

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): November 10, 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") are scheduled to make a presentation at the Rodman and Renshaw 10th Annual Healthcare Conference on November 10, 2008 at 11:35 a.m. Eastern time. A copy of the slide presentation to be used by the Registrant at this conference is attached hereto as Exhibit 99.1 to this Current Report.

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 filing to this Current Report.

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.

Dated: November 10, 2008

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

EXHIBIT INDEX

Exhibit

Description

99.1

Slide presentation of the Registrant



*Accelerating
the global development
and commercialization of
innovative pharmaceuticals*



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 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 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 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 MediciNova's 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.



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 Acute Exacerbations of Asthma candidate
 - Potential \$500 M US opportunity for MediciNova
- MN-166: Oral Multiple Sclerosis candidate
 - In 2007, over \$8.2B in worldwide MS therapeutic sales*



**MNOV Headquarters:
San Diego, CA**

Key Financials:

- Dual listed company on NasdaqGM and Osaka Securities Exchange –
- ~\$27.2M Market Cap as of 9/30/08
- ~\$55.8M Cash, Cash Equivalents and Marketable Securities as of 6/30/08

*Source: MedAdNews, July 2008



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



Two Pathways Towards ROI After Phase II:

1. Continue internal development of compound towards commercialization
2. Seek partnership for further development of compound



MediciNova has focused its resources on its two prioritized product candidates, MN-221 and MN-166. Following completion of the Phase II trial of MN-166, MediciNova will not pursue further significant clinical development of MN-166 until a partnership is secured. In addition, MediciNova will pursue a variety of initiatives to monetize its remaining product candidates.



MEDICINOVA



Acute Exacerbations of Asthma

Definition:

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

Market Opportunity:

- Approximately 2 million emergency room visits in the US each year*
 - 500,000 hospitalizations in the US
- Approximately 4,000 deaths annually in the US*
- Potential \$500 M market opportunity for MediciNova

Current Standard of Care (SOC):

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

*Source: National Center for Health Statistics / CDC



MN-221: A New Approach to Treating Acute Exacerbations of Asthma

MN-221: A novel, highly selective β_2 -adrenergic receptor agonist

Three Potential Advantages over current therapy

1. Better delivery system (IV) = Better Bioavailability
2. Greater selectivity for β_2 receptors in the lungs (better binding)
3. Partial agonist for β_1 receptor in the heart

