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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): April 29, 2008

MEDICINOVA, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-33185
(Commission File Number)

33-0927979
(IRS Employer
Identification No.)

4350 La Jolla Village Drive, Suite 950
San Diego, CA 92122
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (858) 373-1500

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure.

Representatives of MediciNova, Inc. (the "Registrant") will be making a corporate presentation at various investor meetings commencing April 29, 2008. A copy of the slide presentation to be used by the Registrant at these meetings is attached hereto as Exhibit 99.1.

The information in this Current Report, including Exhibit 99.1 furnished herewith, is being furnished and shall not be deemed "filed" for any purpose, including for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that Section. The information in this Current Report shall not be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit</u>	<u>Description</u>
99.1	Slide presentation of the Registrant

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MEDICINOVA, INC.

By: /s/ Shintaro Asako
Shintaro Asako
Vice President and Chief Financial Officer

Dated: April 29, 2008

EXHIBIT INDEX

Exhibit

Description

99.1

Slide presentation of the Registrant



*Accelerating
the global development
and commercialization of
innovative pharmaceuticals*

April 2008



Forward-Looking Statements

Statements in this presentation 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 our 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 clinical trials and product development, strategies, future performance, 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. Actual results or events may differ materially from those expressed or implied in any forward-looking statements due to various factors, including, without limitation, 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 we rely to conduct our clinical trials and manufacture our 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; our failure to execute strategic plans or strategies successfully; our collaborations with third parties; the availability of funds to complete product development plans and our ability to raise sufficient capital when needed; intellectual property or contract rights; and the other risks and uncertainties described in our filings with the Securities and Exchange Commission, including our annual report on Form 10-K for the year ended December 31, 2007. Undue reliance should not be placed on these forward-looking statements, which speak only as of the date hereof. We disclaim any intent or obligation to revise or update these forward-looking statements.



Corporate Overview: MediciNova, Inc.

Development Company Focused on Differentiated Product Candidates

- Unique access to differentiated, potentially high-value assets primarily from Japanese alliances

New Approaches to Treat Serious Medical Conditions:

- MN-221: IV Status Asthmaticus candidate
 - Potential \$500 M US opportunity for MediciNova
- MN-166: Oral Multiple Sclerosis candidate
 - In 2006, approximately \$7.2 B in worldwide MS therapeutic sales*

Diverse Pipeline:

- Six compounds with applications in multiple disease areas

**Source: MedAdNews, June 2007*



Business Model: Return On Investment

In-License:

- Product candidates with significant clinical or preclinical data



Conduct Proof-of-Concept Clinical Trials:

- Conduct Phase I and Phase II clinical trials to demonstrate efficacy of compound



KISSEI

Two Pathways Towards ROI After Phase II:

- Continue internal development of compound towards commercialization
- Seek partnership for further development of compound



Meiji





MN-221 Development Plan

MN-221	2008		2009		2010	
	1H	2H	1H	2H	1H	2H
P1a 4-Hour Infusion*	▶					
P1b Single-Blind*	▶					
P1b Double-Blind*		▶				
P3**				▶		
P3**				▶ NDA†		

*Anticipated commencement and completion dates based on current projections

**We also plan to conduct an advanced clinical trial of MN-221 in pediatric patients with status asthmaticus; however, we have not yet determined whether this clinical trial will be initiated in conjunction with the other planned Phase III clinical trials or after NDA submission

† Filing as early as 2H'10

Note: Development plans / timelines for MN-221 are subject to change



MN-221: A New Approach to Treating Status Asthmaticus

Definition:

- Long-lasting and severe asthma episode that is not responsive to initial bronchodilator or corticosteroid therapy

MN-221:

- Novel, highly selective β_2 -adrenergic receptor agonist
- Greater selectivity
 - Partial agonist β_1 receptor in the heart
 - Full agonist β_2 receptor in the lungs
- Improved safety (fewer cardiovascular side effects) compared to older β -agonists
- IV formulation for acute hospital use
 - Reliable and rapid delivery
- Positive Phase III results reported in October 2007



MN-221: Market Opportunity

Market Opportunity:

- Approximately 1.9 million emergency room visits in the US each year*
- 500,000 hospitalizations
- Approximately 4,000 deaths annually in the US*
- Potential \$500 M market opportunity for MediciNova

Current Standard of Care*:

- Beta agonists (all patients)
 - Inhaled or nebulized
- Corticosteroids (66-77% of patients)
 - IV or oral

**Source: National Center for Health Statistics / CDC*



Competitive Advantages of MN-221

1. Proven mechanism of action (β_2 -adrenoreceptor agonist)
2. Rapid, reliable IV delivery (vs. inhaled / nebulized)
3. Safer (greater selectivity = fewer cardiovascular SE)

Human β -Adrenergic Receptor Selectivity			
Drug	Adrenoceptor (IC_{50} , μ M)		β_2 -Adrenoceptor Selectivity
	β_1	β_2	(IC_{50} for β_1 / IC_{50} for β_2)
MN-221	1.39	0.0224	62.1
Albuterol (Salbutamol)	5.63	1.56	3.61

Displacement of [3 H]-cyanopindolol or [3 H]-CGP 12177 binding in membrane preparations expressing human cloned β_1 - and β_2 -adrenoceptors, respectively



MN-221: Positive Phase IIa data

Phase IIa study design

- Randomized, placebo-controlled, double-blind, sequential dose escalation
- 23 subjects with mild-to-moderate asthma
- Primary objective
 - To determine the efficacy of a single 15-minute treatment with intravenous MN-221
- Secondary objective
 - To determine the MTD (Maximum Tolerated Dose)

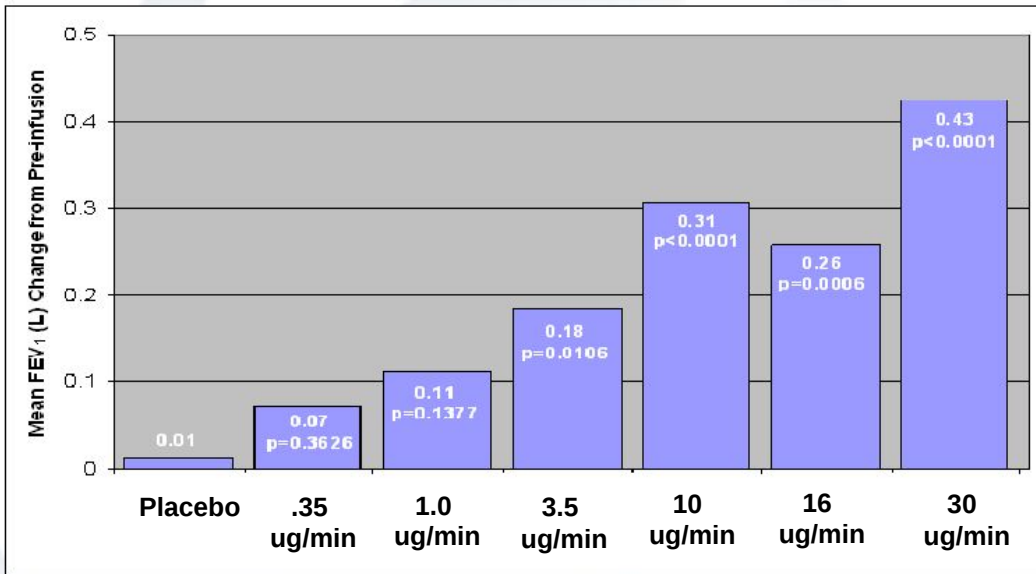
Primary endpoint met in Phase IIa study completed October 2007

- Achieved statistical significance in its primary endpoint of mean change in FEV1 from baseline at 15 minutes at doses of 3.5, 10, 16, and 30 micrograms/min of MN-221 compared to placebo
- No clinically significant cardiovascular, ECG or vital sign changes, or any other safety concerns observed at any dose tested
- 60 micrograms/min x 15 min (900 mcg) dose a possible MTD of MN-221



MN-221-CL-002: Primary Efficacy Variable

Change from Pre-Infusion FEV₁ at 15 min (ITT)





MN-221: Safety

Phase II Safety Findings:

- No clinically significant cardiovascular, ECG or vital sign changes, or any other safety concerns observed at doses up to 30 micrograms/minute for 15 minutes or any time point thereafter
- 60 micrograms/minute infusion improved FEV1 significantly ($p < 0.0001$) without clinically significant cardiovascular, ECG or vital sign changes; however, the safety trend led us to believe that this is a possible MTD and higher doses should not be tested

Safety Database:

- MN-221 has been tested in over 300 subjects in the US and Europe to date
- Subjects have had infusions with no clinically significant adverse events at:
 - 16 micrograms/minute for up to 4 hours and at lower doses for 24 hours



MN-221: Next Steps

Commence two Phase IIb studies to test efficacy of MN-221 in status asthmaticus patients in the emergency room

Single Blind (~32 patients)

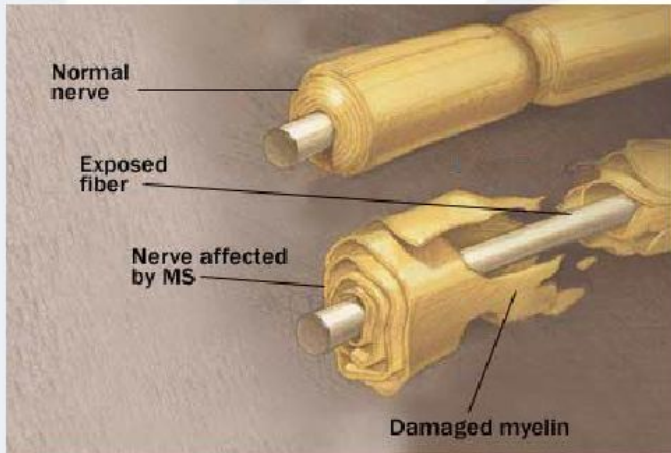
- Anticipated commencement date: 1H'08
- Results expected as early as 2H'08

Double Blind (~200 patients)

- Anticipated commencement date: 2H'08
- Results expected as early as 2H'09

Commence second Phase IIa study in stable asthmatic patients (~20 patients) for extended dosing (4 hour infusion)

- Anticipated commencement date: 1H'08
- Results expected as early as 2H'08



• Multiple Sclerosis

- Autoimmune disease
- Progressive loss of neuromuscular function
 - Relapsing forms
 - Progressive forms
- Damage to myelin sheath
- Damage to neuronal axon



MN-166 Overview

Multiple Sclerosis Market:

- Approximately \$7.2 B worldwide sales in 2006*

Current Standard of Care:

- Beta interferons, Copaxone[®], Tysabri[®]
- Administered either by intramuscular or subcutaneous injection or infusion

MN-166:

- Anti-inflammatory and neuroprotective properties *in vitro* and *in vivo*
 - Stimulates Th2 cytokine production and neurotrophin release
 - Cerebrovasodilator
 - Inhibits leukotrienes, phosphodiesterases, Th1 cytokine production, nitric oxide and reactive oxygen species production
 - Demonstrated effects on brain volume
- Targets both primarily chronic aspects of multiple sclerosis
- Oral administration

*Source: MedAdNews, June 2007



There Are Substantial Unmet Needs in MS

Description

**Efficacy
(relapse rate)**

- Current agents offer only 30-50% relapse reduction
- Neutralizing antibodies can diminish efficacy over time
- Most patients ultimately progress; neurodegeneration leads to functional disability

**Safety/
tolerability**

- AEs – including flu-like symptoms
- SAEs – Rare but fatal PML with Tysabri®
- Safety issues with pipeline drugs

Administration

- Injections – daily or weekly
- Infusions – monthly

Combination

- Increasing interest in combination therapies given sub-optimal efficacy with current “core” agents
- Black box on combination with Tysabri, REMS program

**Axonal
Protection**

- Demonstrated neuroprotection, that is, reduction in disease progression, would be groundbreaking
- Historically, anti-inflammatory agents have shown little impact on disease progression



Current Clinical Studies: MN-166-CL-001

Placebo-controlled, randomized, double-blind Phase II study:

- Year 1 0, 10 mg tid, 20 mg tid
- Year 2 10 mg tid, 20 mg tid
- n ~ 100 MS patients/group @ 25 sites in Serbia, Ukraine, Belarus, Bulgaria and Romania

Key inclusion criteria:

- Males or females aged 18 to 55 years, with relapsing remitting (RR) and/or secondary progressive (SP) Multiple Sclerosis with continued relapses;
- A definite diagnosis of relapsing MS using the new International Committee recommendations (MacDonald Criteria);
- One MRI scan taken two weeks prior to treatment start using a standardized MRI protocol with at least one Gd-enhancing lesion;
- An EDSS score of 5.5 or less at the screening and baseline visits.



