificated Debt Securities

We will make payments on a certificated debt security as follows. We will pay interest that is due on an interest payment date by check mailed on the interest payment date to the holder at his or her address shown on the trustee s records as of the close of business on the regular record date. We will make payments of principal and premium, if any, duly and punctually to the office of the trustee.

Alternatively, if the holder asks us to do so, we may pay any amount that becomes due on the debt security by wire transfer of immediately available funds to an account at a bank in New York City, on the due date. To request payment by wire, the holder must give the trustee or other paying agent appropriate transfer instructions at least 15 calendar days before the requested wire payment is due. In the case of any interest payment due on an interest payment date, the instructions must be given by the person who is the holder on the relevant regular record date. Any wire instructions, once properly given, will remain in effect unless and until new instructions are given in the manner described above. In addition, see the description under Interest and Interest Rates.

Material Covenants

Consolidation, Merger, Sale or Conveyance. The indenture provides that we may not consolidate with or merge into any other entity or convey, transfer or lease our properties and assets as an entirety or substantially as an entirety to any entity, unless:

- we are the continuing corporation or the successor or transferee entity, if other than us, is a corporation, partnership, limited liability company or trust organized and existing under the laws of the United States, any state thereof or the District of Columbia and expressly assumes our obligations under the debt securities and the indenture pursuant to a supplemental indenture executed and delivered to the trustee, in form reasonably satisfactory to the trustee, the due and punctual payment of the principal of, any premium on and any interest on, all of our outstanding debt securities and the performance of every covenant and obligation in the indenture to be performed or observed by us;

immediately after giving effect to the transaction, no Event of Default, as defined in the indenture, and no event which, after notice or lapse of time or both, would become an Event of Default, has happened and is continuing; and

certain other conditions specified in the indenture are met, which may include our delivery to the trustee of an officers certificate and an opinion of counsel, each in the form required by the

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indenture and stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture complies with the foregoing provisions relating to such transaction.

In case of any such consolidation, merger, conveyance or transfer, the successor entity will succeed to and be substituted for us as obligor on the debt securities with the same effect as if it had been named in the indenture as issuer and, except in the case of a lease, all of our obligations under the indenture will terminate.

Restrictions on Liens

We will not, and will not permit any Restricted Subsidiary to, create, incur, issue, assume or guarantee any indebtedness for money borrowed secured by a Mortgage (Secured Debt) upon any Operating Property or any shares of stock or indebtedness for borrowed money of any Restricted Subsidiary, whether owned at the date of the indenture or thereafter acquired, without effectively providing concurrently that the debt securities of each series then outstanding under the indenture are secured equally and ratably with or, at our option, prior to such Secured Debt so long as such Secured Debt shall be so secured.

The foregoing restriction shall not apply to, and there shall be excluded from Secured Debt in any computation under such restriction, Secured Debt secured by:

(1) mortgages on any property, shares of stock or indebtedness for borrowed money of any corporation existing at the time such corporation becomes a Restricted Subsidiary;

(2) mortgages on property or shares of stock existing at the time of acquisition of such property or stock by us or a Restricted Subsidiary or existing as of the original date of the applicable indenture;

(3) mortgages to secure the payment of all or any part of the price of acquisition, construction or improvement of such property or stock by us or a Restricted Subsidiary, or to secure any Secured Debt incurred by us or a Restricted Subsidiary, prior to, at the time of, or within 360 days after, the later of the acquisition or completion of construction (including any improvements on an existing property), which Secured Debt is incurred for the purpose of financing all or any part of the purchase price thereof or construction of improvements thereon; *provided*, *however*, that, in the case of any such acquisition, construction or improvement, the Mortgage shall not apply to any property theretofore owned by us or a Restricted Subsidiary, other than, in the case of any such construction or improvement, any theretofore substantially unimproved real property on which the property or improvement so constructed is located;

(4) mortgages securing Secured Debt of a Restricted Subsidiary owing to us or to another Restricted Subsidiary;

(5) mortgages on property of a corporation existing at the time such corporation is merged into or consolidated with us or a Restricted Subsidiary or at the time of a sale, lease or other disposition of the properties of a corporation or firm as an entirety or substantially as an entirety to us or a Restricted Subsidiary;

(6) mortgages on property of us or a Restricted Subsidiary in favor of the United States or any state thereof, or any department, agency or instrumentality or political subdivision of the United States or any state thereof, or in favor of any other country or any political subdivision thereof, or any department, agency or instrumentality of such country or political subdivision, to secure partial progress, advance or other payments pursuant to any contract or statute or to secure any indebtedness incurred for the purpose of financing all or any part of the purchase price or the cost of construction of the property subject to such Mortgages;