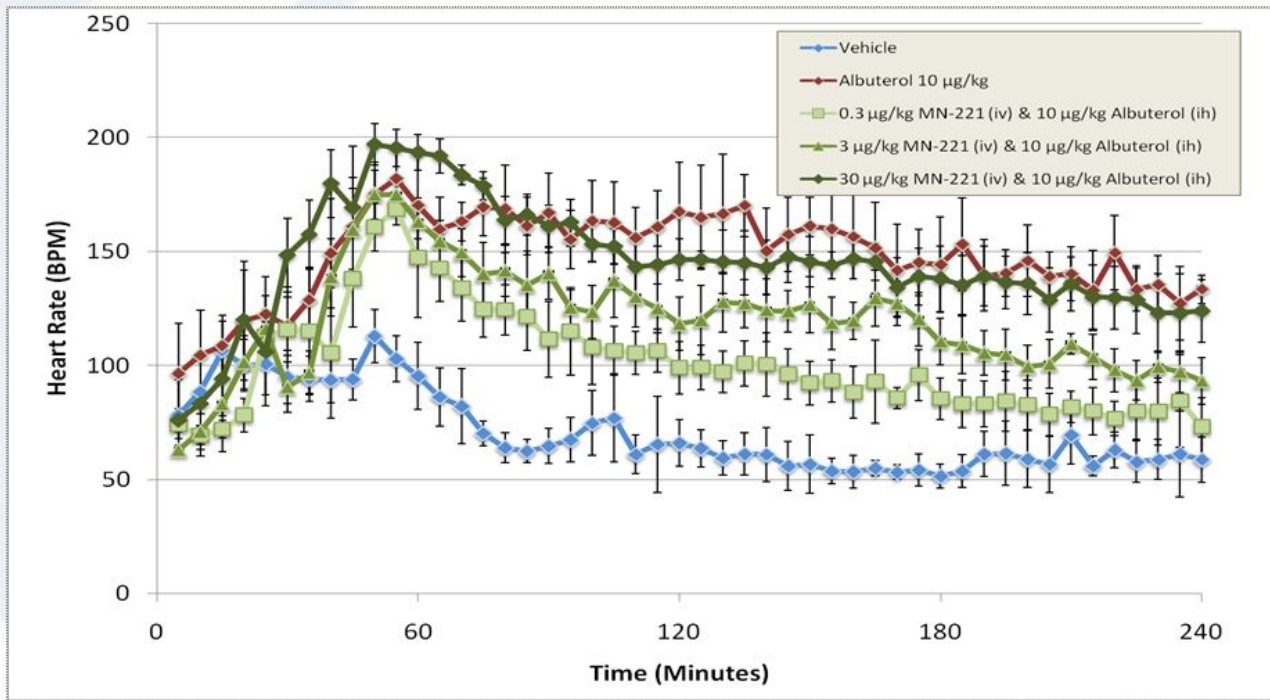


Human β -Adrenergic Receptor Selectivity

Test Drug	β_1 IC ₅₀ (M)	β_2 IC ₅₀ (M)	β_2 -Adrenoceptor Selectivity (IC ₅₀ for β_1 / IC ₅₀ for β_2)
Levalbuterol	7.40E-06	1.40E-06	5.3
Albuterol	9.40E-06	1.60E-06	5.9
Terbutaline	6.00E-05	6.50E-06	9.2
MN-221	5.90E-06	1.40E-07	42.4



Effect on Heart rate: Combination of MN-221 & Albuterol in Dogs





MN-221: Positive Phase IIa Data

MN-221-CL-004 Study Design

- Randomized, placebo-controlled, double-blind, dose escalation
- 23 subjects with mild-to-moderate stable asthma ($FEV_1 \geq 60\%$ predicted)
- Doses tested (all for 15 minutes):
 - 0.35 $\mu\text{g}/\text{min}$
 - 1.0 $\mu\text{g}/\text{min}$
 - 3.5 $\mu\text{g}/\text{min}$
 - 10 $\mu\text{g}/\text{min}$
 - 16 $\mu\text{g}/\text{min}$
 - 30 $\mu\text{g}/\text{min}$
 - 60 $\mu\text{g}/\text{min}$

MN-221-CL-005 Study Design

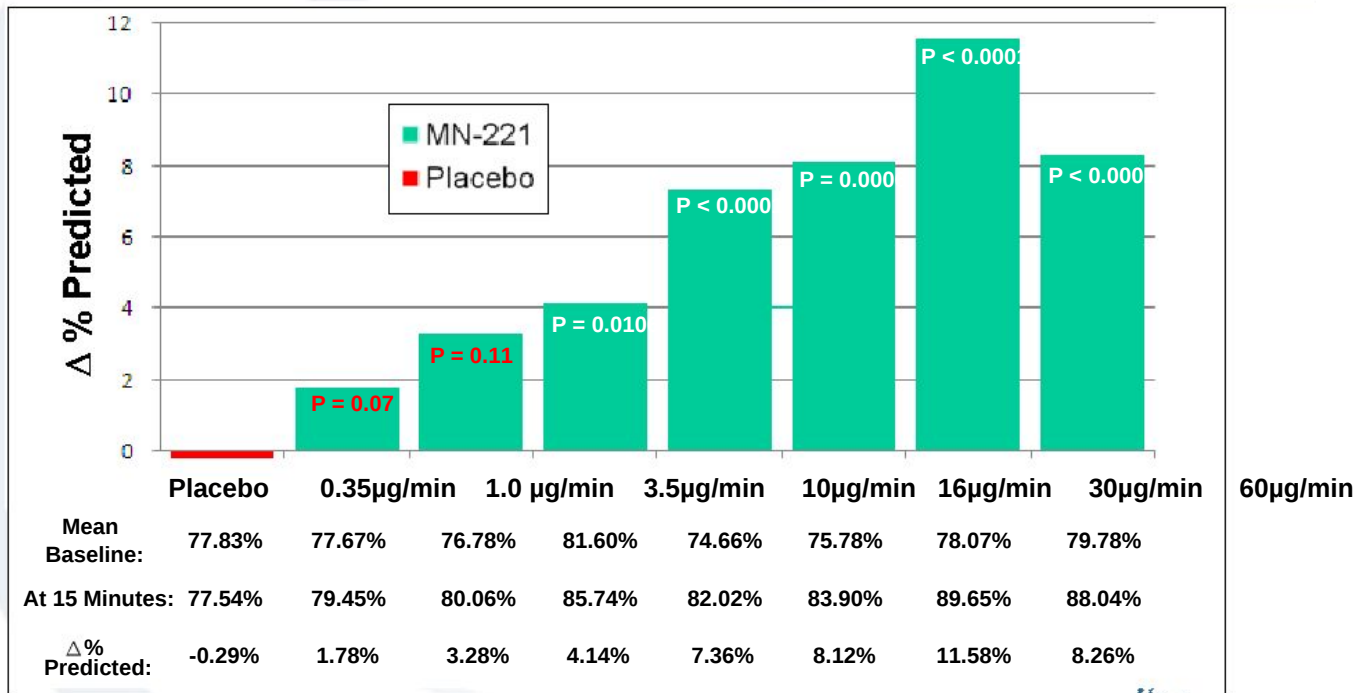
- Randomized, single-blind, placebo-controlled, dose rate escalation
- 17 subjects with moderate-to-severe stable asthma ($40\% \leq FEV_1 \leq 75\%$ predicted)
- Two doses tested:
 - 16 $\mu\text{g}/\text{min}$ for 15 minutes followed by 8 $\mu\text{g}/\text{min}$ for 105 minutes (2-hour infusion with total dose of 1,080 μg) or placebo
 - 30 $\mu\text{g}/\text{min}$ for 15 minutes followed by 15 $\mu\text{g}/\text{min}$ for 45 minutes (1-hour infusion with a total dose of 1,125 μg) or placebo