MN-166 Targets Primarily Chronic Aspects of MS

MN-166 Effects Outcomes Related to Disease Progression in RRMS Patients

Clinical and MRI Outcomes:

- Prolong time to relapse (by 127 days.) **P-Value 0.044**
- Sustained disability progression was significantly less likely **P-Value 0.026**
- Reduced Brain Volume Loss **P-Value 0.030**
- Reduced Conversion of Acute Lesions to Persistent Black Holes **P-Value 0.011**

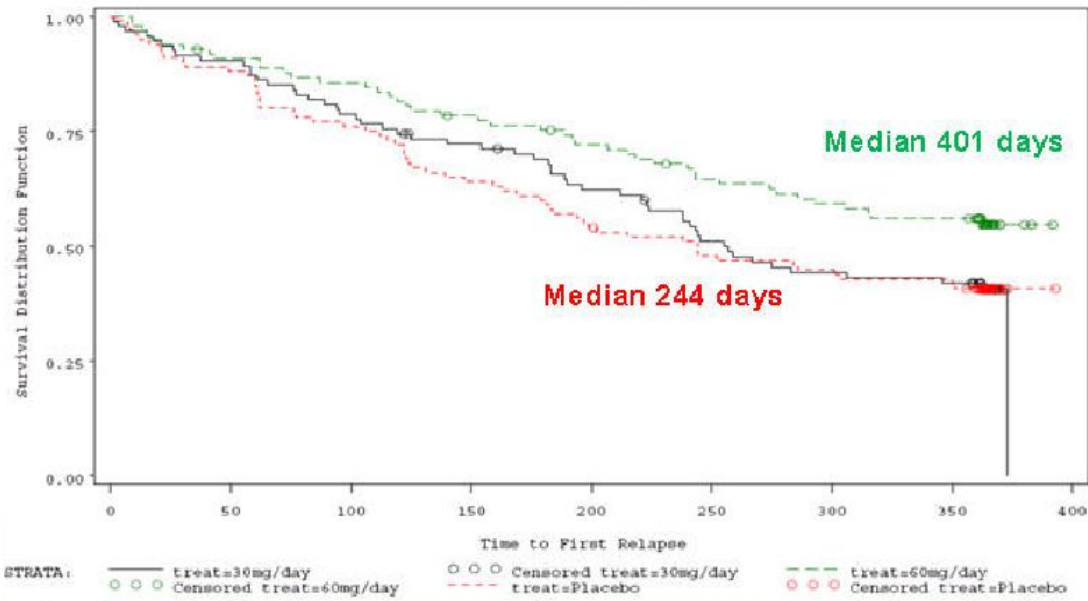
Mechanisms of Action

- Stimulates Neurotrophic Growth Factor Release
- Inhibits nitric oxide and reactive oxygen species production
- Inhibits Th1 cytokine production (IFN γ , TNF α , IL-1 β , IL-6)
- Pilot studies found reduced relapse rate and Th1 cytokine shift
- Phosphodiesterase and Leukotriene inhibitor



Acute Efficacy Demonstrated: Time to First Relapse

Figure 4-1 Plot of Time to First Relapse by Treatment (ITT)
Core (1-12 Months)





