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): July 5, 2012

MEDICINOVA, INC.
(Exact name of registrant as specified in its charter)

DELAWARE	001-33185	33-0927979
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. 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 (see General Instruction A.2. below):

☐ 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 8.01 Other Events.

On July 5, 2012, MediciNova, Inc. (the "Company") updated the slide presentation to be used by the Company at investor meetings. A copy of the revised slide presentation is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) *Exhibits*.

Exhibit No.	Description
99.1	Slide presentation of the Company.

SIGNATURE

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/ Michael Gennaro
Michael Gennaro
Chief Financial Officer

Date: July 5, 2012

EXHIBIT INDEX

Exhibit No.	Description
99.1	Slide presentation of the Company.

Exhibit 99.1

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 statements regarding MediciNova's clinical trials supporting the safety and efficacy of its 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, 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," "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 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; MediciNova's ability to realize the anticipated strategic and financial benefits from its acquisition of Avigen, Inc., to integrate the two ibudilast development programs and to pursue discussions with potential partners to secure a strategic collaboration to advance the clinical development of the combined development program; the availability of funds to complete product development plans and MediciNova's ability to raise sufficient capital when needed, or at all; MediciNova's ability to comply with the covenants in its financing agreements; 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, 2011 and its subsequent periodic reports on Forms 10-Q and 8-K. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of July 3, 2012. MediciNova disclaims any intent or obligation to revise or update these forward-looking statements.

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Corporate Overview: MediciNova, Inc.

MediciNova Overview:

- Founded in September 2000
- Headquartered in San Diego, CA, with an office in Tokyo, Japan
- Dual listing on NasdaqGM as **MNOV** and Osaka Securities Exchange as **4875**
- $37.5 million market cap (NasdaqGM) as of 6/26/2012 (aggregate value of 18.3 million shares outstanding of common and preferred on an as converted basis)

In-Licensed Clinical Stage Compounds:

- Unique access to differentiated, potentially high-value assets primarily from Japanese alliances (Kissei, Kyorin, Mitsubishi Tanabe Pharma, Meiji)

New Approaches to Treat Serious Medical Conditions:

- Bedoradrine Sulfate (**MN-221**): Intravenous (IV) treatment for acute exacerbations of asthma and chronic obstructive pulmonary disease (COPD)
- Ibudilast (**MN-166**): Oral treatment for progressive multiple sclerosis, neuropathic pain, and drug addiction

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Business Model:
Return On Investment

In-License:

- Novel, small-molecule product candidates with significant clinical or preclinical data packages and attractive market opportunities

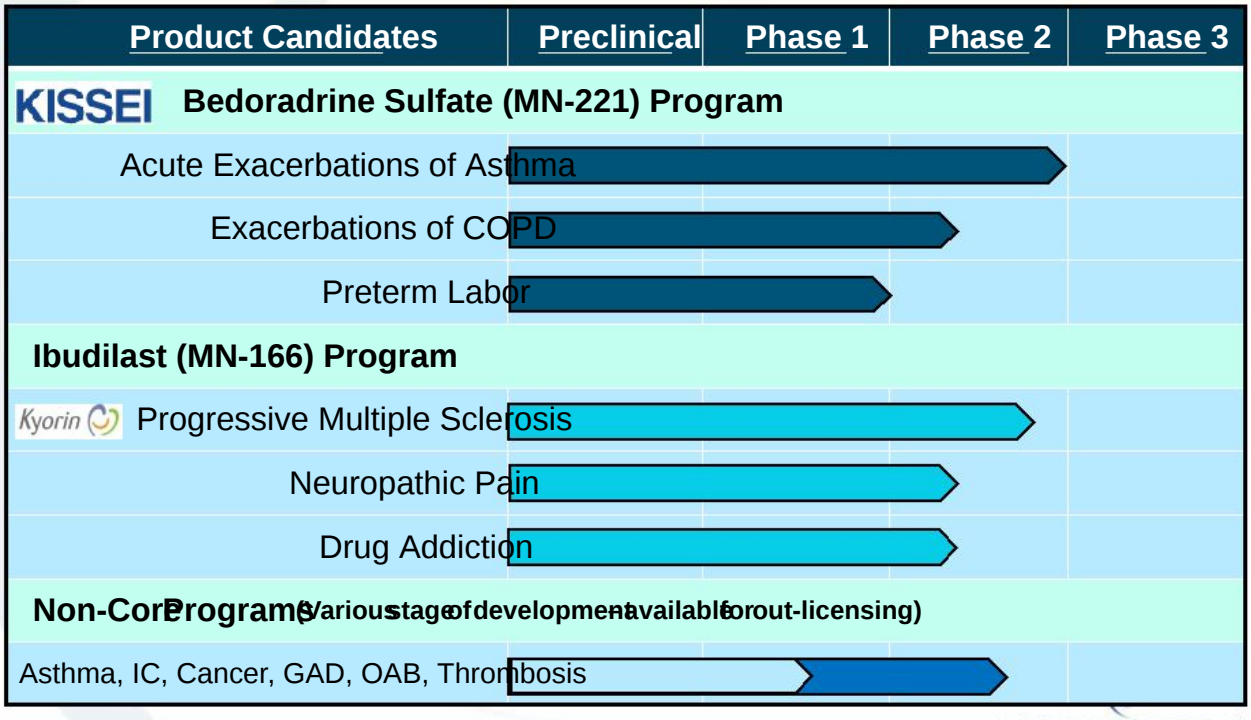
Conduct Proof-of-Concept Clinical Trials:

- Conduct Phase 1 and Phase 2 clinical trials to demonstrate safety and efficacy of compound

Two Pathways After Phase 2 (Proof-of-Concept):

1. Internal development of compound towards commercialization in North America
2. Seek partnership for further development of compound

Commercially-Attractive Diversified Portfolio



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Significant Milestones

Milestone:	Timeline*:
☑ Receive Use Patent for Ibudilast in Progressive MS Patients	1Q, 2012
☑ Results from Phase 2b MN-221-CL-007 Acute Asthma Trial	2Q, 2012
☐ Top-line Results from Phase 1b Multi-Dose Trial in COPD	3Q, 2012
☐ Plan to Announce Phase 2 Clinical Program for Ibudilast (Asthma)	3Q, 2012**
☐ Plan to Announce Phase 2 Clinical Program for Ibudilast (MS, Pain)	4Q, 2012**
☐ End of Phase 2 Meeting with FDA for MN-221 Development	4Q, 2012
☐ Commence Pivotal MN-221 Trial	1H, 2013

**Anticipated completion dates based on current projections*
***Tentative based on availability of non-dilutive financing*

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MN-221:

- ***Acute Exacerbations of Asthma***
- ***Exacerbations of COPD***

Acute Exacerbations of Asthma (AEA)

Definition:

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

Market Opportunity*:

- Approximately 1.9 million annual emergency room visits in the U.S.
  - ~500,000 annual hospitalizations in U.S. (~560,000 in UK/Spain/Germany/France/Italy)
    - Average length of stay for asthma hospitalization is 3.3 days (U.S.)
    - Average cost for asthma hospitalization is $6,477
- Roughly 50% of subjects do not initially respond to standard care

Current Standard of Care (SOC):

- Inhaled beta agonists, inhaled anticholinergics, and IV or oral corticosteroids
- Current Treatments are limited by **Bronchoconstriction** (Insufficient airflow due to inflammation and airway constriction prevents inhaled drug uptake in the lungs) and **Mucus Plug Formation** (Persistent airflow limitation due to mucus secretion

Source: National Center for Health Statistics / CDC, WHO website, "Core Health indicators", 2007 National Hospital Discharge Survey, IMS Health's Disease and Condition Benchmarks – PharMetrics Integrated Database, 1/2007 – 12/2008

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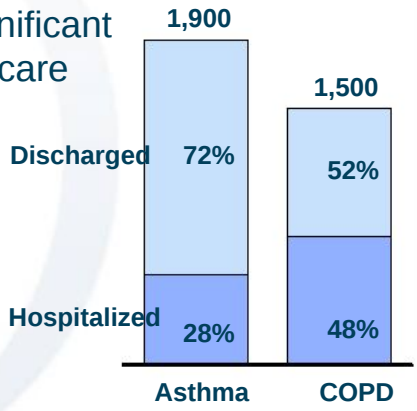
COPD Exacerbations

A COPD exacerbation is a sustained worsening of the patient's condition, from the stable state and beyond normal day-to-day variations, that is acute in onset.