MN-221-CL-004 and MN-221-CL-005 Safety Data:

No clinically significant cardiovascular, ECG or vital sign changes, or other safety concerns observed at any dose tested

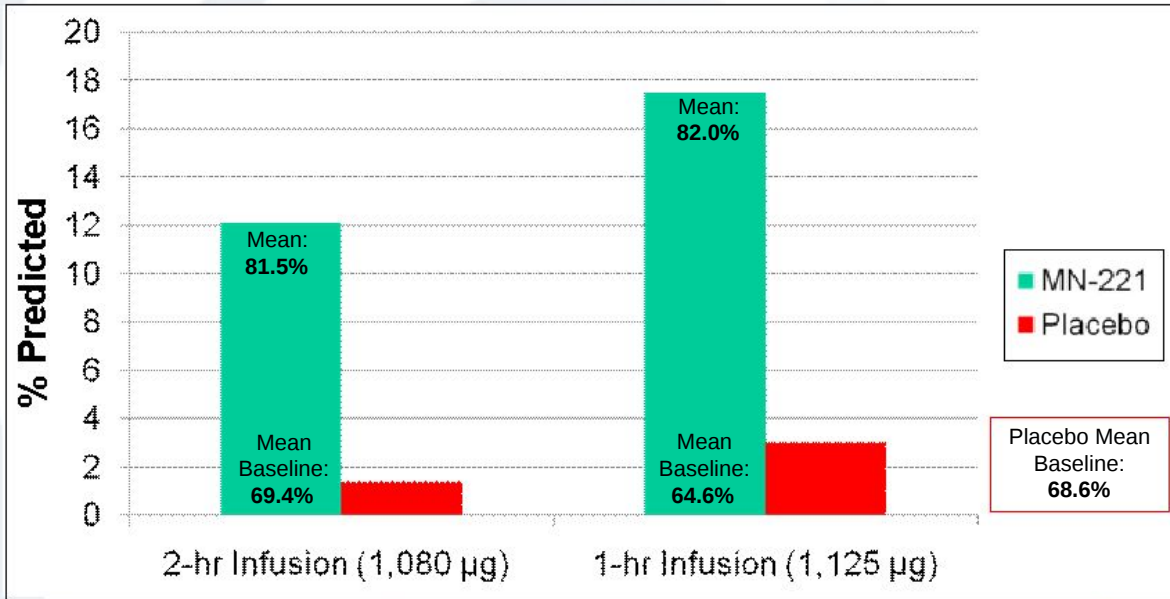


Mean Change in FEV₁ Study: MN-221-CL-004





Mean Change in FEV₁ Study: MN-221-CL-005





MN-221: Near-Term Clinical Milestone

MN-221-CL-006:

Phase II study commenced to test efficacy of MN-221 in acute exacerbations of asthma patients (~36 patients in 8 sites) in the emergency department

- Randomized, modified single-blind, placebo-controlled, dose escalation study
- Doses: 16 $\mu\text{g}/\text{min}$ x 15 min (240 μg)
30 $\mu\text{g}/\text{min}$ x 15 min (450 μg)
16 $\mu\text{g}/\text{min}$ x 15 min; 8 $\mu\text{g}/\text{min}$ x 105 min (1,080 μg)



Multiple Sclerosis

Definition:

Multiple sclerosis (MS) is an inflammatory demyelinating disease of the central nervous system (CNS), affecting approximately 500,000 people in the United States and 2 million people worldwide.

There is no cure for the disease.

Multiple Sclerosis Market:

Over \$8.2 B worldwide sales in 2007*

Current Standard of Care:

- Beta interferons (Rebif, Avonex, Betaserone), Copaxone
- Administered either by intramuscular or subcutaneous injection or infusion

*Source: MedAdNews, July 2008



MN-166: A New Approach to Treating Multiple Sclerosis

MN-166:

- Anti-inflammatory and neuroprotective properties *in vitro* and *in vivo*
- Demonstrated effects on brain volume and lesion evolution to axonal damage
- Targets primarily chronic aspects of multiple sclerosis
- Oral administration

Mechanisms of Action:

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



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 ~~InComatidated~~ 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:

Indicative of Potential Neuroprotective Effect:

1. Reduced Brain Volume Loss *P-Value: 0.030*
2. Reduced Conversion of Acute Lesions to Persistent Black Holes *P-Value: 0.011*
3. Sustained disability progression was significantly less likely *P-Value: 0.026*

Acute Clinical Benefit:

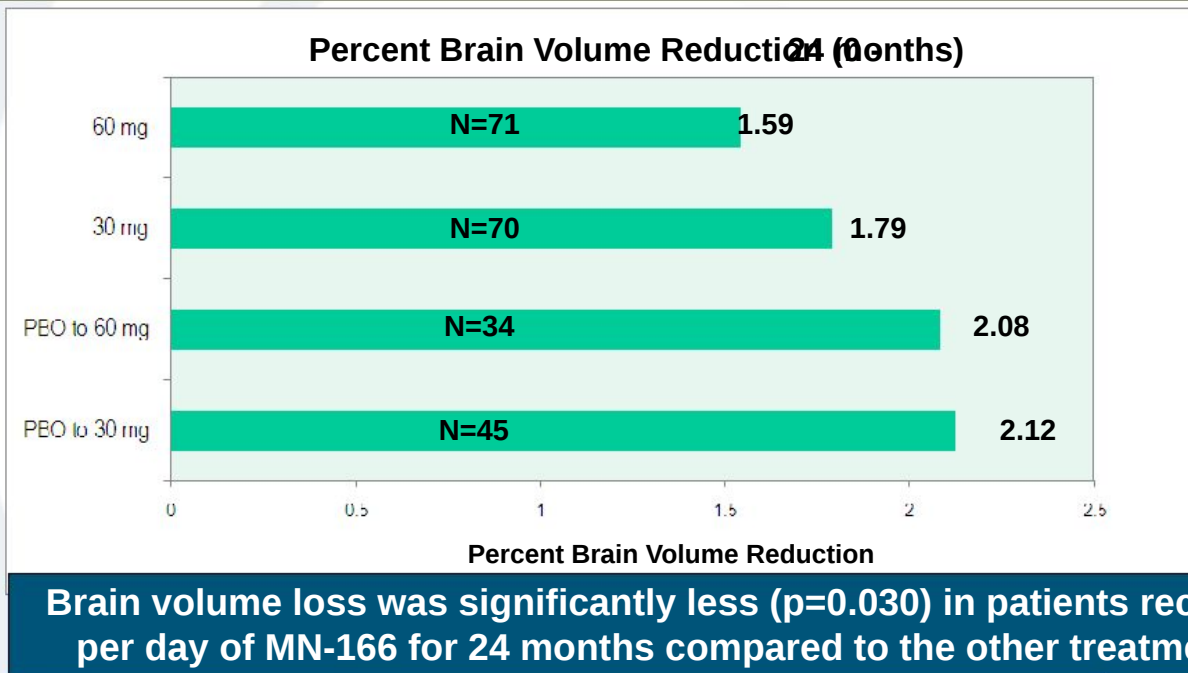
- Prolong time to relapse (by 127 days.) *P-Value: 0.044*