(7) any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part of any Mortgage referred to in clauses (1) through (6) above and (9) below; provided,

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however, that the principal amount of Secured Debt so secured shall not exceed the principal amount of Secured Debt so secured at the time of such extension, renewal or replacement, and that such extension, renewal or replacement shall be limited to all or a part of the property which secured the Mortgage so extended, renewed or replaced (plus improvements and construction on such property);

(8) mortgages upon any Operating Property, or any transfer or disposition of any Operating Property, that is created or implemented as a necessary component of a bond for title transaction, payment in lieu of tax agreement or other tax incentive vehicle designed to provide us or any Subsidiary with certain ad valorem property tax savings or other incentive savings; or

(9) mortgages to secure Hedging Obligations entered into in the ordinary course of business to purchase any raw material or other commodity or to hedge risks or reduce costs with respect to the interest rate, currency or commodity exposure of us or any Restricted Subsidiary of ours and not for speculative purposes.

Notwithstanding the foregoing, we and any one or more our Restricted Subsidiaries may, however, without securing any debt securities, create, incur, issue, assume or guarantee Secured Debt secured by a Mortgage if, after giving effect to the transaction, the aggregate of the Secured Debt then outstanding (not including Secured Debt permitted under the above exceptions) does not exceed 15% of our Consolidated Net Tangible Assets as shown on our financial statements as of the end of the fiscal year preceding the date of determination.

Capital Lease Obligations means indebtedness represented by obligations under a lease that is required to be capitalized for financial reporting purposes in accordance with generally accepted accounting principles. The amount of indebtedness will be the capitalized amount of the obligations determined in accordance with generally accepted accounting principles consistently applied.

Commodity Agreement means any forward contract, commodity swap, commodity option or other financial agreement or arrangement relating to, or the value of which is dependent upon fluctuations in commodity prices.

Consolidated Net Tangible Assets means our consolidated total assets as reflected in our most recent balance sheet preceding the date of determination prepared in accordance with GAAP consistently applied, less

current liabilities, excluding current maturities of long-term debt and Capital Lease Obligations, and

goodwill, tradenames, trademarks, patents, unamortized debt discount and expense and other similar intangible assets prepared in accordance with GAAP, but excluding any investments in permits or licenses issued, granted or approved by the Federal Communications Commission.

Currency Agreement means any foreign exchange contract, currency swap agreement or other similar agreement with respect to currency values.

GAAP means U.S. generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as have been approved by a significant segment of the accounting profession that are applicable at the date of any relevant calculation or determination.

Hedging Obligations of any Person means the obligations of such Person pursuant to any Interest Rate Agreement, Currency Agreement, Commodity Agreement or derivative contract entered into to hedge interest rate risk, currency exchange risk, and commodity price risk.

Interest Rate Agreement means any interest rate swap agreement, interest rate cap agreement or other financial agreement or arrangement with respect to exposure to interest rates.

Mortgage or Mortgages means any mortgage, pledge, lien, security interest or other encumbrances upon any Operating Property or any shares of stock or on indebtedness for borrowed money of any Restricted Subsidiary (whether such Operating Property, shares of stock or indebtedness for borrowed money are now owned or hereafter acquired).

Operating Property means each plant or facility of ours or a Restricted Subsidiary located within the United States, except any such plant or facility which our Board of Directors by resolution reasonably determines not to be of material importance to the total business conducted by us and our Restricted Subsidiaries.

Person means any individual, corporation, partnership, joint venture, trust, unincorporated organization or government or any agency or political subdivision thereof.

Restricted Subsidiary means any Subsidiary of us (i) substantially all of the property of which is located, or substantially all of the business of which is carried on, within the United States, and (ii) which owns or is the lessee of any Operating Property, other than any Subsidiary of us that we designate as an unrestricted subsidiary in accordance with the procedure and criteria set forth in a supplemental indenture.

Subsidiary means (1) any corporation of which at least a majority of the outstanding stock having by the terms thereof ordinary voting power for the election of directors of such corporation (irrespective of whether or not at the time stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time directly or indirectly owned by the us or by one or more other Subsidiaries and (2) any other Person in which we or one or more other Subsidiaries, directly or indirectly, at the date of determination, (x) own at least a majority of the outstanding ownership interests or (y) have the power to elect or direct the election of, or to appoint or approve the appointment of, at least the majority of the directors, trustees or managing members of, or other persons holding similar positions with, such Person.