COPD exacerbations are associated with a significant increase in mortality, hospitalization and healthcare utilization.

- 1.5 million hospital emergency department visits
- 765,000 hospitalizations
  - Average length of stay 7.4 days*
  - Average cost ~$32,000*
- 119,000 deaths

Hospitalization rates amongst Asthma and COPD patients



COPD patients are generally more ill than asthmatics with overall higher hospitalizations and mortality.

Source: CDC, CDC COPD surveillance in U.S.; US Census; American Lung Association website
**For COPD pts. with anemia; for pts. w/o anemia the stay is ~5.8 days at a cost of ~$25K*

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MN-221: A New Approach to Treating Acute Exacerbations (Asthma & COPD)

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

Potential advantages over current therapy:

1. **Improved Efficacy**
   - Route of administration (IV vs. inhalation)
   - Facilitates bronchodilation and onset clinical improvement
2. **Improved Safety**
   - High selectivity for β_2 receptor versus β_1
   - Partial agonist for β_1 receptor*
3. **Reduced Health Care Expenses**
   - Reduction in hospitalizations; Return ER visits

**β_1 receptors are primarily responsible for cardiovascular stimulation*

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Acute Asthma Treatment Flow in Emergency Departments (EDs) in the U.S.

Input:
1,900,000 patients with acute exacerbations of asthma present at U.S. EDs annually

1st line therapy in ED:
Patients receive SOC, many while in the waiting room

2nd line therapy in ED:
Patients who do not initially respond continue receiving SOC

Hospitalization:
Patients who do not respond to SOC are eventually hospitalized

Large Market Opportunity for MN-221

COST ~ $6,477/patient

965,000
Patients who respond to initial therapy and are discharged

410,000
Patients who eventually respond to standard therapy and are discharged

Source: Weber, Silverman et al, American Journal of Medicine, Volume 113; pp 371

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MN-221 for Treatment of AEA:
Pivotal Trial Development Strategy

End-of-Phase 2 Meeting with the FDA

- ✓ Scheduled for Monday, October 22nd, 2012

Pivotal Trial Design Modifications from Phase 2 Clinical Trial Based on these Core Principles*:

1. Primary Endpoint should be FEV_1 improvement at Hour 1 (delta) or AUC through Hour 2
2. Reduced variability (FEV_1 methodology, control for standard-of-care medications between study arms)
3. Larger sample size
4. Simpler Protocol for ease of enrollment
5. Include standardized clinical assessment at end of treatment period as secondary endpoint

**Tentative based on outcome of End-of-Phase 2 meeting with the FDA*

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MN-221-CL-007: Phase 2 Trial
Goals

Goals of the Phase 2b Clinical Trial:

1. Assess Efficacy adjunctive to SOC treatment
2. Establish Safety
3. Validate Proof-of-concept (POC) and Determine Pivotal Trial Design
4. Develop a basis for a successful End-of-Phase 2 Meeting with the FDA

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MN-221-CL-007: Phase 2 Trial

Study Design

- Randomized, placebo-controlled, double-blind, multi-center Phase 2 clinical trial
- 175 patients enrolled with acute exacerbations of asthma at multiple US ED sites
  - 164 patients in the Efficacy Evaluable (EE) population; some patients early-terminated from the study
- Two treatment groups (1:1 randomization)
  - 1,200µg infusion of MN-221 over 1hr + Standard-of-Care (SOC)
  - Placebo infusion + Standard-of-Care
- Primary Efficacy Endpoint was AUC of change in FEV_1 hours 0 - 3
- Important Secondary Endpoints include:
  - Improvements in FEV_1 at other time points
  - Clinical improvement outcomes: Dyspnea score, Respiratory Rate
  - Pharmacoeconomic benefits – Hospitalization admissions and Return ER visits*

**As captured in the seven-day patient follow-up; not official secondary endpoint per protocol.*

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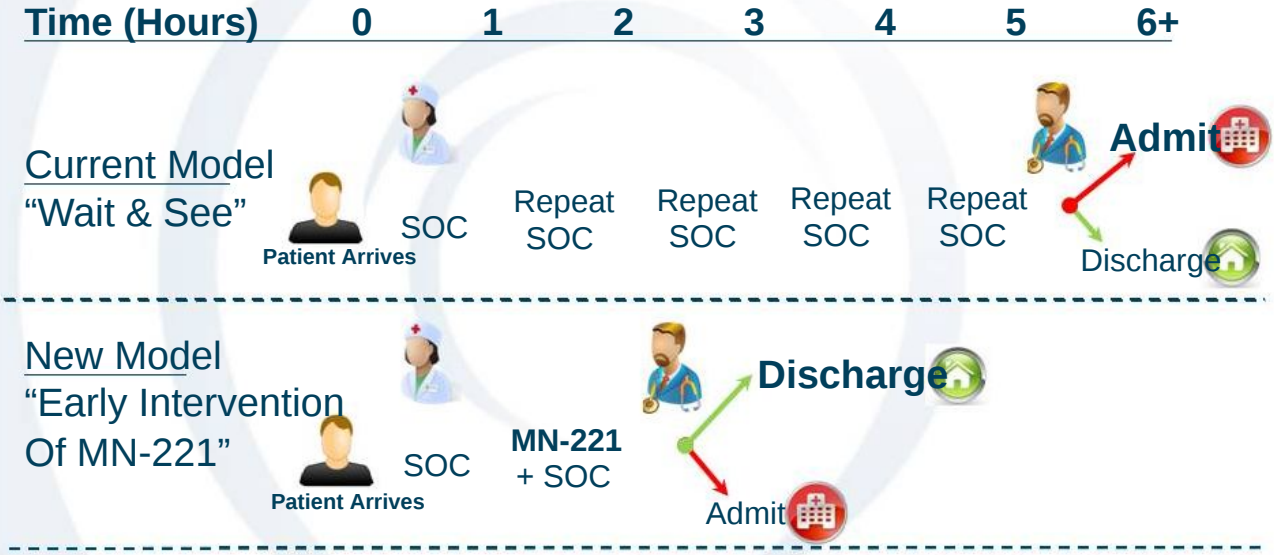
MN-221:
Potential New Model for Treating AEA in the ER



- ***ER cost per hour per patient is expensive***
- ***The longer the patient is in the ER the greater the probability of hospital admission***

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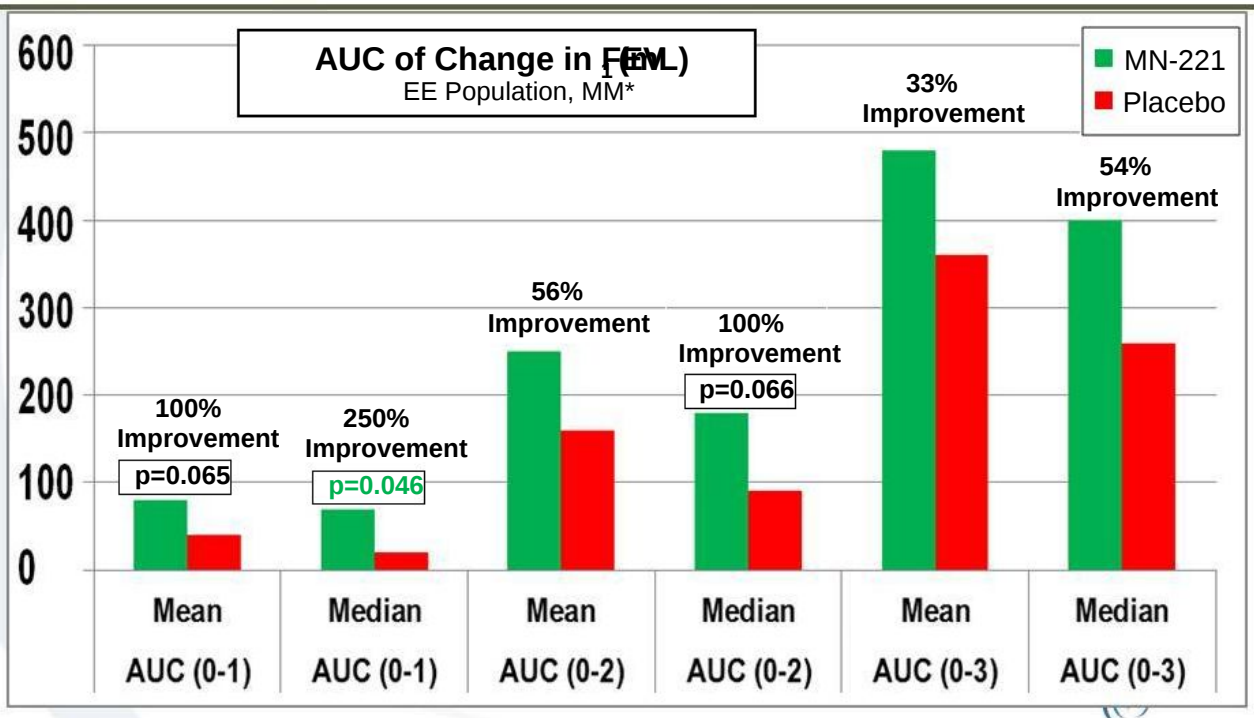
MN-221-CL-007:
Efficacy Endpoints for FEV1