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 study
- 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



Chronic Efficacy Demonstrated: Effects on Brain Volume





Reduction of Persistent Black Hole (PBH) Formation

Parameter	Treatment Groups		
	Placebo	30 mg/day	60 mg/day
Number Patients w. New Lesions at Month 2	72	64	56
Total Number New Lesions in all Patients	426	338	315
Total Number of Persistent Black Holes	98	58	47
Proportion of Lesions Evolving to PBH	0.23	0.17	0.14
p Value	-	0.036	0.004

- New T1 gadolinium-enhancing or new T2 lesions were defined as NL in the first on-study MRI at month 2
- Lesions that were hypointense and inactive at month 10 were PBH
- Relative Risk (RR) of NL evolution to PBH was analyzed using a general linear model with the error term from the Poisson distribution



Sustained Disability Progression

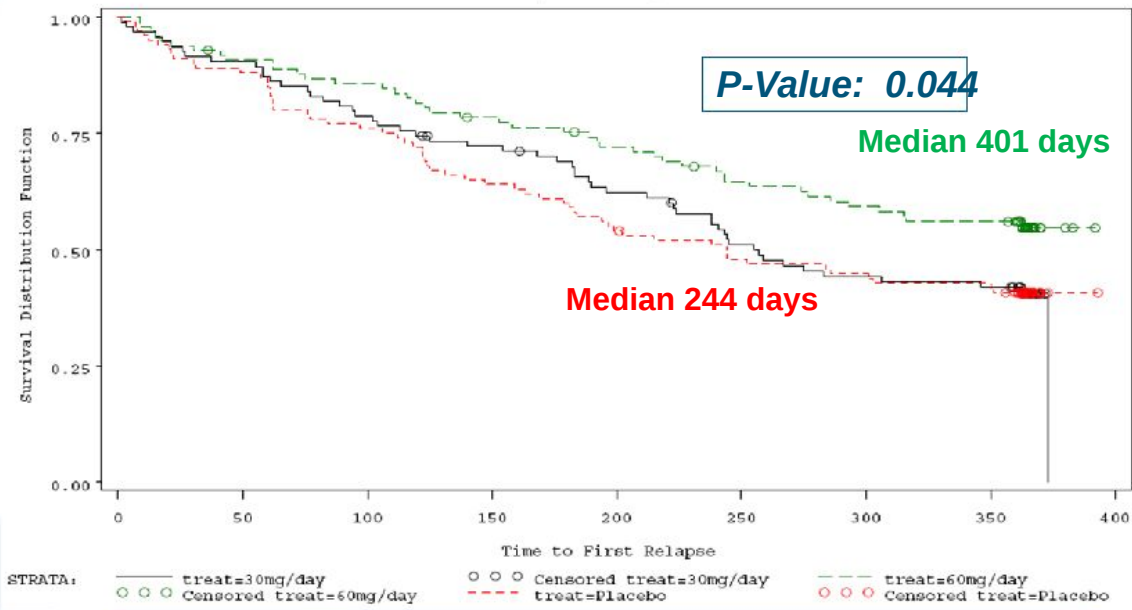
	TREATMENT	
Time Period	Placebo to Active (N=100)	Active Drug [30 mg (N=94), 60 mg (N=98)]
2 Years	21/100 (21%)	20/194 (10.4%) <i>P-Value: 0.026</i>

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



Acute Efficacy Demonstrated: Time to First Relapse

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





MN-166: NEXT STEPS

Seek Partnership for Further Development:

MediciNova's strategic objective for MN-166 is to secure a partner to advance the clinical development of MN-166, and MediciNova is actively pursuing that objective