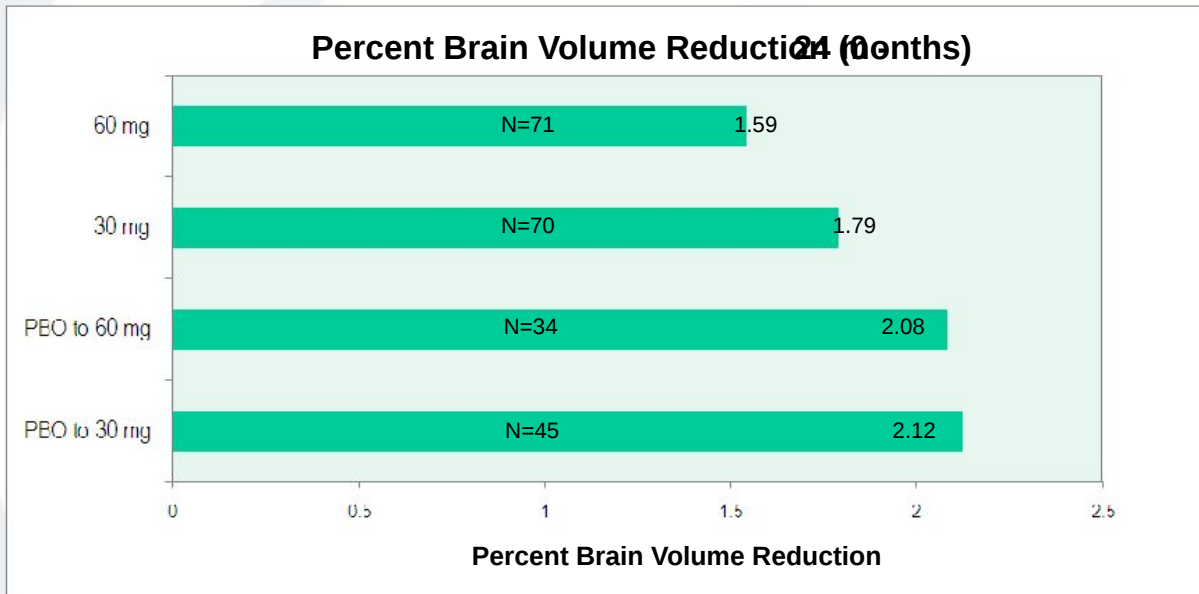
Sustained Disability Progression

Time Period	TREATMENT			
	Placebo to Active (N=100)		30 mg (N=94)	60 mg (N=98)
1 Year	8 (8.0%)		5 (5.3%)	4 (4.1%)
2 Years	8/51 (15.7%)	13/49 (26.5%)	10 (10.6%)	10 (10.2%)
	21/100 (21%)		20/194 (10.4%) p=0.0264	

Disability Progression is defined as a sustained increase in EDSS (increase in EDSS maintained for four consecutive months)



Chronic Efficacy Demonstrated: Effects on Brain Volume



Brain volume loss was significantly less ($p=0.030$) in patients receiving 60 mg per day of MN-166 for 24 months compared to the other treatment groups.



Reduction of Persistent Black Hole (PBH) Formation, a Sign of Axonal Loss

Parameter	Treatment Groups		
	Placebo	30 mg/day	60 mg/day
# Patients w. New Lesions at Month 272		64	56
Mean Proportion of Lesions Evolving to PBH	0.24	0.20	0.16
Relative Risk (for Evolution to PBH) vs. placebo		0.74	0.63
p Value	-	0.074	0.011

- MN-166 treatment at 60 mg per day significantly reduced the relative risk for conversion of new inflammatory lesions identified at month two to Persistent Black Holes (PBH) an MR indicator of neuronal loss, eight months later at month ten by 37 percent (p=0.011); such lesions that remain unchanged for eight months are considered as PBH compared to transient inflammatory lesions that are more closely associated with relapses.
- MN-166 treatment at 30 mg per day resulted in a trend toward reducing evolution to PBH (p=0.074).
- Loss of brain volume and development of PBHs have been shown to correlate with clinical progression and disability in MS patients.