**EE = Efficacy Evaluable Population; MM= Mixed Model was used for statistical analysis of efficacy parameters*

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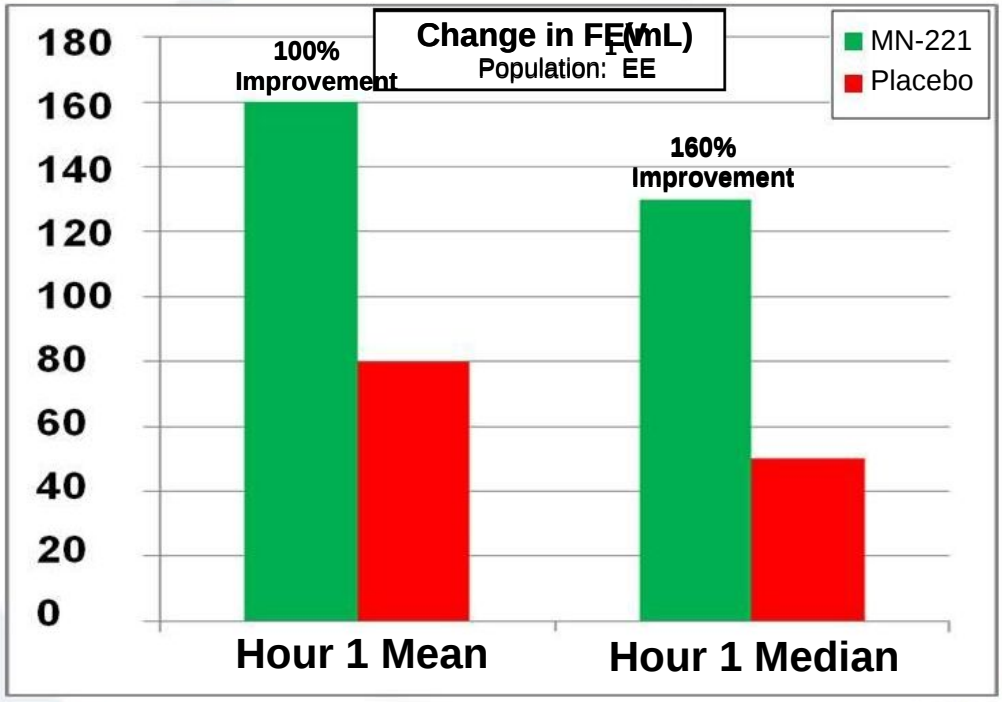
MN-221-CL-007:
Change in FEV_1 at Hour 1



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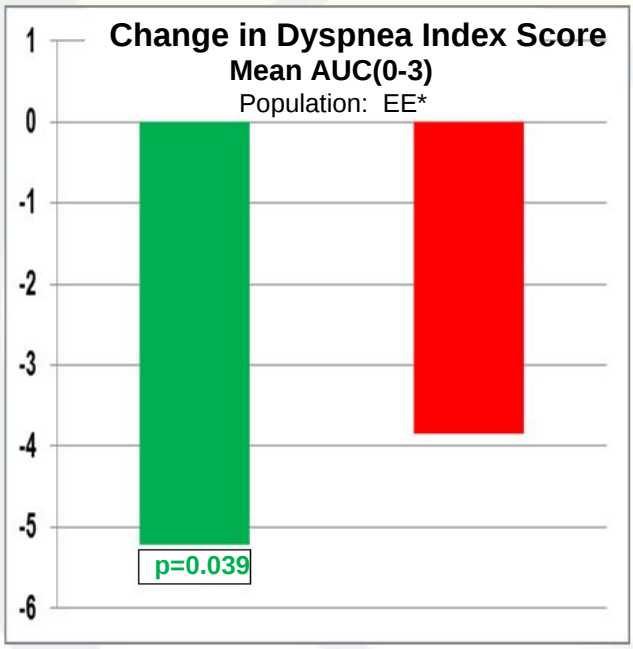
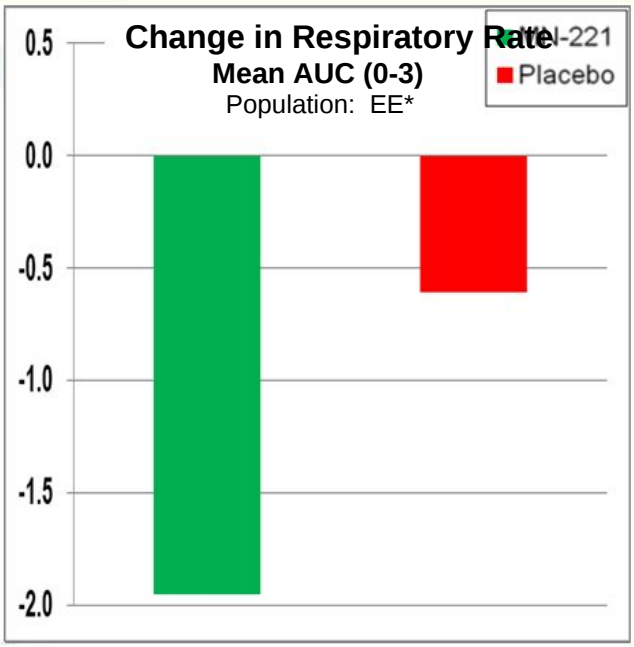
MN-221-CL-007:
Improvements in Clinical Symptoms



Units are dyspnea index score (0-10 scale; 5=severe, 3=moderate, 2=slight)



Units are breaths/min.

**EE = Efficacy Evaluable Population*

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MN-221-CL-007:
Analysis of High Responders

Analysis of High Responders:
FEV_1 Improvement at Any Time Point during the Treatment Period
EE population*

FEV_1 Improvement	Placebo (%)	MN-221 (%)	P-value
≥ 200mL	37 / 77 (48%)	48 / 78 (62%)	0.09
≥ 10% pred.	25 / 77 (32%)	34 / 78 (44%)	0.15

**EE = Efficacy Evaluable Population*

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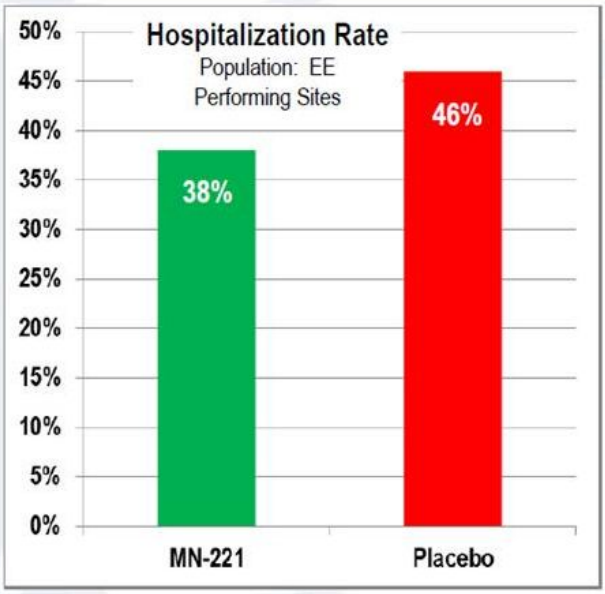
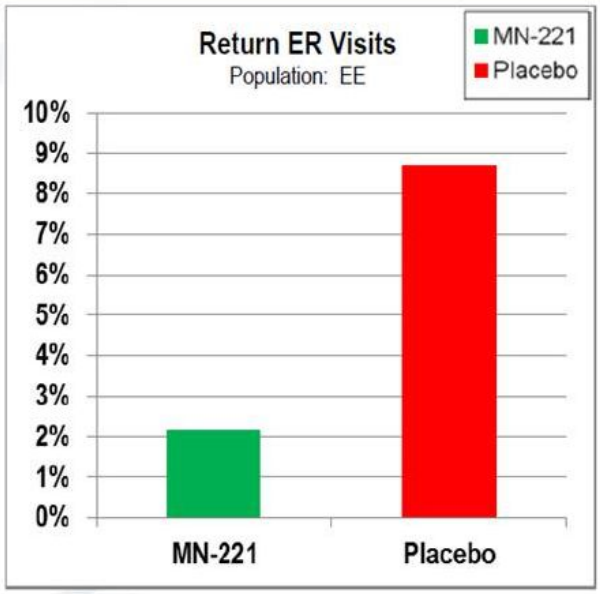
MN-221-CL-007: Phase 2 Trial