Restrictions on Sale and Leaseback Transactions

We will not, and will not permit any Restricted Subsidiary to, enter into any Sale and Leaseback Transaction unless:

(1) we or such Restricted Subsidiary would be entitled to create, incur, issue, assume or guarantee indebtedness secured by a Mortgage upon such property at least equal in amount to the Attributable Debt in respect of such arrangement without equally and ratably securing the debt securities; *provided*, *however*, that from and after the date on which such arrangement becomes effective, the Attributable Debt in respect of such arrangement shall be deemed, for all purposes described under Restrictions on Liens above, to be Secured Debt subject to the provisions of the covenants described therein;

(2) since the original date of the indenture and within a period commencing twelve months prior to the consummation of such Sale and Leaseback Transaction and ending twelve months after the consummation of such Sale and Leaseback Transaction, we or any Restricted Subsidiary, as the case may be, has expended or will expend for the Operating Property an amount equal to (A) the net proceeds of such Sale and Leaseback Transaction, and we elect to designate such amount as a credit against such Sale and Leaseback Transaction, or (B) a part of the net proceeds of such Sale and Leaseback Transaction and we elect to designate such amount as a credit against such Sale and Leaseback Transaction and apply an amount equal to the remainder of the net proceeds as provided in the following paragraph; or

(3) such Sale and Leaseback Transaction does not come within the exceptions provided by the first paragraph above under Restrictions on Sale and Leaseback Transactions and we do not make the election permitted by the second paragraph under Restrictions on Sale and Leaseback Transactions or make such election only as to a part of such net proceeds, in either of which events we shall apply an

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amount in cash equal to the Attributable Debt in respect of such arrangement (less any amount elected under the second paragraph under Restrictions on Sale and Leaseback Transactions) to the retirement, within 360 days of the effective date of any such arrangement, of indebtedness for borrowed money of we or any Restricted Subsidiary (other than indebtedness for borrowed money of MediciNova which is subordinated to the debt securities) which by its terms matures at or is extendible or renewable at the sole option of the obligor without requiring the consent of the obligees to a date more than twelve months after the date of the creation of such indebtedness for borrowed money (it being understood that such retirement may be made by prepayment of such indebtedness for borrowed money, if permitted by the terms thereof, as well as by payment at maturity, and that at our option and pursuant to the terms of the indenture, such indebtedness may include the debt securities).

Attributable Debt under the indenture means the present value (discounted at the interest rate inherent in the lease, compounded annually) of the obligation of a lessee for net rental payments during the remaining term of any lease (including any period for which such lease has been extended).

Sale and Leaseback Transaction means any arrangement with any person providing for the leasing by us or any Restricted Subsidiary of any Operating Property, whether such Operating Property is now owned or hereafter acquired (except for temporary leases for a term, including renewals at the option of the lessee, of not more than three years and except for leases between us and a Restricted Subsidiary or between Restricted Subsidiaries), which property has been or is to be sold or transferred by us or such Restricted Subsidiary to such person with the intention of taking back a lease of such property.

Events of Default

An event of default with respect to the debt securities of any series is defined in the indenture as:

(a) default for 30 days in payment of any interest on the debt securities of such series when it becomes due and payable;

(b) default in payment of principal of or any premium on the debt securities of such series at maturity or upon redemption or repayment when the same becomes due and payable;

(c) default in the deposit of any principal payment into a sinking fund, when and as due by the terms of any debt security of such series;

(d) default by us in the performance, or breach, of any other covenant contained in the applicable indenture for the benefit of the debt securities of such series that has not been remedied by the end of a period of 90 days after notice is given as specified in the indenture;

(e) default in the payment of principal or an acceleration of other indebtedness for borrowed money of MediciNova where the aggregate principal amount with respect to which the default or acceleration has occurred exceeds $25 million and such acceleration has not been rescinded or annulled or such indebtedness repaid within a period of 30 days after written notice to us by the trustee or to us and the trustee by the

holders of at least 25% in principal amount of all outstanding debt securities under the indenture, provided that if any such default is cured, waived, rescinded or annulled, then the event of default by reason thereof would be deemed not to have occurred; and

(f) certain events of bankruptcy, insolvency and reorganization of MediciNova.

The indenture provides that:

if an event of default described in clause (a), (b), (c), (d) or (e) above has occurred and is continuing, either the trustee or the holders of not less than 25% in aggregate principal amount of the debt securities of the applicable series may declare the principal amount (or, if any of the debt securities of that series are original issue discount securities or indexed securities, such portion of

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the principal amount as may be specified in the terms of that series) of the debt securities then outstanding, and any accrued and unpaid interest through the date of such declaration, to be due and payable immediately;

upon certain conditions such declarations may be annulled and past defaults (except for defaults in the payment of principal of, or any premium or interest on the debt securities and in compliance with certain covenants) may be waived by the holders of a majority in aggregate principal amount of the debt securities of the applicable series; and

if an event of default described in clause (f) occurs and is continuing, then the principal amount of all debt securities issued under the indenture, together with any accrued interest through the occurrence of such event, shall become and be due and payable immediately, without any declaration or other act by the trustee or any other holder.