Commercially-Attractive Diversified Portfolio

Core Candidates	Preclinical	Phase I	Phase II	Phase III
MN-166 (Multiple Sclerosis)	[Blue arrow spanning Preclinical, Phase I, and Phase II]			
MN-221 (Acute Exacerbations of Asthma)	[Blue arrow spanning Preclinical and Phase I]			
Non-Core Candidates	Preclinical	Phase I	Phase II	Phase III
MN-001 (Bronchial Asthma)	[Yellow arrow spanning Preclinical, Phase I, and Phase II]			
MN-305 (Anxiety Disorders)	[Yellow arrow spanning Preclinical and Phase I]			
MN-001 (Interstitial Cystitis)	[Yellow arrow spanning Preclinical and Phase I]			
MN-029 (Solid Tumors)	[Yellow arrow spanning Preclinical]			
MN-221 (Preterm Labor)	[Yellow arrow spanning Preclinical]			
MN-246 (Urinary Incontinence)	[Yellow arrow spanning Preclinical]			
MN-447/462 (Thrombosis)	[Yellow arrow spanning Preclinical]			



Key Financials

Dual Listing:

- MNOV (NasdaqGM), December 2006
- 4875 (OsakaHercules), February 2005

Cash, Cash Equivalents and Marketable Securities as of 6/30/08 :

~\$55.8 M as of 6/30/08

Market cap as of 9/30/08:

~\$27.2 M

Shares outstanding:

11.9 M



Management Team with Global Experience



Leadership	Years Experience	Background
Yuichi Iwaki, MD, PhD CEO & President	33	Prof. USC, Formerly Prof. Pitt; Advisor to JAFCO, Tanabe
Richard Gammans, PhD, MBA Chief Development Officer	31	Incara, Indevus, BMS
Shintaro Asako, CPA Chief Financial Officer	10	KPMG USA (Audit), Arthur Andersen USA
Michael Kalafer, MD Chief Medical Officer	25	Board Certified in Pulmonary Medicine, Critical Care Medicine and Internal Medicine. Associate Clinical Professorship of Medicine at UCSD School of Medicine since 1985
Masatsune Okajima, CMA VP, Head of Japanese Office	17	Daiwa Securities SMBC, Sumitomo Capital Securities, Sumitomo Bank





Investment Highlights

MN-221 (Acute Exacerbations of Asthma):

- Proven mechanism of action
 - Highly selective with improved safety profile vs. standard of care
- Positive Phase IIa efficacy data
- Near-term milestone: CL-006 results

MN-166 (Multiple Sclerosis):

- Both chronic and acute efficacy have been demonstrated in clinical studies completed to date
- MediciNova seeking a partner to advance the clinical development of MN-166

Minimized Burn Rate:

- Annual burn rate reduced compared to previous years as a result of focus on MN-166 and MN-221 development programs
- For 9/30/2008 Cash, Cash Equivalents and Marketable Securities, reference Quarterly Report on Form 10-Q filed 11/10/2008

Addendum: Additional Data



MN-221-Study 6 Design

- Randomized, modified single-blind, dose escalation, placebo-controlled Phase II Study in acute asthma patients in EDs
- Approx. 36 patients in 3 dose cohorts at 8 ED clinical sites
- Doses:
 - 16 μ g/min x15 (240 μ g)
 - 30 μ g/min x15 (450 μ g)
 - 16 μ g/min x15;8 μ g/min x105 (1,080 μ g)
- Patients will receive Standard of Care (SOC) treatment in addition to adjunctive treatment with MN-221 or placebo
- Safety and efficacy (FEV1 and other) data will be summarized
- No inferential statistical analysis
- Help inform design of future, larger Phase III clinical trials



MN-221: Safety

Phase II Study Safety Findings:

- No clinically significant cardiovascular, ECG, or vital sign changes, or 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

Safety Database:

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



There are substantial unmet needs in MS

Description

Efficacy
(relapse rate)

Safety/
tolerability

Administration

Combination

Neuroprotection

- Current agents offer only 30-50% relapse reduction
- Neutralizing antibodies can diminish efficacy over time
- Progression (RRMS) --neurodegeneration leads to permanent functional disability
- No approved treatment for PPMS, SPMS
- AEs—including flu-like symptoms
- SAEs –Rare, fatal PML and hepatotoxicity with Tysabri
- Reports of significant FTY side effects (e.g. hepatotoxicity), serious or fatal opportunistic infections, skin cancer
- Injections – daily up to weekly
- Infusions -- monthly
- Increasing interest in combination therapies given incomplete efficacy with current “core”agents
- Black box on combination with Tysabri, REMS program
- Historically, anti-inflammatory agents have shown little impact on disease progression
- Demonstrated neuroprotection, that is, reduction in disease progression, would be groundbreaking