Pharmacoeconomic Benefits



The addition of MN-221 resulted in a 17% reduction in hospital admissions*



A higher percentage of patients in the placebo group returned to the ER within 7 days

**EE = Efficacy Evaluable Population; Performing Sites analysis includes patients from sites completing more than 2 patients during the trial and for which all efficacy measurements were available.*

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MN-221-CL-007: Phase 2 Trial

MN-221 Met its Goals of the Phase 2 Program

1. **Assess Efficacy adjunctive to SOC treatment**
   - ✓ MN-221 group showed improvement over placebo group in measurements of lung function
   - ✓ MN-221 showed a notable reduction in hospital admissions in performing sites and a notable reduction in ER return visits
2. **Establish Safety**
   - ✓ No Serious Adverse Events related to MN-221; >400 subjects exposed
3. **Affirm POC and guides Trial Design for Pivotal Trials**
   - ✓ Endpoint modifications, Larger ‘n’, reduced variability with protocol and standard-of-care treatments, and clinical assessment of improvement at end of treatment
4. **Develop a basis for a successful End-of-Phase 2 Meeting with the FDA**
   - ✓ Meeting Scheduled for October 22, 2012

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MN-221-CL-012:
Ongoing Phase 1b/2a COPD Trial

- Randomized, placebo-controlled, double-blind, Phase 1b/2a clinical trial
- ~20 stable moderate-to-severe COPD patients (FEV_1 = 30%-80%)
- Two treatment groups
  - 1,200µg infusions of MN-221 every 12/24 hours (15 pts.) over 4 days
  - Placebo (5 pts.)
- Primary objective is to determine the safety and tolerability of MN-221 administered **multiple times** over several days in COPD patients who may also have **co-morbidities** and **concomitant medications** common in this population.
- Secondary objectives include pharmacokinetics, preliminary efficacy of repeated administration of MN-221 in COPD patients, and testing of a simple, hand-held digital FEV_1 & Peak Flow monitoring device.
- **Top-line results expected 3Q, 2012**

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MN-221:

- ***Market Opportunity***
- ***Patent Summary***
- ***Next Steps***

MN-221 Market Opportunity*

Market	Acute Asthma	COPD Exacerbations
US	$375-400 million	$380-420 million
Europe	$200-300 million	$200-300 million
Rest of World	$150-250 million	$150-250 million
Worldwide MN-221 Sales Potential	$725-950 million	$730-970 million
Combined Worldwide MN-221 Sales Potential	**$1.5-1.9 Billion**	

**Prices in today's dollars, do not reflect any price increases which may be implemented; Assumes a conservative price per dose target ~$550/dose*

Source: Physician interviews, team analysis

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MN-221 Patent Summary

- The U.S. patent for MN-221 has composition of matter and method of use claims and is set to expire no earlier than February 2017
  - Corresponding composition of matter patents in various other countries
  - U.S. patent expiration does not include Waxman-Hatch patent term restoration (industry average = 4.5 years)
  - Waxman-Hatch grants 5 years of exclusivity from approval in the U.S. *(We anticipate this along with pediatric exclusivity and ANDA review time will give us at least 7.0 years of exclusivity)*
- Exclusivity in Europe is 10 years for first approval of new chemical entities
- In addition, MediciNova has filed multiple patent applications related to MN-221 which if granted, could protect MN-221 until at least 2030

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MN-221 Next Steps

1. Complete COPD Phase 1b/2a Clinical Trial
   - ❑ Important Safety data of multiple infusions
   - ❑ Validation of hand-held spirometry device
2. Market Analysis
   - ❑ Collaborate with leading market research firm to quantify the value of reduced hospital admissions
   - ❑ Quantify the value of reduced ER visits
3. End-of-Phase 2 Meeting with the FDA
   - ❑ Scheduled for Monday, October 22nd, 2012
   - ❑ Confirm endpoints and trial design for pivotal program; Review overall development plan
4. Strategic Partnership Discussions Ongoing

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Ibudilast (MN-166/AV-411):

- ***Progressive Multiple Sclerosis***
- ***Neuropathic Pain***
- ***Addiction***

Ibudilast (MN-166) Overview

Ibudilast (MN-166)

- Oral administration
- Safe and well tolerated
  - Approved in Japan/Korea over 3.2M patient exposures
  - >420 subjects treated with ibudilast
  - Dosing up to 100 mg daily doses
- Mechanism(s) of action primarily:
  - Inhibition of macrophage Migration Inhibitor Factor (MIF)
  - PDE-4,10 inhibition
  - Neurotrophic action and attenuation of glial cell activation

Clinical Safety & Preliminary Efficacy Established

- Phase 2 multiple sclerosis proof-of-concept study
  - Indicators of dose-related neuroprotective efficacy validated
- Phase 1 dosing to 100 mg/d
- Phase 1b/2a trial in diabetic neuropathic pain completed
- Phase 1b/2a clinical trial in opioid withdrawal & analgesia completed

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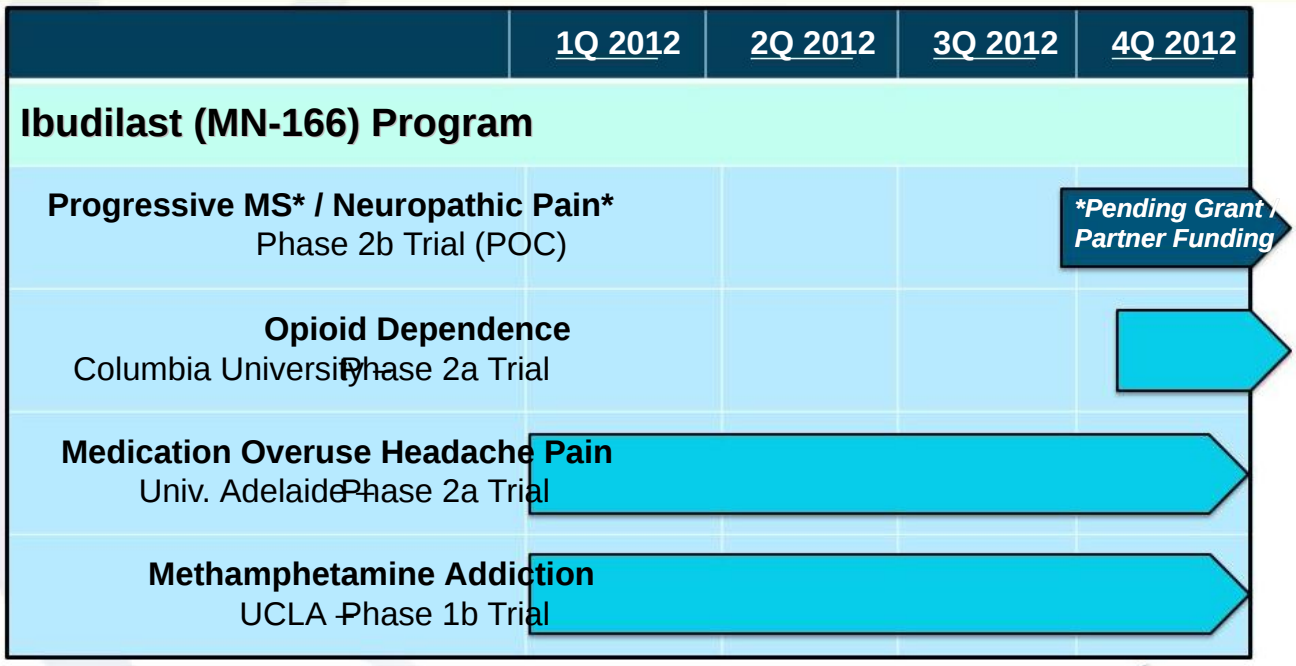
Ibudilast (MN-166) Program:
Ongoing and Future Development