Under the indenture, the trustee must give to the holders of debt securities of any series notice of all uncured defaults known to it with respect to the debt securities of such series within 90 days after such a default occurs (the term default to include the events specified above without notice or grace periods); provided that, except in the case of default in the payments of principal of or any premium or interest on any of the debt securities of such series, the trustee will be protected in withholding such notice if it in good faith determines that the withholding of such notice is in the best interest of the holders of such debt securities.

No holder of any debt securities may institute any action under the indenture unless:

such holder has given the trustee written notice of a continuing event of default with respect to the debt securities;

the holders of not less than 25% in aggregate principal amount of the debt securities of the applicable series have requested the trustee to institute proceedings in respect of such event of default;

such holder or holders have offered the trustee such reasonable indemnity as the trustee may require;

the trustee has failed to institute an action for 60 days thereafter; and

no inconsistent direction has been given to the trustee during such 60-day period by the holders of a majority in aggregate principal amount of such debt securities.

The holders of a majority in aggregate principal amount of the debt securities of any series will have the right, subject to certain limitations, 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 such series. The indenture provides that, if an event of default occurs and is continuing, the trustee, in exercising its rights and powers under the indenture, will be required to use the degree of care of a prudent man in the conduct of his own affairs. The indenture further provides that the trustee shall not be required to expend or risk its own funds or

otherwise incur any financial liability in the performance of any of its duties under the indenture unless it has reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is reasonably assured to it.

We must furnish to the trustee within 120 days after the end of each fiscal year a statement signed by an officer thereof to the effect that a review of our activities during such year and our performance under the indenture and the terms of the debt securities has been made, and, to the knowledge of the signatories based on such review, we have complied with all conditions and covenants of the indenture or, if we are in default, specifying such default.

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Modification of the Indenture

We and the trustee may, without the consent of the holders of the debt securities issued under such indenture, enter into supplemental indentures for, among others, one or more of the following purposes:

- to evidence the succession of another corporation to us and the assumption by such successor of its obligations under the indenture and the debt securities;
- to add covenants of MediciNova or surrender any of its rights, or add any rights for the benefit of the holders of debt securities;
- to cure any ambiguity, omission, defect or inconsistency in such indenture;
- to establish the form or terms of any other series of debt securities, including any subordinated securities;
- to comply with requirements of the SEC in order to maintain the qualification of the indenture under the Trust Indenture Act;
- to evidence and provide the acceptance of any successor trustee with respect to the debt securities or one or more other series of debt securities under the indenture or to facilitate the administration of the trusts thereunder by one or more trustees in accordance with the indenture; and
- to provide any additional events of default;

to add to, change or eliminate any of the provisions of the indentures in respect of one or more series of debt securities, provided that any such addition, change or elimination, shall become effective only when there is no security outstanding of any series created prior to the adoption of such addition, change or elimination;

to make any provisions with respect to the optional conversion rights of holders, including providing for the conversion of the debt securities into any other security or securities of ours, provided that such provisions are not adverse to the interests of the holders of any debt securities then outstanding;

to add any guarantee of one or more series of the debt securities; or

- to supplement any of the provisions of the indenture to such extent as shall be necessary to permit or facilitate the defeasance and discharge of any series of debt securities pursuant to the indenture; provided that any such action shall not adversely affect the interests of the holders of debt securities of such series and any related coupons or any other series of securities in any material respect.

With certain exceptions, the indenture or the rights of the holders of the debt securities may be modified by us and the trustee with the consent of the holders of a majority in aggregate principal amount of the debt securities then outstanding affected thereby, but no such modification may be made without the consent of the holder of each outstanding note affected thereby that would:

change the maturity of the principal of, or any premium on, or any installment of principal of or interest on any debt securities, or reduce the principal amount or any premium or the rate or manner of calculating interest or any premium payable upon redemption or repayment of any debt securities, or change the dates or periods for any redemption or repayment or change any place of payment where, or the coin or currency in which, any principal, premium or interest is payable, or impair the right to institute suit for the enforcement of any such payment on or after the maturity thereof (or, in the case of redemption or repayment, on or after the redemption or repayment date);

reduce the percentage in principal amount of the outstanding debt securities, the consent whose holders is required for any such modification, or the consent of whose holders is required for any waiver of compliance with certain provisions of the indenture or certain defaults thereunder and their consequences provided for in the indenture; or

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modify any of the provisions of certain sections of the indenture, including the provisions summarized in this paragraph, except to increase any such percentage or to provide that certain other provisions of the indenture cannot be modified or waived without the consent of the holder of each of the outstanding debt securities affected thereby.

