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**FOR IMMEDIATE RELEASE**

### **MediciNova Initiates Phase II Clinical Trial of MN-221 in Status Asthmaticus Patients**

SAN DIEGO, Calif. – March 31, 2008 – MediciNova, Inc., a biopharmaceutical company that is publicly traded on the Nasdaq Global Market (Trading Symbol: MNOV) and the Hercules Market of the Osaka Securities Exchange (Code Number: 4875), today announced the initiation of a Phase II clinical trial, by holding the Investigator's Meeting, to determine the safety and efficacy of MN-221 in patients with severe, acute exacerbations of asthma.

This randomized, modified single-blind, placebo-controlled, dose escalation Phase II clinical trial will involve approximately 36 patients in three dose cohorts at eight emergency department clinical sites in the U.S. and Puerto Rico. Each patient will receive MN-221 or placebo administered through a continuous infusion in addition to the standardized care treatment for an acute exacerbation of asthma. Once the patient has received the initial standardized care treatment regimen (consistent with the National Asthma Education and Prevention Program guidelines), the patient will be assessed for response to that treatment. If the patient's FEV1 (forced expiratory volume in 1 second) is  $\leq 45$  percent of predicted and the patient meets all other study entry criteria, the patient will be randomized to receive either MN-221 or placebo. The initial dose group will be

randomized to receive MN-221 16 µg/min for 15 minutes (total dose of 240 µg) or placebo. Subsequent dose groups may receive 30 µg/min for 15 minutes (total dose of 450 µg) or placebo and 16 µg/min for 15 minutes followed by 8 µg/min for 105 minutes (total dose of 1,080 µg) or placebo. Patients enrolled in the study will continue to receive standardized care as needed while receiving an intravenous infusion of MN-221. Safety and preliminary efficacy data will be collected and summarized, but will not be subjected to inferential statistical analysis. The data from this trial will aid in the design of a larger Phase IIb ED clinical trial, which is expected to begin towards the end of 2008, as well as a future Phase III ED study, if warranted.

“Following on the positive clinical results attained from our Phase IIa study of MN-221 in mild-to-moderate asthmatics, we are very pleased to initiate the next logical step in the advancement of MN-221, moving testing into the intended clinical population of patients with severe, acute exacerbations of asthma,” said Yuichi Iwaki, M.D., Ph.D., President and Chief Executive Officer of MediciNova, Inc. “This study will provide us with an initial observation into the potential safety and efficacy of MN-221 in patients undergoing a severe asthma attack.”

### **About MN-221**

MN-221 is highly-selective  $\beta_2$ -adrenergic receptor agonist. Preclinical testing *in vitro* and *in vivo* shows MN-221 to be more selective for the  $\beta_2$ -adrenergic receptor than other  $\beta_2$ -adrenergic receptor agonists commonly used these asthma attacks. This improved selectivity, coupled with its partial agonist activity at  $\beta_1$ -adrenergic receptors, may result in fewer cardiovascular side effects than are commonly observed with these other agents. Importantly, MediciNova has developed an intravenous formulation of MN-221 that may effectively bypass the constricted airways to deliver effective concentrations of the drug to the lungs. MN-221 has been shown recently to produce significant improvements in mean change in post-infusion (15 minute) FEV<sub>1</sub> (forced expiratory volume in 1 second) from baseline (objective measure of lung function) at doses of 3.5 micrograms/min

( $p=0.011$ ), and at 10, 16, 30 and 60 micrograms/min ( $p$  less than or equal to 0.0001), compared to placebo in stable mild-to-moderate asthma patients.

MediciNova acquired a license to MN-221 from Kissei Pharmaceutical Co., Ltd. for global markets excluding Japan. The intellectual property acquired from Kissei included extensive preclinical and clinical safety data. MN-221 is also under development by MediciNova for the treatment of preterm labor.

### **About MediciNova**

MediciNova, Inc. is a publicly-traded biopharmaceutical company focused on acquiring and developing novel, small-molecule therapeutics for the treatment of diseases with unmet need with a specific focus on the U.S. market. Through strategic alliances primarily with Japanese pharmaceutical companies, MediciNova is developing a diversified portfolio of clinical and preclinical product candidates, each of which MediciNova believes has a well-characterized and differentiated therapeutic profile, attractive commercial potential and patent assets having claims of commercially adequate scope. MediciNova's pipeline includes six clinical-stage compounds for the treatment of status asthmaticus, multiple sclerosis, asthma, interstitial cystitis, solid tumor cancers, Generalized Anxiety Disorder, preterm labor and urinary incontinence and two preclinical-stage compounds for the treatment of thrombotic disorders. MediciNova's current strategy is to focus its resources on the development and commercialization of two prioritized assets in its development pipeline: MN-221 for the treatment of status asthmaticus, an acute, severe asthma attack, and MN-166 for the treatment of multiple sclerosis. MediciNova will seek to monetize its other product candidates at key value inflection points. For more information on MediciNova, Inc., please visit [www.medicinova.com](http://www.medicinova.com).

*Statements in this press release that are not historical in nature constitute forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include,*

*without limitation, statements regarding MediciNova's clinical trials supporting safety and efficacy of product candidates and the potential novelty of such product candidates as treatments for disease, plans and objectives for present and future clinical trials and product development, strategies, future performance, expectations, assumptions, financial condition, liquidity and capital resources. These forward-looking statements may be preceded by, followed by or otherwise include the words "believes," "expects," "anticipates," "intends," "estimates," "projects," "can," "could," "may," "would," or similar expressions. These forward-looking statements involve a number of risks and uncertainties that may cause actual results or events to differ materially from those expressed or implied by such forward-looking statements. Factors that may cause actual results or events to differ materially from those expressed or implied by these forward-looking statements, include, but are not limited to, the risks and uncertainties inherent in clinical trials and product development and commercialization, such as the uncertainty in results of clinical trials for product candidates, 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, 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, cost and design of future clinical trials and research activities, the timing of expected filings with the FDA, MediciNova's failure to execute strategic plans or strategies successfully, MediciNova's collaborations with third parties, the availability of funds to complete product development plans and MediciNova's ability to raise sufficient capital when needed, intellectual property or contract rights, and the other risks and uncertainties described in MediciNova's filings with the Securities and Exchange Commission, including its annual report on Form 10-K for the year ended December 31, 2007 and its subsequent periodic reports on Forms 10-Q and 8-K. Undue reliance should not be placed on these forward-looking statements, which speak only as of the date hereof. MediciNova disclaims any intent or obligation to revise or update these forward-looking statements.*

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