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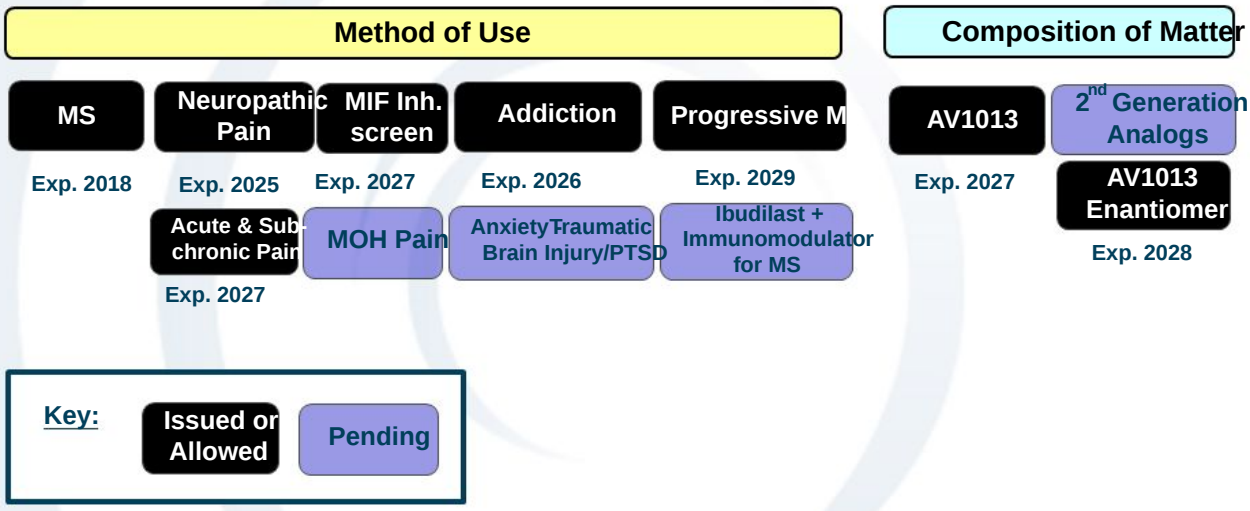
Strategy for Ibudilast's Development

- **Sustain NIDA-sponsored Drug Addiction Development**
  - Potential for Phase 2 POC Trial support
- **Potential for Gov't and MS Society consortium funding of Phase 2 Progressive MS POC Trial**
- **Collaboration with Development Partner:**
  1. Advance to Phase 2b Proof-of-Concept in MS and/or Pain
  2. Provide competitive economics for first in class therapy
  3. Could be collaboration through:
     i. Pharma partner
     ii. Project financing
     iii. Shared-risk with competitive CRO agreement
- **Consider Investigator-sponsored Neurological Trials in Focus Areas**

Patent/Commercial Overview



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Management Team with Global Experience






Leadership	Years Experience	Background
Yuichi Iwaki, MD, PhD CEO & President	35	Professor at USC, formerly Professor at University of Pittsburgh; Advisor to JAFCO, Tanabe
Michael Coffee Chief Business Officer	26	Avigen, Amarin Corp., Elan Pharmaceuticals, N.A., Athena Neurosciences
Kirk Johnson, Ph.D. Chief Scientific Officer	21	Avigen, Genesoft Pharmaceuticals, Chiron Corporation (Novartis – San Francisco)
Masatsune Okajima, CMA VP, Head of Japanese Office	19	Daiwa Securities SMBC, Sumitomo Capital Securities, Sumitomo Bank
Kazuko Matsuda, M.D., Ph.D., MPH Chief Medical Officer	20	Assistant Professor USC, Keck School of Medicine; Children's Hospital Los Angeles.
Michael Gennaro, CPA, MBA Chief Financial Officer	37	Partner at FLG Partners, Sylantro Systems, Inverse Network Technology, Novell, Piiceon, Verticom

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Financial Overview

Financial Resources:

- **$11.0 million** in cash & cash equivalents as of 3/31/2012
- Including $10 million raised through equity sale and non-dilutive funding by Kissei
  - $7.5 million raised in private stock sale to Kissei Pharmaceutical Co., Ltd.
  - $2.5 million additional non-dilutive R&D funding from Kissei
- ~18.3 million shares outstanding on an as converted basis
- Cash Runway into 2013

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MediciNova Corporate Summary

- ❖ Translational Medicine & Clinical development expertise
- ❖ Strong international presence, especially Japan
- ❖ Large and small pharma/biotech experience

1. Announced Results from CL-007 Trial - Q2
2. Announce Results from CL-012 Trial - Q3
3. Announce Phase 2 Trial(s) for Ibudilast - Q4
4. End-of-Phase 2 Meeting with FDA - Q4

- ➢ Raised ~$18M in 2011
- ➢ Cash Runway into Q2, 2013

**Anticipated completion dates based on current projections*

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Addendum

Data from Completed Trials

- *MN-221*
- *Ibudilast (MN-166/AV411)*

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MN-221:

Data from Completed Trials

- **Asthma Program:**
  - **CL-004, CL-005, CL-006, CL-007**
- **COPD Program:**
  - **CL-010**
- **Safety Review**

MN-221 Clinical Development

Acute Asthma Program:

- Multiple doses tested at infusion length of 15min, 1hr, and 2hr
- Completed 2 trials in asthmatics with stable disease
  - **CL-004** (23patients)
  - **CL-005** (17patients)
- Completed Phase 2a trial in patients with AEA in the ED
  - **CL-006** (29patients)
- Completed Phase 2b study in patients with AEA in ED
  - **CL-007** (175pts.)
- End of Phase 2 Meeting with FDA
  - Scheduled for **October 22nd**

COPD Program:

- Multiple doses tested at 1 hour infusion
- Completed 1 trial in COPD patients with stable disease
  - **CL-010** (48patients)
- Preparing to initiate multi-dose trial in patients with stable COPD
  - **CL-012** (20patients)
    - Efficacy and Safety data will also be very useful in further development of MN-221 for acute asthma

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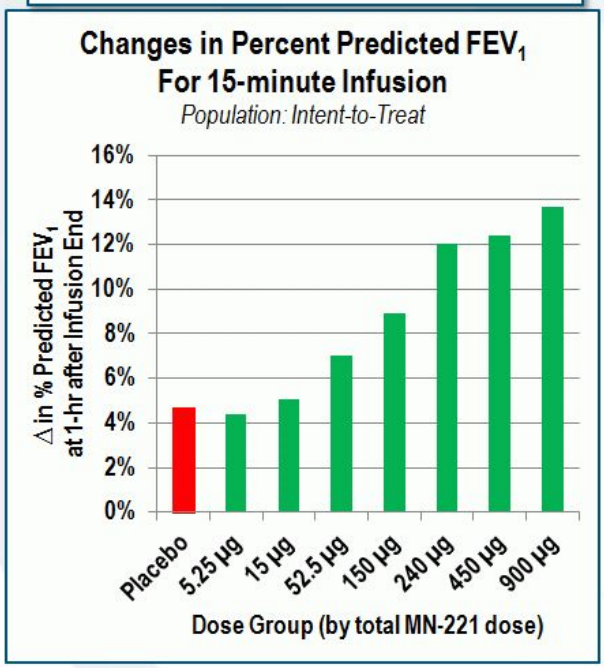
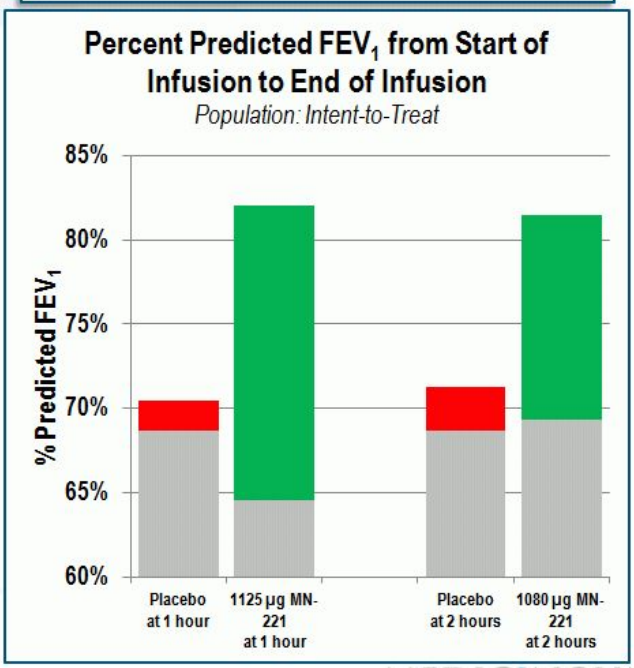
MN-221 Clinical Results
Improved Lung Function at Different Dosing Levels: Stable Asthmatics

