

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): January 7, 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))

Item 7.01 Regulation FD Disclosure.

Representatives of MediciNova, Inc. (the "Registrant") will be attending the 26th Annual JPMorgan Healthcare Conference commencing January 7, 2008. A copy of the slide presentation to be used by the Registrant at one-on-one investor meetings to be held during this conference 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

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.

Dated: January 7, 2008

MEDICINOVA, INC.

By: /s/ Shintaro Asako
Shintaro Asako
Chief Financial Officer

EXHIBIT

99.1 Slide Presentation of the Registrant.



*Accelerating
the global development
and commercialization of
innovative pharmaceuticals*

January 2008



Forward-Looking Statements

This presentation contains forward-looking statements that involve risks and uncertainties. These forward-looking statements include, but are not limited to, statements regarding our strategies and objectives, our plans for the development and commercialization of our product candidates, including development programs and clinical trials, our industry, our financial condition, liquidity and capital resources, the efficacy and potential benefits of our product candidates and other statements that are not historical facts. These forward-looking statements may be preceded by, followed by or otherwise include the words “believes,” “expects,” “anticipates,” “intends,” “estimates,” “projects,” “can,” “could,” “may,” “will,” “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 our 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 approvals, our reliance on third parties and the timing, cost and design of future clinical trials and research activities, the timing of our expected filings with the FDA, the failure to execute strategic plans or strategies successfully, our collaborations with third parties, intellectual property and contract rights, and the other risks and uncertainties described in our filings with the Securities and Exchange Commission, including our annual report for the year ended December 31, 2006 and our subsequent periodic reports on Forms 10-Q and 8-K. You should not rely unduly on these forward-looking statements, which speak only as of the date hereof. We undertake no obligation to update publicly or revise any forward-looking statements discussed in this presentation.



Corporate Overview: MediciNova, Inc.

Development Company Focused on Low-Risk Product Candidates

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

New Approaches to Treat Serious Medical Conditions:

- MN-221: IV Status Asthmaticus candidate
 - Estimated \$500 M US opportunity for MediciNova
- MN: 166: Oral Multiple Sclerosis candidate
 - In 2005, approximately \$6.2 B in worldwide MS therapeutic sales*

Diverse Pipeline:

- Six compounds with applications in multiple disease areas

**Source: MedAdNews, June 2006*



Business Model: Return On Investment

In-License:

- Product candidates with significant clinical or pre-clinical data



Proof-of-Concept Trials:

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



Two Pathways Towards ROI After Phase II:

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





MN-221 Development Plan

MN-221	2008		2009		2010		
	1H	2H	1H	2H	1H	2H	
PIIa 4-Hour Infusion*	▶						
PIIb Single-Blind*	▶						
PIIb Double-Blind*		▶					
PIII*			▶				
PIII*			▶				NDA†
PIII (Ped.)*			▶				

*Anticipated commencement and completion dates based on current projections

† Filing as early as 2H'10

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



MN-166 Development Plan

Compound	2007		2008		2009		2010		2011	
	1H	2H	1H	2H	1H	2H	1H	2H	1H	2H
MN-166 (Multiple Sclerosis)	Phase II*		Phase III (EU)*/**							
	Pursuing Partnering Opportunities		Phase III (USA)*/**							

*Anticipated commencement and completion dates based on current projections

** Phase III studies, as well as Bioequivalence and MTD studies, will be delayed until a corporate partnership is secured for MN-166

Note: Development plans / timelines for MN-166 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 for β_1 receptor in the heart
 - Full agonist for 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 I 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 -adrenergic 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 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)

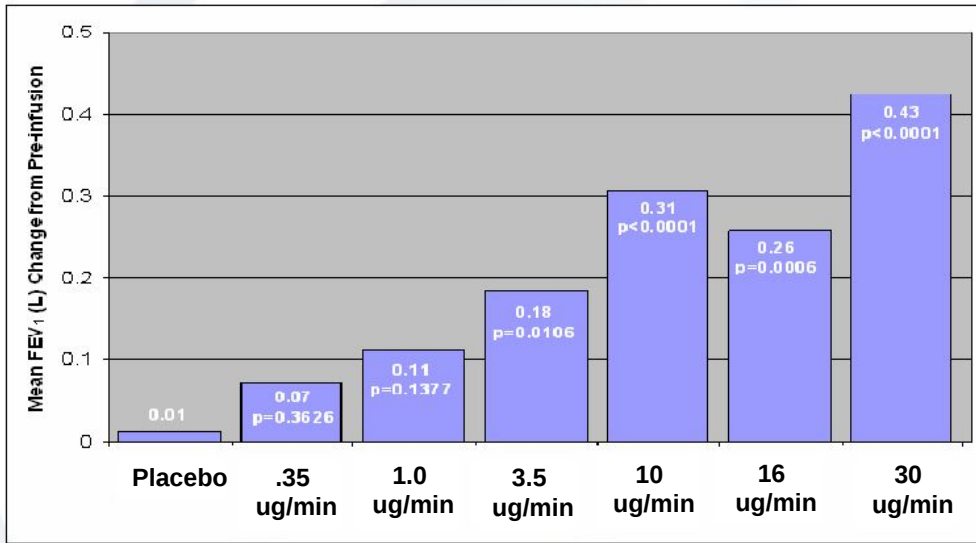
Primary endpoint met in Phase IIa study completed October 2007