Multiple Sclerosis Market*

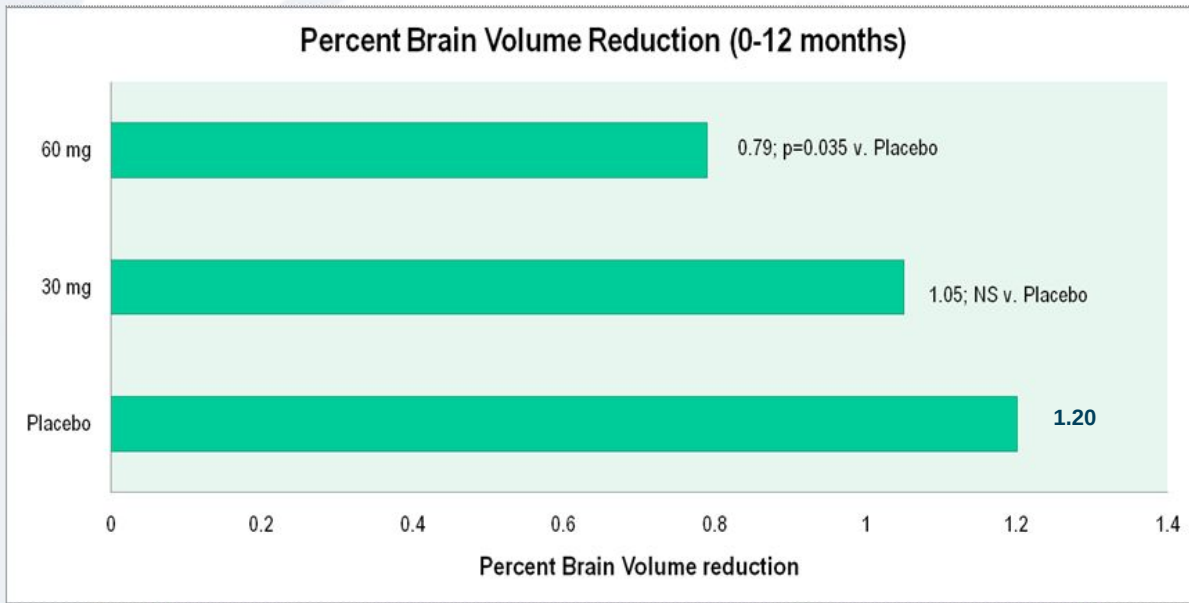
Approx. Sales 2007**	Compound	Sponsor	Side Effects
\$3.3 Billion	Copaxone®	Teva & Sanofi-Aventis	Pain, redness, swelling, itching, chest pain, weakness, infection, nausea, anxiety are most common, also heart palpitations and trouble breathing after injection
\$1.9 Billion	Avonex®	Biogen-Idec	Depression and Flu-like symptoms most common, also liver injury, severe allergic reactions, drop in red/white blood cell count
\$1.7 Billion	Rebif®	Serono & Pfizer	Depression and Flu-like symptoms most common, also liver problems, injection site problems, severe allergic reactions, trouble breathing/loss of consciousness
\$1.4 Billion	Betaseron®	Bayer	Lymphopenia, injection site reaction, asthenia, flu-like symptoms are most common, also necrosis at injection site
\$343 Million	Tysabri®	Biogen-Idec	Infections, depression, pneumonia, acute hypersensitivity reactions, appendicitis most common, also liver damage, PML

**All these top selling drugs for MS are immunomodulators*

***Source: MedAdNews, July 2008 and BIIB annual report 2007*



Chronic Efficacy Demonstrated: Effects on Brain Volume



Brain volume changes are linked to axonal l



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 2	72	64	56
# Patients w. ≥ 1 PBH (% of Pts. w. New Lesions)	41 (56.9%)	33 (51.6%)	28 (50%)
Mean Proportion of Lesions Evolving to PBH	0.24	0.20	0.16
Median Proportion of Lesions Evolving to PBH	0.17	0.08	0.04
Relative Risk (for Evolution to PBH) vs. placebo	-	0.74	0.63
p Value	-	0.074	0.011

- New T1 gadolinium-enhancing or new T2 lesions were defined as NL in the first on-study MRI at month 2
- Lesions that were hypointense and inactive at month 10 were PBH
- Relative Risk (RR) of NL evolution to PBH was analyzed using a general linear model with the error term from the Poisson distribution



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 60 mg/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