Defeasance

The following provisions will be applicable to each series of debt securities unless we state in the applicable prospectus supplement or term sheet that the provisions of covenant defeasance and full defeasance will not be applicable to that series.

Covenant Defeasance

Under current United States federal tax law, we can make the deposit described below and be released from some of the restrictive covenants in the indenture under which the particular series was issued. This is called covenant defeasance. In that event, you would lose the protection of those restrictive covenants but would gain the protection of having money and government securities set aside in trust to repay your debt securities. In order to achieve covenant defeasance, we must do the following:

deposit in trust for the benefit of all holders of such debt securities a combination of money and government or government agency debt securities or bonds in the relevant currency that will generate enough cash to make interest, principal and any other payments on the debt securities of such series in the relevant currency on their various due dates; and

deliver to the trustee a legal opinion of our counsel confirming that, under current United States federal income tax law, we may make the above deposit without causing you to be taxed on the debt securities of such series any differently than if we did not make the deposit and just repaid such debt securities ourselves at maturity.

If we accomplish covenant defeasance, you can still look to us for repayment of the debt securities if there were a shortfall in the trust deposit or the trustee is prevented from making payment. In fact, if one of the remaining Events of Default occurred (such as our bankruptcy) and the debt securities became immediately due and payable, there might be a shortfall. Depending on the event causing the default, you may not be able to obtain payment of the shortfall.

Full Defeasance

If there is a change in United States federal tax law, as described below, we can legally release ourselves from all payment and other obligations on the debt securities of a particular series (called full defeasance) if we put in place the following other arrangements for you to be repaid:

we must deposit in trust for the benefit of all holders of the debt securities of such series a combination of money and government or government agency debt securities or bonds in the relevant currency that will generate enough cash to make interest, principal and any other payments on the debt securities of such series in the relevant currency on their various due dates; and

we must deliver to the trustee a legal opinion confirming that there has been a change in current United States federal tax law or an Internal Revenue Service ruling that allows us to make the above deposit without causing you to be taxed on the debt securities of such series any differently than if we did not make the deposit and just repaid such debt securities ourselves at maturity. Under current United States federal tax law, the deposit and our legal release from the debt securities of such series would be treated as though we paid you your share of the cash and debt securities or bonds at the time the cash and debt securities or bonds were deposited in trust in exchange for your debt securities and you would recognize gain or loss on your debt securities at the time of the deposit.

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If we ever did accomplish full defeasance, as described above, you would have to rely solely on the trust deposit for repayment of the debt securities of such series. You could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever became bankrupt or insolvent.

Covenant defeasance and full defeasance are both subject to certain conditions, such as no default or event of default occurring and continuing, and no breach of any material agreement.

Discharge of the Indenture

We may satisfy and discharge our obligations under the indenture by delivering to the trustee for cancellation all outstanding debt securities or by depositing with the trustee or the paying agent after the debt securities have become due and payable, whether at stated maturity, or any redemption or repayment date, or otherwise, cash sufficient to pay all of the outstanding debt securities and paying all other sums payable under the indenture.

No Personal Liability of Directors, Officers, Employees and Stockholders

No recourse for the payment of the principal of or premium, if any, or interest on any debt security or any coupons appertaining thereto, or for any claim based thereon or otherwise in respect thereof, and no recourse under or upon any obligation, covenant or agreement of ours in the indenture or in any supplemental indenture, or in any debt security or any coupons appertaining thereto, or because of the creation of any indebtedness represented thereby, shall be had against any director, officer, employee, or stockholder as such, past, present or future, of ours or any of our affiliates or any successor person, either directly or through us or any of our affiliates or any successor person, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that all such liability is hereby expressly waived and released as a condition of, and as a consideration for, the execution of the indenture and the issue of the debt securities.

Governing Law

New York law will govern the indenture and the debt securities.

Form, Exchange and Transfer of Certificated Debt Securities

If registered debt securities cease to be issued in book-entry form, they will be issued:

- only in fully registered certificated form,
- without interest coupons, and
- unless we indicate otherwise in the prospectus supplement or term sheet, in a minimum denomination of $2,000 and amounts above the minimum denomination that are integral multiples of $1,000.

Holders may exchange their certificated debt securities of smaller denominations or combined into fewer debt securities of larger denominations, as long as the total principal amount is not changed.

Holders may exchange or transfer their certificated debt securities at the office of the trustee. We have appointed the trustee to act as our agent for registering debt securities in the names of holders transferring debt securities. We may appoint another entity to perform these functions or perform them ourselves.

