MediciNova Announces New Data regarding MN-166 (ibudilast) in Uveal Melanoma Presented at the CURE OM Global Science Meeting

November 10, 2021

LA JOLLA, Calif., Nov. 10, 2021 (GLOBE NEWSWIRE) -- MediciNova, Inc., a biopharmaceutical company traded on the NASDAQ Global Market (NASDAQ:MNOV) and the JASDAQ Market of the Tokyo Stock Exchange (Code Number: 4875), today announced that Grazia Ambrosini, PhD, an associate research scientist at Columbia University Vagelos College of Physicians and Surgeons, presented data regarding MN-166 (ibudilast) in a uveal melanoma (UM) model study at the 10th Annual CURE OM Global Science Meeting held online as a part of the Society for Melanoma Research International Congress on October 28, 2021.

This study was a collaborative effort between MediciNova and Dr. Ambrosini, Richard D. Carvajal, MD, associate professor of medicine at Columbia Vagelos College of Physicians and Surgeons and co-director of the Precision Oncology and Systems Biology research program at the Herbert Irving Comprehensive Cancer Center (HICCC), and Gary Schwartz, MD, professor of oncology at Vagelos College of Physicians and Surgeons, Division Chief of Hematology/Oncology at Columbia University Irving Medical Center, and Deputy Director at the HICCC.

The highlights of Dr. Ambrosini's presentation are follows:

- The role of UM exosomes in the crosstalk with hepatic cells was investigated in co-culture migration assays and in a mouse metastatic model.
- UM exosomes induce activation of cell signaling pathways and the release of cytokines and growth factors from hepatocytes. The exosome-stimulated hepatocyte conditioned media (HCM) could in turn induce migration of UM cells.
- Macrophage migration inhibitory factor (MIF) was the major player in these mechanisms and its blockade inhibited cell migration in co-cultures with exosome-stimulated hepatocytes and prevented the development of metastases in vivo.
- MN-166 reduced migrated UM cell count in UM-exosome-stimulated HCM ($p<0.001$).
- Quantified bioluminescence intensity for each animal in the abdominal region was significantly reduced by MN-166 treatment in the UM mouse model ($p<0.05$).
- MN-166 prevented metastasis in a mouse UM metastasis model.

Dr. Carvajal commented, "We are excited about the preclinical data generated with the MIF inhibitor MN-166 in this uveal melanoma model study. Uveal melanoma is the most common primary intraocular malignancy and nearly half of patients ultimately will develop metastasis. Metastases are most frequently localized to the liver and associated with a poor prognosis. Currently there are no effective preventive treatments for uveal melanoma. Previously, our group identified MIF as a critical mediator of metastatic spread. In our new study, MN-166 treatment prevented remote metastasis in the orthotopic uveal melanoma model."

Kazuko Matsuda, M.D. Ph.D, MPH., Chief Medical Officer, MediciNova, Inc., commented, "In clinical practice, cancer metastasis is often the major driver of cancer-related death rather than the primary cancer. We are very excited about MN-166's potential to prevent metastasis in uveal melanoma. We previously reported that MN-166 reduced levels of immune suppressive myeloid-derived suppressor cells (MDSCs) and enhanced CD8 T cell activity in the tumor microenvironment. The new data from this UM model study suggested that treatment with MN-166 can potentially address significant unmet medical needs for novel and effective therapies for patients with UM at risk of metastasis. We are looking forward to moving to a clinical trial and we are optimistic that this project could help patients with uveal melanoma and other malignancies."

About MN-166 (ibudilast)

MN-166 (ibudilast) is a small molecule compound that inhibits phosphodiesterase type-4 (PDE4) and inflammatory cytokines, including macrophage migration inhibitory factor (MIF). It is in late-stage clinical development for the treatment of neurodegenerative diseases including ALS, progressive MS (multiple sclerosis), and DCM (degenerative cervical myelopathy); glioblastoma, CIPN (chemotherapy-induced peripheral neuropathy), and substance use disorder. In addition, MN-166 (ibudilast) is being evaluated in patients at risk for developing acute respiratory distress syndrome (ARDS).

About MediciNova

MediciNova, Inc. is a clinical-stage biopharmaceutical company developing a broad late-stage pipeline of novel small molecule therapies for inflammatory, fibrotic, and neurodegenerative diseases. Based on two compounds, MN-166 (ibudilast) and MN-001 (tipelukast), with multiple mechanisms of action and strong safety profiles, MediciNova has 11 programs in clinical development. MediciNova's lead asset, MN-166 (ibudilast), is currently in Phase 3 for amyotrophic lateral sclerosis (ALS) and degenerative cervical myelopathy (DCM) and is Phase 3-ready for progressive multiple sclerosis (MS). MN-166 (ibudilast) is also being evaluated in Phase 2 trials in glioblastoma, patients at risk of developing acute respiratory distress syndrome (ARDS), and substance dependence. MN-001 (tipelukast) was evaluated in a Phase 2 trial in idiopathic pulmonary fibrosis (IPF) and is in preparation for a second Phase 2 trial in nonalcoholic steatohepatitis (NASH). MediciNova has a strong track record of securing investigator-sponsored clinical trials funded through government grants.

Statements in this press release that are not historical in nature constitute forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, without limitation, statements regarding the future

development and efficacy of MN-166, MN-001, MN-221, and MN-029. 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," "considering," "planning" or similar expressions. These forward-looking statements involve a number of risks and uncertainties that may cause actual results or events to differ materially from those expressed or implied by such forward-looking statements. Factors that may cause actual results or events to differ materially from those expressed or implied by these forward-looking statements include, but are not limited to, risks of obtaining future partner or grant funding for development of MN-166, MN-001, MN-221, and MN-029 and risks of raising sufficient capital when needed to fund MediciNova's operations and contribution to clinical development, risks and uncertainties inherent in clinical trials, including the potential cost, expected timing and risks associated with clinical trials designed to meet FDA guidance and the viability of further development considering these factors, product development and commercialization risks, 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, risks associated with the reliance on third parties to sponsor and fund clinical trials, risks regarding intellectual property rights in product candidates and the ability to defend and enforce such intellectual property rights, 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 of expected filings with the regulatory authorities, MediciNova's collaborations with third parties, the availability of funds to complete product development plans and MediciNova's ability to obtain third party funding for programs and raise sufficient capital when needed, and the other risks and uncertainties described in MediciNova's filings with the Securities and Exchange Commission, including its annual report on Form 10-K for the year ended December 31, 2020 and its subsequent periodic reports on Form 10-Q and current reports on Form 8-K. Undue reliance should not be placed on these forward-looking statements, which speak only as of the date hereof. MediciNova disclaims any intent or obligation to revise or update these forward-looking statements.

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