CL-004: Stable Mild/Moderate Asthmatics



CL-005: Stable Moderate/Severe Asthmatics



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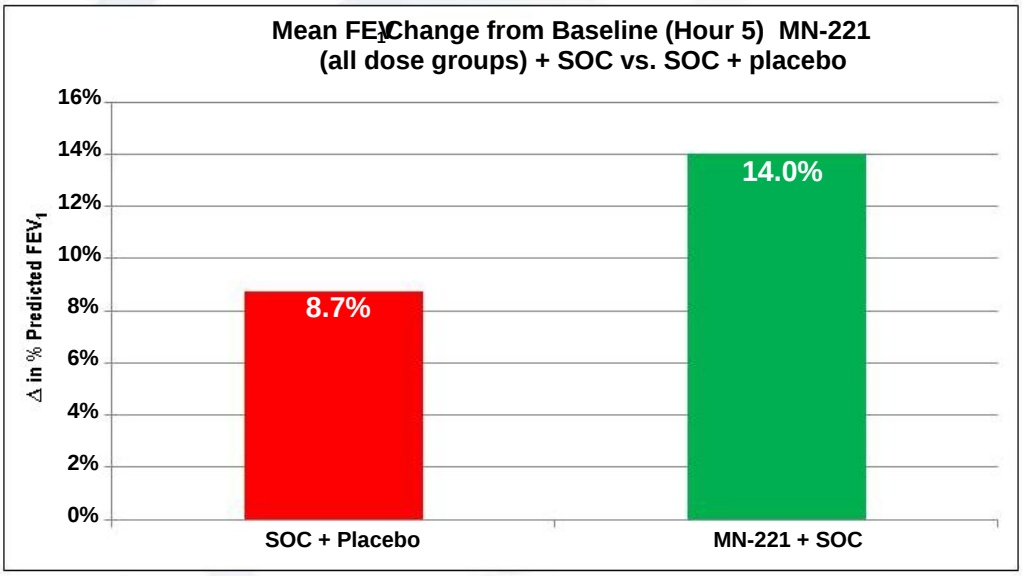
MN-221 Clinical Results
Improved Lung Function and Clinical Outcome Above and Beyond Standard of Care (SOC)

CL-006: Patients Suffering from Acute Exacerbation of Asthma in Emergency Department



Mean change in FEV_1 from baseline was 5.3% higher in the MN-221 dose groups versus the placebo group

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MN-221-CL-007: Phase 2 Trial
Subject Populations

	Placebo	MN-221
Enrolled subjects	86	89
Safety population	84	83
EE population	83	81
Performing Sites population	70	72

Definitions of Note:
EE = Efficacy Evaluable Population
Performing Sites Population: analysis includes patients from sites completing more than 2 patients during the trial and for which all efficacy measurements were available.

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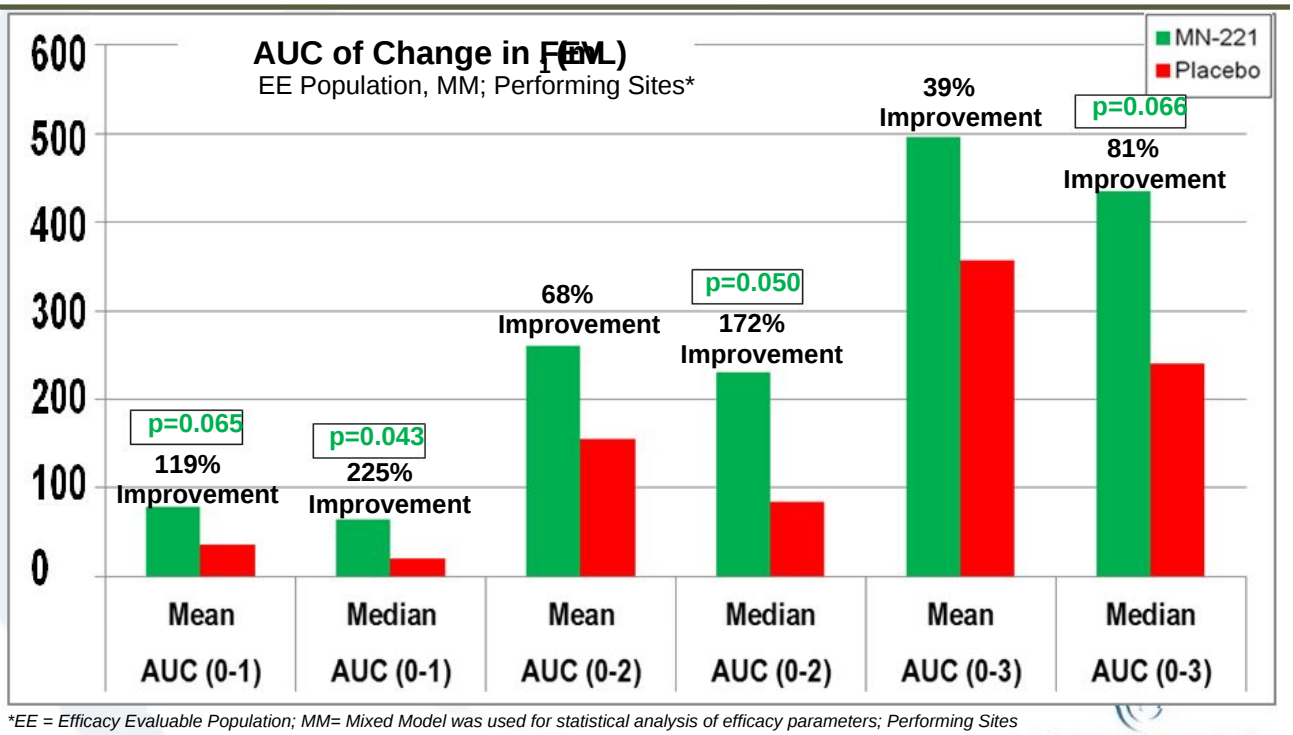
MN-221-CL-007: Phase 2 Trial

Efficacy Endpoints for FEV_1



EE = Efficacy Evaluable Population; MM= Mixed Model was used for statistical analysis of efficacy parameters; Performing Sites analysis includes patients from sites completing more than 2 patients during the trial and for which all efficacy measurements were available.