Holders will not be required to pay a service charge to transfer or exchange their certificated securities, but they may be required to pay any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange will be made only if our transfer agent is satisfied with the holder s proof of legal ownership.

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If we have designated additional transfer agents for your debt security, they will be named in the applicable prospectus supplement or term sheet. We may appoint additional transfer agents or cancel the appointment of any particular transfer agent. We may also approve a change in the office through which any transfer agent acts.

If any certificated debt securities of a particular series are redeemable and we redeem less than all the debt securities of that series, we may block the transfer or exchange of those debt securities during the period beginning 15 days before the day we mail the notice of redemption and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers or exchanges of any certificated debt securities selected for redemption, except that we will continue to permit transfers and exchanges of the unredeemed portion of any debt security that will be partially redeemed.

If a registered debt security is issued in book-entry form, only the depositary will be entitled to transfer and exchange the debt security as described in this subsection, since it will be the sole holder of the debt security.

Resignation of Trustee

The trustee may resign or be removed at any time with respect to one or more series of indenture securities provided that a successor trustee is appointed to act with respect to these series. In the event that two or more persons are acting as trustee with respect to different series of indenture securities under the indenture, each of the trustees will be a trustee of a trust separate and apart from the trust administered by any other trustee.

The Trustee Under the Indenture

The trustee may be one of a number of banks with which we maintain ordinary banking relationships and from which we may obtain credit facilities and lines of credit in the future. The trustee may also serve as trustee under other indentures under which we are the obligor in the future.

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DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of our preferred stock, common stock, debt securities or any combination thereof. Warrants may be issued independently or together with our preferred stock, common stock or debt securities and may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent. The warrant agent will act solely as our agent in connection with the warrants. The warrant agent will not have any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. This summary of certain provisions of the warrants is not complete. For the terms of a particular series of warrants, you should refer to the prospectus supplement for that series of warrants and the warrant agreement for that particular series.

The prospectus supplement relating to a particular series of warrants to purchase such securities will describe the terms of the warrants, including the following:

the title of the warrants;

the offering price for the warrants, if any;

the aggregate number of warrants;

the designation and terms of the securities that may be purchased upon exercise of the warrants;

if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each security;

if applicable, the date from and after which the warrants and any securities issued with the warrants will be separately transferable;

whether the warrants will be issued in registered form or bearer form;

information with respect to book-entry procedures, if any;

the number and basic terms of the securities that may be purchased upon exercise of a warrant and the exercise price for the warrants;

the dates on which the right to exercise the warrants shall commence and expire;

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

if applicable, a discussion of material U.S. federal income tax considerations;

the antidilution provisions of the warrants, if any;

the redemption or call provisions, if any, applicable to the warrants;

any provisions with respect to the holder s right to require us to repurchase the warrants upon a change in control or similar event; and

any additional terms of the warrants, including procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled:

to vote, consent or receive dividends;

receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or

exercise any rights as stockholders of us.

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Holders of warrants to purchase debt securities will not be entitled to payments of principal of, or any premium or interest on, the debt securities purchasable on exercise, or to exercise any of the rights of the holders of such debt securities until such warrant is exercised.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

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DESCRIPTION OF UNITS

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate agreement. We may enter into unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

The following description, together with the additional information included in any applicable prospectus supplement, summarizes the general features of the units that we may offer under this prospectus. You should read any prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms and provisions and we will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable:

the title of the series of units;

identification and description of the separate constituent securities comprising the units;

the price or prices at which the units will be issued;

the date, if any, on and after which the constituent securities comprising the units will be separately transferable;

a discussion of certain United States federal income tax considerations applicable to the units; and

any other terms of the units and their constituent securities.

Enforceability of Rights by Holders of Units

To the extent applicable, each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

We, any unit agents and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary. See Legal Ownership of Securities.

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LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee or depositary or warrant agent maintain for this purpose as the holders of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as indirect holders of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Global securities will be registered in the name of the depositary or its participants. Consequently, for global securities, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a global security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not legal holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities that are not issued in global form. In these cases, investors may choose to hold their securities in their own names or in street name. Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depositary will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any such trustee or depositary will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not legal holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee or third party employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

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For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with its participants or customers or by law, to pass it along to the indirect holders but does not do so.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form because the securities are represented by one or more global securities or in street name, you should check with your own institution to find out:

how it handles securities payments and notices;

whether it imposes fees or charges;

how it would handle a request for the holders consent, if ever required;

whether and how you can instruct it to send you securities registered in your own name so you can be a legal holder, if that is permitted in the future;

how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and

if the securities are in book-entry form, how the depositary s rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we issue to, deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under Special Situations When A Global Security Will Be Terminated. As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and legal holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a legal holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued as a global security, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations For Global Securities