- 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 IIa 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. 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 up to 24 hours



MN-221: Next Steps

Commence Two Phase IIb study to test efficacy of MN-221 in Status Asthmaticus patients in the emergency room

Single Blind (~32 patients)

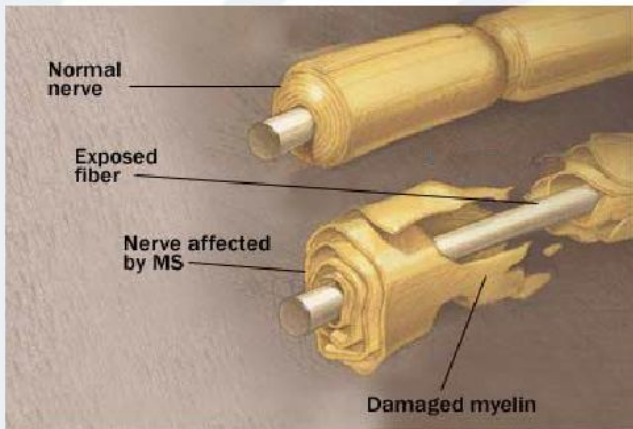
- Anticipated commencement date: 1H'08
- Results expected as early as 2H'08

Double Blind (~200 patients)

- Anticipated commencement date: 1H'08
- Results expected as early as 1H'09

Commence second Phase IIa study (~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 \$6.2 B worldwide sales in 2005*

Current Standard of Care:

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

MN-166:

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

*Source: MedAdNews, June 2006

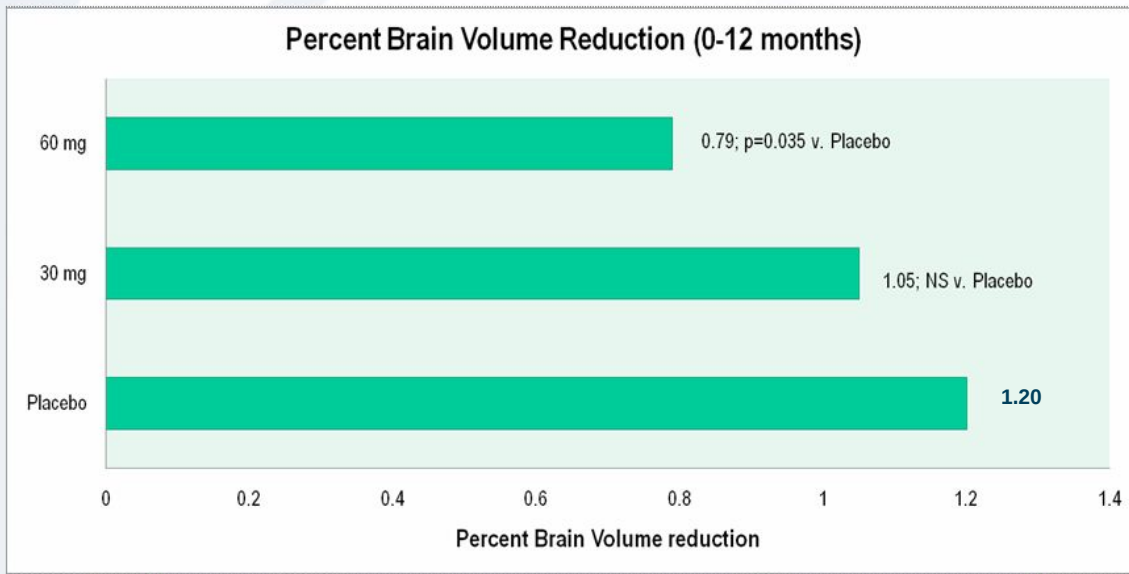


There are substantial unmet needs in the treatment of MS

	Description
Efficacy (relapse rate)	<ul style="list-style-type: none">• Insufficient efficacy on relapses• Most patients ultimately progress (disability/neurodegeneration)• Neutralizing antibodies can diminish efficacy over time
Safety/ Tolerability	<ul style="list-style-type: none">• Neutralizing antibodies can diminish efficacy over time• Uncomfortable and potentially dangerous AEs• Rare but fatal PML with Tysabri
Administration	<ul style="list-style-type: none">• All current drugs injectable (daily) or infusion (monthly)
Combination	<ul style="list-style-type: none">• Increasing interest in combination therapies given insufficient efficacy with current agents• Black box on combination with Tysabri
Neuroprotectio	<ul style="list-style-type: none">• Real neuroprotection would be groundbreaking• Current treatments do not address disease progression