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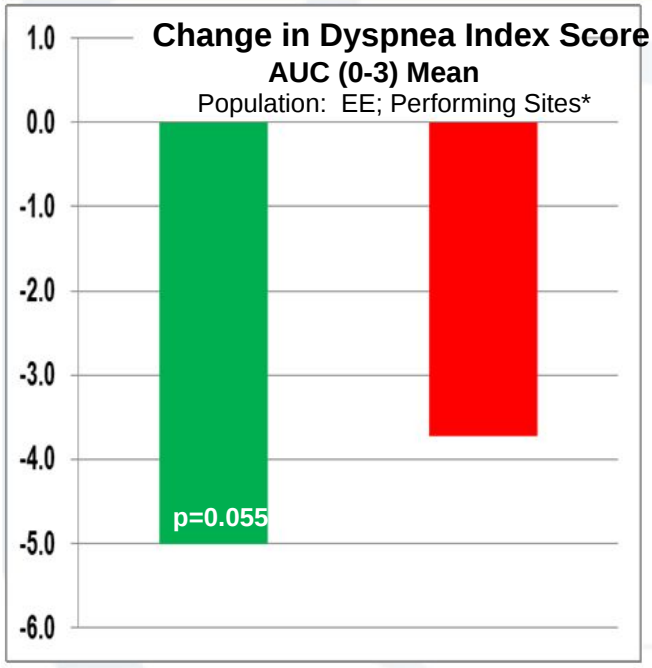
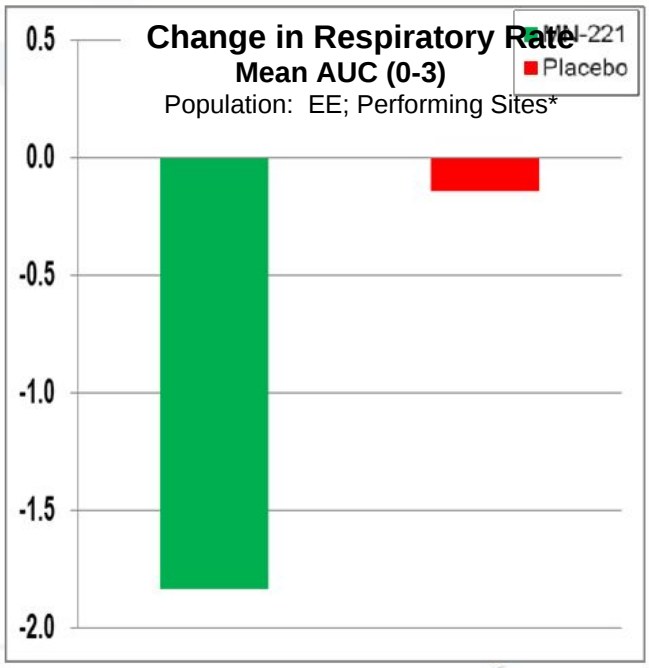
MN-221-CL-007: Phase 2 Trial

Improvements in Clinical Symptoms





EE = Efficacy Evaluable Population; Performing Sites analysis includes patients from sites completing more than 2 patients during the trial and for which all efficacy measurements were available.

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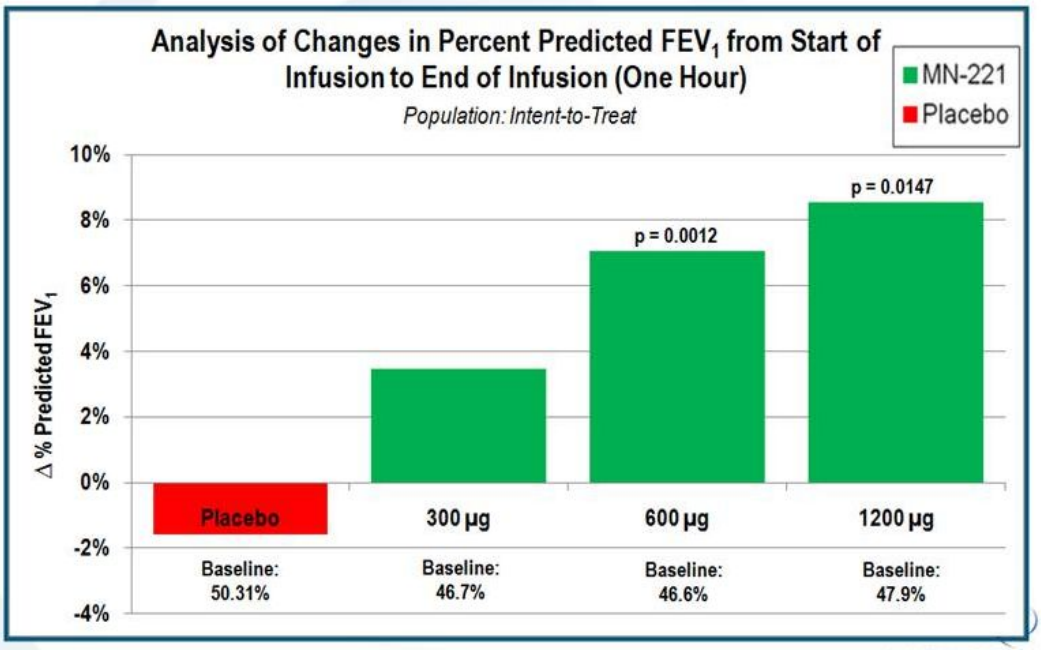
MN-221 Clinical Results
Improved Lung Function at Different Dosing Levels: COPD Patients

CL-010: Stable Moderate/Severe COPD Patients



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MN-221 Safety Review

- MediciNova has preclinical data and clinical data which demonstrates the safety of MN-221.
- In summary, we have not seen clinically significant safety concerns with MN-221 and it has been tested in over 400 subjects to date.
- According to interviews of emergency room physicians, less-selective injectable beta agonists such as epinephrine and terbutaline are not commonly used to treat acute asthma. The main reason they are not used more often is due to safety concerns, particularly cardiovascular side effects.

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Human β-Adrenergic Receptor Selectivity

Test Drug	$\beta_1 IC_{50}$ (M)	$\beta_2 IC_{50}$ (M)	β_2-Adrenoceptor Selectivi (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**

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MN-221: CHEST Posters (Nov. 2010)*

- **MN-221-CL-004:** *Evaluation of MN-221 (bedoradrine), a Novel, Highly Selective Beta2-Adrenergic Receptor Agonist in Mild to Moderate Asthma via Intravenous Infusion (Poster #145)*
- **MN-221-CL-005:** *Comparison of Administration Rates of MN-221 (bedoradrine), a Novel, Highly Selective Beta2 Receptor Agonist in Patients with Stable Moderate to Severe Asthma (Poster #143)*
- **MN-221-CL-006:** *Reduced Hospital Admission and Improved Pulmonary Function Following Intravenous MN-221 (bedoradrine), a Novel Highly Selective Beta2-Adrenergic Receptor Agonist, Adjunctive to Standard of Care in Severe Acute Exacerbation of Asthma (Poster #144)*
- **Pharmacokinetic (PK) and Pharmacodynamic (PD):** *Modeling and Simulation Support the Novelty of MN-221, a Highly-Selective Beta2-Adrenergic Agonist for Treatment of Acute Asthma (Poster #146)*
- **MN-221-FY08-065:** *Cardiovascular Effects of i.v. MN-221 (bedoradrine) Administered with Nebulized Albuterol in Dogs (Poster #147)*
- **Pharmacokinetics and Pharmacodynamics of MN-221,** *a Novel Highly-Selective Beta2-Adrenergic Agonist for Treatment of Acute Chronic Obstructive Pulmonary Disease (Poster #685)*
- **MN-221-CL-010:** *Intravenous MN-221, a Novel, Highly Selective Beta2 Adrenergic Receptor Agonist, Improves Lung Function in Stable Moderate to Severe Chronic Obstructive Pulmonary Disease (COPD) Patients (Poster #686)*

**Posters available on MediciNova website at www.medicinova.com*

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Ibudilast (MN-166):

Data from Completed Trials

- ***Multiple Sclerosis Program***
- ***Neuropathic Pain Program***
- ***Drug Abuse/Addiction Program***
- ***Safety Review***

Multiple Sclerosis Clinical Study:
MN-166-CL-001

Placebo-controlled, Randomized, Double-blind Phase II Study:

- Year 1 Placebo, 30 mg/day, 60mg/day
- Year 2 30 mg/day, 60mg/day
- 297 patients (~100 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;
- One MRI scan taken two weeks prior to treatment start using a standardized MRI protocol with at least one Gd-enhancing lesion;
- An Expanded Disability Status Scale (EDSS) score of 5.5 or less at the screening and baseline visits.

