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Matinas BioPharma Researchers Among Rutgers University Recipients of 2016 Edison Patent Awards

Raphael Mannino, Ph.D. and Ruying Lu to be honored with Edison Patent Award in the drug delivery technology category for cochleate technology

BEDMINSTER, N.J., Nov. 03, 2016 (GLOBE NEWSWIRE) -- Matinas BioPharma Holdings, Inc. (OTCQB:MTNB), a clinical-stage biopharmaceutical company focused on identifying and developing safe and effective broad spectrum therapeutics for the treatment of serious and life-threatening infections, announced today that Raphael Mannino, Ph.D., Chief Scientific Officer of Matinas, and co-inventor Ruying Lu will receive the 2016 Edison Patent Award from the Research & Development Council of New Jersey in the drug delivery technology category for the cochleate technology they developed in collaboration with Rutgers University, The State University of New Jersey. The award will be presented to Dr. Mannino and Ms. Lu at the council's annual awards event being held this evening.

Dr. Mannino and Ms. Lu, former researchers in the Department of Pathology and Laboratory Medicine at the Rutgers New Jersey Medical School, are the co-inventors of Matinas' proprietary, disruptive lipid-crystal nano-particle cochleate technology. Cochleate technology represents a broad based, disruptive drug formulation and delivery technology utilizing a unique lipid-crystal nano-particle to nano-encapsulate existing drugs and other biologically active compounds, making them safer, more tolerable, less toxic and orally bioavailable. Matinas is currently utilizing the cochleate technology to develop safe and effective broad spectrum therapeutics for the treatment of serious and life-threatening infections.

Dr. Mannino commented, "We are incredibly proud to receive recognition for our proprietary cochleate technology platform and are honored to have been given the Edison Patent Award from the Research and Development Council of New Jersey."

Matinas BioPharma's lead anti-infective product in development,MAT2203 is an orally-administered, encochleated formulation of amphotericin B (a broad spectrum fungicidal agent). Utilizing cochleate technology, MAT2203 has the ability to provide amphotericin B via its proprietary and novel oral formulation which may offer a new and promising alternative for patients and doctors. Patient dosing is currently underway for the Phase 2a NIH/NIAID-funded clinical study with MAT2203 in patients with refractory mucocutaneous candidiasis. MAT2203 is also being explored for treatment of additional anti-fungal indications and may have the potential for Orphan Drug Designation in certain of these indications. The Company expects to report topline data from its Phase 2a study of MAT2203 in the first half of 2017.

MAT2501, is the Company's orally-administered, encochleated formulation of the broad spectrum IV-only aminoglycoside antibiotic agent amikacin, which utilizes the Company's proprietary, lipid-crystal, nanoparticle delivery technology. MAT2501 is specifically designed to provide targeted delivery of the potent antibiotic amikacin while providing a significantly improved safety and tolerability profile. Matinas received FDA clearance to initiate a Phase 1 clinical study of MAT2501 for the treatment of non-tuberculous mycobacterium infections. The FDA has designated MAT2501 as a QIDP and an Orphan Drug for the treatment of NTM infections. The Company intends to initially develop MAT2501 for the treatment of NTM infections and will also explore the development of MAT2501 for the treatment of a variety of multi-drug resistant, gram negative bacterial infections. If approved, Matinas believes MAT2501 would become the first orally bioavailable aminoglycoside and represent a significant improvement over existing therapies from a treatment and health economic perspective.

About the Research & Development Council of New Jersey

For more than half a century, the Research & Development Council of New Jersey has been dedicated to cultivating an environment supportive of the advancement of research and development in New Jersey. Established in 1962, the Council was created to serve as a unified voice for the three R&D sectors — industry, academia and government — to work with the State to create an environment R&D could thrive in. The R&D Council is a nonprofit 501(c)(3) organization whose membership includes representatives from academia, government and industry, including several Fortune 500 companies. More information can be found at the R&D Council's website: www.rdnj.org.