Chronic Efficacy Demonstrated: Effects on Brain Volume



Brain volume changes are linked to axonal loss



MN-166 Targets Both Chronic and Acute Aspects of MS

MN-166 Similar Acute Efficacy to Current and Developing Treatments

Anti-inflammatory Outcomes:

- Pilot studies found reduced relapse rate and Th1 cytokine shift
- Prolong time to relapse (> 1yr.) **P-Value: 0.0438**
- Increased % relapse-free (56%) **P-Value: 0.033**
- Decreased T1-Gd lesion volume

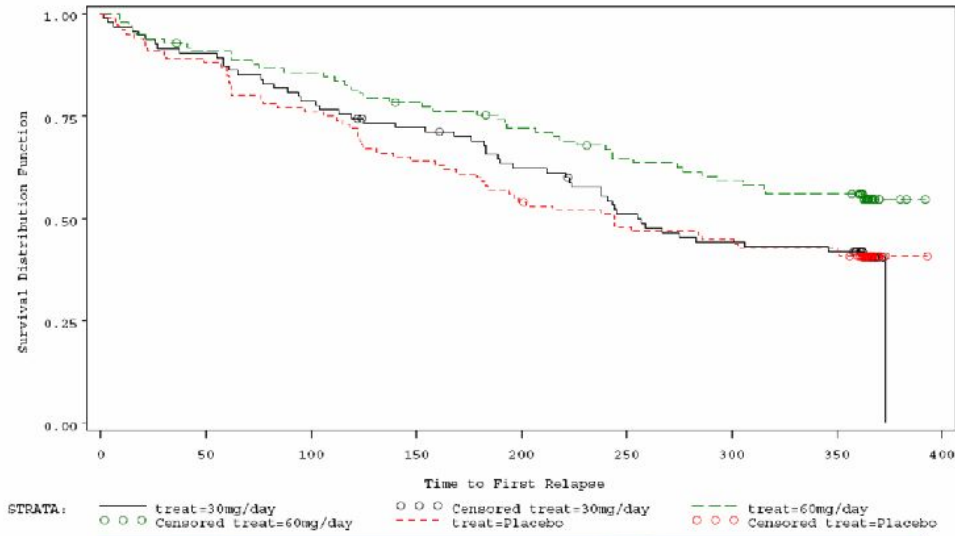
Reduces Relapses via Inhibiting Inflammation

- Phosphodiesterase and Leukotriene inhibitor
- Inhibits nitric oxide and reactive oxygen species production
- Inhibits Th1 cytokine production (IFN γ , TNF α , IL- β , IL-6)



Acute Efficacy Demonstrated: Time to First Relapse

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



Phase III endpoint for certain FDA-approved MS p



MN-166 Overview-Safety

- MN-166 was very well tolerated, 89% of subjects completed the first 12 months of the study
- Discontinuation for AE was infrequent (placebo 1.2%, 30 mg/d 2.6%, 60 mg/d 3.1%)
- Side effects were generally mild and self-limiting
- No statistically significant adverse effects were observed
- No adverse laboratory or ECG findings
- GI side effects as a group were the only adverse events to occur at ~2-fold that of the placebo rate (placebo 7.8%, 30 mg/d 14.7%, 60 mg/d 22.2%)
- Tolerance to the GI side effects occurred rapidly (2-4 days)
- 12 serious adverse events were reported (placebo 4, 30mg-2, 60mg-6); all were not unlikely 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	MediciNova	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



Current Clinical Studies: MN-166-CL-001

Phase II placebo-controlled, randomized, double-blind 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 ~~Inclusion criteria~~ 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.



Partnering Opportunities

MN-001 (Bronchial Asthma)	Phase III ready
MN-001 (Interstitial Cystitis)	Phase II ready
MN-305 (Generalized Anxiety Disorder)	Phase II ready
MN-029 (Solid Tumors)	Phase II ready
MN-221 (Preterm Labor)	Phase II ready
MN-246 (Urinary Incontinence)	Phase I ongoing
MN-447 / MN-462 (Thrombosis)	Preclinical



Near-Term Clinical Milestones

MN-221 for Status Asthmaticus

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

MN-166 for Multiple Sclerosis

- Announce Two-Year Phase II Results expected 1H'08
- Pursue Corporate Partnership
- Phase III ready 2H'08

MedicInova is constantly evaluating opportunities to partner MN-166 and additional programs



Key Financials

Dual Listing:

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

Cash: \$75.96 M as of 9/30/07

Market cap as of 1/03/07: ~\$55.6 M

Shares outstanding: 11.9 M

Fully diluted shares outstanding: 14.0 M



Management Team with Global Experience



Leadership	Years Experience	Background
Yuichi Iwaki, MD, PhD CEO & President	32	Prof. USC, Formerly Prof. Pitt; Advisor to JAFCO, Tanabe Director, Avigen, Inc.
Richard Gammans, 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
Masatsune Okajima, CMA 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
 - Estimated \$500 M market opportunity for MediciNova

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
- Unique access to other differentiated, high-value assets