Safety Profile:

- 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
- Adverse effects reported more frequently in MN-166-treated than placebo-treated subjects: GI effects & depression

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MN-166-CL-001 Study Results

Indicative of Potential Neuroprotective Effect:

- Reduced brain volume loss — ***P-Value: 0.035***
- Reduced conversion of acute lesions to persistent black holes — ***P-Value: 0.004***
- Sustained disability progression was significantly less likely (~50%) — ***P-Value: 0.026***

Acute Clinical Benefit:

- Prolong time to relapse (by 127 days.) — ***P-Value: 0.04***
- Annualized relapse rate — ***P-Value: 0.08***

Protocol-Defined Primary Endpoint (Surrogate Endpoint):

- No significant reduction in the cumulative number of active (gadolinium-enhancing (T1) and non-enhancing new/enlarging (T2)) lesions on cranial MRI scans over 12 months of treatment was observed
- Positive trends were observed in volume of gadolinium-enhancing (T1) lesions — ***P-Value: 0.09***

Note: P-values listed on this slide compare placebo group to 60mg/day group of MN-166

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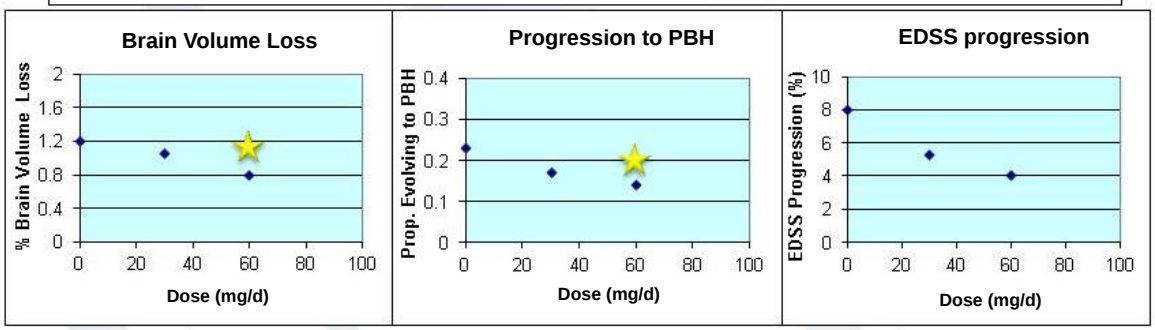
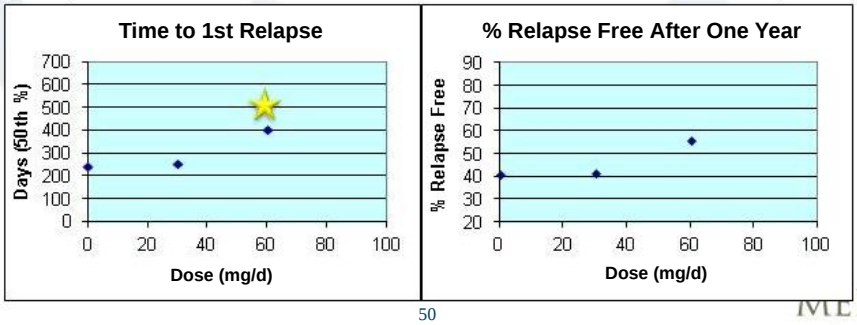
MN-166-CL-001:
Efficacy Review (One Year)

Endpoints Indicative of Disease Modifying Effect (Chronic aspects of MS):



Endpoints Relating to Acute Clinical Benefit:



★ : ***Statistically significant***

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Secondary Progressive MS:
Subset Analysis

	Treatment Group (patient n)				
	Placebo	30 mg/day Low Dose Group		60 mg/day High Dose Group	
Subset of MS Patients:	% Brain Volume Change	% Brain Volume Change	Magnitude of Effect	% Brain Volume Change	Magnitude of Effect
RRMS	-1.2 (81)	-1.1 (69)	8% less	-0.8 (75)	33% less
SPMS	-1.0 (3)	-0.7 (4)	30% less	-0.4 (2)	60% less

Next Steps for Progressive MS:

Two-year Phase 2 in Progressive MS- month 12 data. Potential first-in-class, once- or twice-daily oral well-tolerated drugs with established endpoints. Draft protocols, costs, and trial operations completed.

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Diabetic Peripheral Neuropathic Pain Study: AV411-010

Design: Two-center (Australian), Phase 1b/2a, randomized, double-blind, placebo-controlled, parallel-group study.

Subjects:

- Patients, aged 18 to ≤75 years, with painful diabetic peripheral neuropathy (DPN) or complex regional pain syndrome (CRPS) of ≥6 months duration and screening VAS score ≥4 cm on a 10 cm scale
- 29 subjects: 19 active, 10 placebo

Dosing:

- 20 mg BID (n=4), 20 mg TID (n=4), 40 mg BID (n=11)
- AV411 (ibudilast) *added to* patient's standard medication regimen for DM and *pain*

Study objectives:

- Establish safety/tolerability & PK in intended patient population
- Explore potential efficacy endpoints

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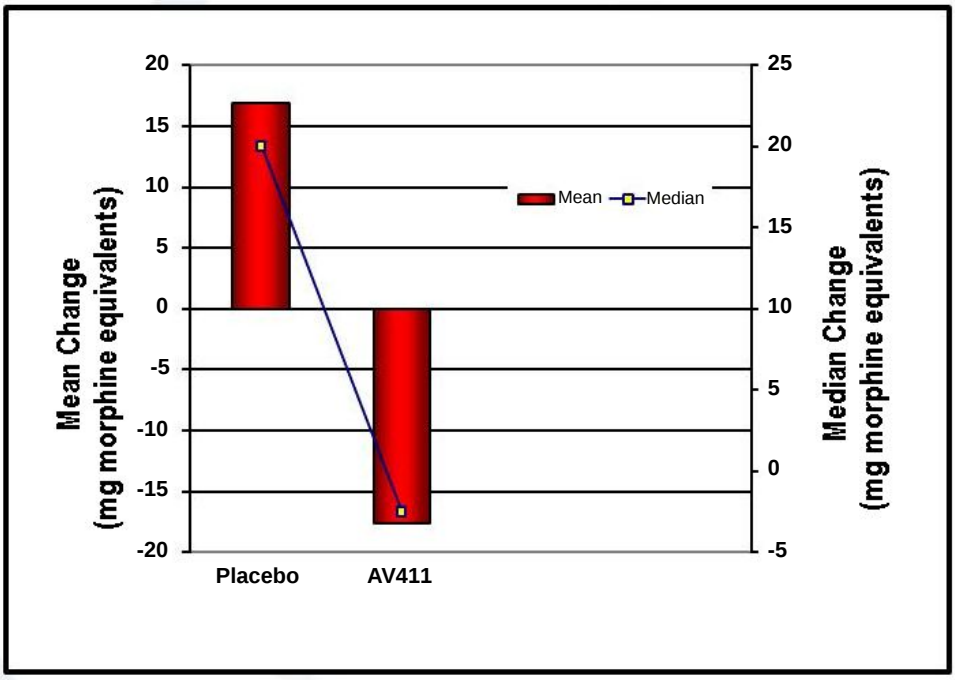
Reduction Observed in Opioid Usage



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Greater % of "Responders" Above Ibudilast Plasma Thresholds

Plasma Ibudilast Parameter		VAS 'Responder'
$AUC_{0\text{-}24h}$	> 1000 ng*hr/mL	60%
	< 1000 ng*hr/mL	25%
C_{max}	> 60 ng/mL	64%
	< 60 ng/mL	14%
C_{min}	> 27 ng/mL	55%
	< 27 ng/mL	29%

Next Steps for Neuropathic Pain:

Twelve week Phase 2 DPN trial. Potential first-in-class, once- or twice-daily oral well-tolerated drug with established endpoints. Draft protocols, costs and trial operations completed.

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Investigator-Led Development

- Recent validation of CNS action in opioid withdrawal & analgesia
- Ongoing Methamphetamine interaction Phase 1b
- Opioid self-administration Phase 2a initiating
- Ongoing Phase 2a Medication Overuse Headache Pain trial
  - Randomized, double-blind, placebo-controlled, investigator-initiated (Dr. Pail Rolan at Univ. of Adelaide, Australia; reduced headache index, acute medication (codeine) use and headache impact on Quality of Life (QOL); 8-week trial + follow-up; n = 20 patients each at placebo vs. 80 mg/day of MN-166
- Acquired rights to treatment of post-traumatic brain injury (TBI)
  - Led by the research of Daniel Barth, Ph.D., Professor of Neuroscience and Psychology at CU-Boulder, ibudilast demonstrated significant efficacy in a model of post-TBI anxiety, one of the most common disorders caused by TBI.

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Ibudilast (MN-166):
Neurological Indications and Translational Record

Indication	Preclinical Validation	Clinical Validation	Comment
MS	+ (EAE)	+* MN-166-Cl-001	Progressive MS Phase 2b indicated
Neuropathic Pain	+ (multiple models)	+ AV411-010	Phase 2b enabled
Opioid Dependence (and Tolerance)	+ (multiple models)	+* AV411-OWA	(SOWS, Miosis)
Enhanced Opioid Analgesia	+ (2 rat models)	+* AV411-OWA	(McGill PQ)
Methamphetamine Relapse	+ (rat models)	in progress	
Traumatic Brain Injury	+ (rat models)	TBD	

* = p < 0.05, dose-related & certain endpoints

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Ibudilast - References

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