As an indirect holder, an investor s rights relating to a global security will be governed by the account rules of the investor s financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

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If securities are issued only as global securities, an investor should be aware of the following:

an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;

an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;

an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;

an investor may not be able to pledge his or her interest in the global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;

the depositary s policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor s interest in the global security. We and any applicable trustee have no responsibility for any aspect of the depositary s actions or for its records of ownership interests in the global security. We and the trustee also do not supervise the depositary in any way;

the depositary may, and we understand that DTC will, require that those who purchase and sell interests in the global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and

financial institutions that participate in the depositary s book-entry system, and through which an investor holds its interest in the global security, may also have their own policies affecting payments, notices and other matters relating to the securities. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When A Global Security Will Be Terminated

In a few special situations described below, a global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own names, so that they will be direct holders. We have described the rights of holders and street name investors above.

A global security will terminate when the following special situations occur:

if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;

if we notify any applicable trustee that we wish to terminate that global security; or

if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and neither we nor any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

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PLAN OF DISTRIBUTION

We may sell the securities offered through this prospectus (1) to or through underwriters or dealers, (2) directly to purchasers, including our affiliates, (3) through agents, or (4) through a combination of any these methods. The securities may be distributed at a fixed price or prices, which may be changed, market prices prevailing at the time of sale, prices related to the prevailing market prices, or negotiated prices. The prospectus supplement will include the following information:

the terms of the offering;

the names of any underwriters or agents;

the name or names of any managing underwriter or underwriters;

the purchase price of the securities;

the net proceeds from the sale of the securities;

any delayed delivery arrangements;

any underwriting discounts, commissions and other items constituting underwriters compensation;

any initial public offering price;

any discounts or concessions allowed or reallowed or paid to dealers; and

any commissions paid to agents.

Sale through underwriters or dealers

If underwriters are used in the sale, the underwriters will acquire the securities for their own account, including through underwriting, purchase, security lending or repurchase agreements with us. The underwriters may resell the securities from time to time in one or more transactions, including negotiated transactions. Underwriters may sell the securities in order to facilitate transactions in any of our other securities (described in this prospectus or otherwise), including other public or private transactions and short sales. Underwriters may offer securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. Unless otherwise indicated in the prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions, and the underwriters will be obligated to purchase all the offered securities if they purchase any of them. The underwriters may change from time to time any initial public offering price and any discounts or concessions allowed or reallowed or paid to dealers. The prospectus supplement will include the names of the principal underwriters the respective amount of securities underwritten, the nature of the obligation of the underwriters to take the securities and the nature of any material relationship between an underwriter and us.

If dealers are used in the sale of securities offered through this prospectus, we will sell the securities to them as principals. They may then resell those securities to the public at varying prices determined by the dealers at the time of resale. The prospectus supplement will include the names of the dealers and the terms of the transaction.

Direct sales and sales through agents

We may sell the securities offered through this prospectus directly. In this case, no underwriters or agents would be involved. Such securities may also be sold through agents designated from time to time. The prospectus supplement will name any agent involved in the offer or sale of the offered securities and will describe any commissions payable to the agent by us. Unless otherwise indicated in the prospectus supplement, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment.

We may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. The terms of any such sales will be described in the prospectus supplement.

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Delayed delivery contracts

If the prospectus supplement indicates, we may authorize agents, underwriters or dealers to solicit offers from certain types of institutions to purchase securities at the public offering price under delayed delivery contracts. These contracts would provide for payment and delivery on a specified date in the future. The contracts would be subject only to those conditions described in the prospectus supplement. The applicable prospectus supplement will describe the commission payable for solicitation of those contracts.

Market making, stabilization and other transactions

Unless the applicable prospectus supplement states otherwise, each series of offered securities will be a new issue and will have no established trading market. We may elect to list any series of offered securities on an exchange. Any underwriters that we use in the sale of offered securities may make a market in such securities, but may discontinue such market making at any time without notice. Therefore, we cannot assure you that the securities will have a liquid trading market.

Any underwriter may also engage in stabilizing transactions, syndicate covering transactions and penalty bids in accordance with Rule 104 under the Securities Exchange Act of 1934, as amended. Stabilizing transactions involve bids to purchase the underlying security in the open market for the purpose of pegging, fixing or maintaining the price of the securities. Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover syndicate short positions.

Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the securities to be higher than it would be in the absence of the transactions. The underwriters may, if they commence these transactions, discontinue them at any time.