About Rutgers

Rutgers, The State University of New Jersey, is a leading national research university. Established in 1766 and celebrating a milestone 250th anniversary in 2016, it is the eighth oldest higher education institution in the nation. More than 69,000 students and 22,000 faculty and staff learn, work and serve the public at sites across New Jersey and around the world. Rutgers–New Brunswick is the state's only public institution in the prestigious Association of American Universities. Rutgers belongs to the Big Ten Academic Alliance, which comprises 14 world-class research universities. It is among the top 20 public U.S. universities for total R&D funding, and over the past two years has seen a 22 percent increase in research grants and sponsored programs, up to $637.9 million in FY2016. The Office of Research and Economic Development is a central point for industry to access Rutgers and offers a website for industry: businessportal.rutgers.edu.

About Matinas BioPharma

Matinas BioPharma is a clinical-stage biopharmaceutical company focused on identifying and developing safe and effective broad spectrum therapeutics for the treatment of serious and life-threatening infections. The Company's proprietary, disruptive technology utilizes lipid-crystal nano-particle cochleates to nano-encapsulate existing drugs, making them safer, more tolerable, less toxic and orally bioavailable. The Company's lead drug candidate is MAT2203, an orally-administered, encochleated formulation of amphotericin B (a broad spectrum fungicidal agent). The Company has an open Investigational New Drug (IND) application for MAT2501, which is an orally-administered, encochleated formulation of amikacin (a broad spectrum aminoglycoside antibiotic agent) for acute bacterial infections,

including non-tuberculous mycobacterium (NTM) and multi-drug resistant gram negative bacterial infections.

The Company's lead anti-infective product candidates, MAT2203 and MAT2501, position Matinas BioPharma to become a leader in the safe and effective delivery of anti-infective therapies utilizing its proprietary lipid-crystal nano-particle cochleate formulation technology. For more information, please visit www.matinasbiopharma.com and connect with the Company on Twitter, LinkedIn, Facebook, and Google+.

Forward Looking Statements: *This release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including those relating to the Company's strategic focus and the future development of its product candidates, including MAT2203 and MAT2501, the anticipated timing of regulatory submissions, the anticipated timing of clinical studies, the Company's ability to identify and pursue development and partnership opportunities for its products or platform delivery technology on favorable terms, if at all, and the ability to obtain required regulatory approval and other statements that are predictive in nature, that depend upon or refer to future events or conditions. All statements other than statements of historical fact are statements that could be forward-looking statements. Forward-looking statements include words such as "expects," "anticipates," "intends," "plans," "could," "believes," "estimates" and similar expressions. These statements involve known and unknown risks, uncertainties and other factors which may cause actual results to be materially different from any future results expressed or implied by the forward-looking statements. Forward-looking statements are subject to a number of risks and uncertainties, including, but not limited to, our ability to obtain additional capital to meet our liquidity needs on acceptable terms, or at all, including the additional capital which will be necessary to complete the clinical trials of our product candidates; our ability to successfully complete research and further development and commercialization of our product candidates; the uncertainties inherent in clinical testing; the timing, cost and uncertainty of obtaining regulatory approvals; our ability to maintain and derive benefit from the Qualified Infectious Disease Product (QIDP), Orphan and/or Fast Track designations for MAT2203 and MAT2501, which does not change the standards for regulatory approval or guarantee regulatory approval on an expedited basis, or at all; our ability to protect the Company's intellectual property; the loss of any executive officers or key personnel or consultants; competition; changes in the regulatory landscape or the imposition of regulations that affect the Company's products; and the other factors listed under "Risk Factors" in our filings with the SEC, including Forms 10-K, 10-Q and 8-K. Investors are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date of this release. Except as may be required by law, the Company does not undertake any obligation to release publicly any revisions to such forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. Matinas BioPharma's product candidates are all in a development stage and are not available for sale or use.*

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Source: Matinas BioPharma Holdings, Inc.