MN-166 Overview-Safety

- **MN-166 was very well tolerated in Phase II study:**
 - 89% (264 of 297) of subjects completed the first 12 months of the study
 - 82.5% (245 of 297) of subjects completed the full 24 months of the study
- **Discontinuation due to adverse effects was infrequent (5.1% in 60mg/day for 24 months, 2.1% in 30 mg/day for 24 months, 2.0% in placebo to 60 mg/day, 1.9% in placebo to 30 mg/day)**
- **Adverse effects were generally mild and self-limiting**
- **GI adverse effects as a group and depression were the only adverse events to occur more frequently in MN-166-treated than in placebo-treated subjects**
- **Tolerance to the GI side effects occurred rapidly (2-4 days) and tended to occur early in treatment whether MN-166 treatment was initiated in Year 1 or Year 2**
- **Mild-to-moderate depression was reported in 8 subjects; depression is common in MS patients and was reported only towards the end of the study**
- **No significant increase in adverse laboratory or ECG findings was observed**
- **20 serious adverse events were reported; all were likely to be attributable to treatment**
- **No deaths occurred in the study**



Safety Comparison with Other Oral Agents

Compound	Sponsor	Current Phase	Safety Profile from Phase II trials		
MN-166	MedicNova	Phase II	Mild, transient GI upset		
FTY 720	Novartis	Phase III	↑ Blood pressure ↓ Heart rate	Dyspnea	↑ Liver enzymes Lymphopenia
Cladribine	Merck Serono	Phase III	Fever	Nausea, Vomiting	Leucopenia
BG-12	Biogen-Idec	Phase III	H/A, Nasopharyngitis	GI disorders	↑ Liver enzymes
Laquinimod	Teva	Phase III	↑ Liver enzymes	Arthralgia	↑ Fibrinogen ↓ Hemoglobin



Commercially-Attractive Diversified Portfolio

Core Candidates	Preclinical	Phase I	Phase II	Phase III
MN-166 (Multiple Sclerosis)	▶			
MN-221 (Status Asthmaticus)	▶			
Non-Core Candidates	Preclinical	Phase I	Phase II	Phase III
MN-001 (Bronchial Asthma)	▶			
MN-305 (Anxiety Disorders)	▶			
MN-001 (Interstitial Cystitis)	▶			
MN-029 (Solid Tumors)	▶			
MN-221 (Preterm Labor)	▶			
MN-246 (Urinary Incontinence)	▶			
MN-447/462 (Thrombosis)	▶			



Near-Term Clinical Milestones

MN-221 for Status Asthmaticus

- Single-blind Phase I study to test efficacy commencement date: 1H'08
 - Results as early as 2H'08
- Double-blind Phase I study to test efficacy commencement date: 2H'08
 - Results as early as 2H'09
- Second Phase I study for extended dosing commencement date: 1H'08
 - Results as early as 2H'08

MN-166 for Multiple Sclerosis

- Announced Two-Year Phase II results April 7, 2008
- Pursue corporate partnership to further development

MedicNovo is constantly evaluating opportunities to partner MN-166 and other product candidates



Key Financials

Dual Listing:

- MNOV (NasdaqGM), December 2006
- 4875 (OsakaHercules), February 2005
- Limited liquidity due to low float

Cash: \$70.6 M as of 12/31/07

Market cap as of 4/15/08: ~\$49.6 M

Shares outstanding: 11.9 M



Management Team with Global Experience



Yuichi Iwaki, MD, PhD
CEO & President

Years Experience

32

Background

Prof. USC, Formerly Prof. Pitt;
Advisor to JAFCO, Tanabe
Director, Avigen, Inc.



Richard Gamman, PhD, MBA
Chief Development Officer

30

Incara, Indevus, BMS



Kenneth W. Locke, PhD
Chief Scientific Officer

23

Tanabe Research Laboratories USA,
Indevus, Hoechst



Shintaro Asako, CPA
Chief Financial Officer

9

KPMG USA (Audit), Arthur Andersen USA



Masatsun Okajima, CMAA
VP, Head of Japanese Office

16

Daiwa Securities SMBC,
Sumitomo Capital Securities, Sumitomo Bank



Investment Highlights

MN-221 (Status Asthmaticus):

- Proven mechanism of action
 - Highly selective with improved safety profile vs. standard of care
- Low risk / high reward proposition
 - Positive efficacy data
 - Low development costs to market

MN-166 (Multiple Sclerosis):

- Current treatment of MS represents significant unmet medical need
 - Multi-billion dollar market opportunity
- Both chronic and acute efficacy have been demonstrated in clinical studies

Robust pipeline

- Six compounds with applications in multiple disease areas