Derivative transactions and hedging

We, the underwriters or other agents may engage in derivative transactions involving the securities. These derivatives may consist of short sale transactions and other hedging activities. The underwriters or agents may acquire a long or short position in the securities, hold or resell securities acquired and purchase options or futures on the securities and other derivative instruments with returns linked to or related to changes in the price of the securities. In order to facilitate these derivative transactions, we may enter into security lending or repurchase agreements with the underwriters or agents. The underwriters or agents may effect the derivative transactions through sales of the securities to the public, including short sales, or by lending the securities in order to facilitate short sale transactions by others. The underwriters or agents may also use the securities purchased or borrowed from us or others (or, in the case of derivatives, securities received from us in settlement of those derivatives) to directly or indirectly settle sales of the securities or close out any related open borrowings of the securities.

Electronic auctions

We may also make sales through the Internet or through other electronic means. Since we may from time to time elect to offer securities directly to the public, with or without the involvement of agents, underwriters or dealers, utilizing the Internet or other forms of electronic bidding or ordering systems for the pricing and allocation of such securities, you should pay particular attention to the description of that system we will provide in a prospectus supplement.

Such electronic system may allow bidders to directly participate, through electronic access to an auction site, by submitting conditional offers to buy that are subject to acceptance by us, and which may directly affect the price or other terms and conditions at which such securities are sold. These bidding or ordering systems may

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present to each bidder, on a so-called real-time basis, relevant information to assist in making a bid, such as the clearing spread at which the offering would be sold, based on the bids submitted, and whether a bidder s individual bids would be accepted, prorated or rejected.

Upon completion of such an electronic auction process, securities will be allocated based on prices bid, terms of bid or other factors. The final offering price at which securities would be sold and the allocation of securities among bidders would be based in whole or in part on the results of the Internet or other electronic bidding process or auction.

General information

Agents, underwriters, and dealers may be entitled, under agreements entered into with us, to indemnification by us against certain liabilities, including liabilities under the Securities Act.

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LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP, San Diego, California.

EXPERTS

The consolidated financial statements as of December 31, 2016 and 2015 and for each of the two years in the period ended December 31, 2016 and management s assessment of the effectiveness of internal control over financial reporting as of December 31, 2016 incorporated by reference in this Prospectus have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of MediciNova, Inc. appearing in MediciNova, Inc. s Annual Report (Form 10-K) for the year ended December 31, 2014, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and other reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC s website at http://www.sec.gov. You may also read and copy any document we file 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. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge through the Internet. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

We have filed with the SEC a registration statement under the Securities Act of 1933 relating to the offering of these securities. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement. You can obtain a copy of the registration statement, at prescribed rates, from the SEC at the address listed above. The registration statement and the documents referred to below under Incorporation by Reference are also available on our Internet website, www.medicinova.com. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

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INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus certain information we file with it, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in this prospectus and any accompanying prospectus supplement. We incorporate by reference the documents listed below that we have previously filed with the SEC (excluding any portions of any Form 8-K that are not deemed filed pursuant to the General Instructions of Form 8-K):

- our annual report on Form 10-K for the fiscal year ended December 31, 2016, filed on February 14, 2017 (File No. 001-33185-17610822);
- our quarterly reports on Form 10-Q for the fiscal quarters ended March 31, 2017 and June 30, 2017, filed on April 26, 2017 and July 26, 2017, respectively (File Nos. 001-33185-17784807 and 001-33185-17983809, respectively);
- our current reports on Form 8-K filed on June 12, 2017 (File No. 001-33185-17907166) and September 7, 2017 (File No. 001-33185-171074411);
- our definitive proxy statement on Schedule 14A filed on April 27, 2017, in connection with our 2017 Annual Meeting of Stockholders (File No. 001-33185-17790225); and
- the description of our common stock contained in our Registration Statement on Form 8-A as filed with the SEC on January 26, 2005 pursuant to Section 12(b) of the Exchange Act (File No. 001-33185-061257707).

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the completion or termination of the offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information deemed furnished and not filed with the SEC. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

This prospectus may contain information that updates, modifies or is contrary to information in one or more of the documents incorporated by reference in this prospectus. You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, at no cost to the requester, a copy of any and all of the information that is incorporated by reference in this prospectus. Requests for such documents should be directed to:

MediciNova, Inc.

Attn: Investor Relations

4275 Executive Square, Suite 650

La Jolla, California 92037

(858) 373-1500

You may also access the documents incorporated by reference in this prospectus through our website at www.medicinova.com. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

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shares

MediciNova, Inc.

Common Stock

Sole Book-running Manager

Ladenburg Thalmann

Lead Manager

B. Riley FBR

February , 2018