June 6, 2018

Matinas BioPharma to Present Preclinical Data at ASM Microbe 2018 Further Demonstrating the Broad Utility of its LNC Platform

Data demonstrate safe, effective oral delivery of antimicrobial drugs utilizing LNC technology

BEDMINSTER, N.J., June 06, 2018 (GLOBE NEWSWIRE) -- Matinas BioPharma Holdings, Inc. (NYSE AMER:MTNB), a clinical-stage biopharmaceutical company focused on enabling the delivery of life-changing medicines using its proprietary lipid nano-crystal (LNC) platform technology, today announced it will present data in two poster sessions at The American Society for Microbiology's ASM Microbe 2018 scientific meeting being held June 7–11 in Atlanta, GA.

"We continue to explore the broad capabilities of our LNC technology platform as we advance our lead product candidate, MAT2203, towards a potential Phase 2 pivotal trial for prevention of invasive fungal infections (IFIs) in patients with acute lymphoblastic leukemia (ALL). The data being presented at ASM Microbe are the latest demonstration that our LNC platform technology can effectively and safely deliver oral formulations of antimicrobial drugs in preclinical models of immunocompromised animals, which are models similar to the immunosuppression experienced by patients being treated for ALL," commented Raphael Mannino, Ph.D., Chief Scientific Officer of Matinas.

The ASM Microbe 2018 poster presentation details are as follows:

Dr. Mannino will present the poster titled, "*Efficacy of Oral Cochleate-Amphotericin B for the Prevention of Invasive Candidiasis In Neutropenic Mice*."

Amphotericin B remains a principal therapeutic option for deep seated mycoses, however, its application is currently limited by toxicity and administration via intravenous injection. The data outlined in this poster demonstrate the oral bioavailability, low toxicity, and significant preclinical activity of MAT2203 as an orally-administered, LNC formulation of amphotericin B (a broad spectrum fungicidal agent), in mice with disseminated candidiasis and aspergillosis.

Poster: 511
Date: Friday, June 8th
Time: 11:00 a.m. – 1:00 p.m. EDT
Location: Exhibit and Poster Hall, Building B, Halls B2-B5

Session: Antifungal Agents and Resistance: Agents to Treat Fungal Infections

Dr. Parag Kumar from the National Institutes of Health (NIH), will present the poster titled, *"A Novel Encochleated Atovaquone Formulation is Active in A Murine Model of Pneumocystis Pneumonia."*

Atovaquone for treatment of *Pneumocystis* pneumonia is limited by poor tolerability, saturable oral pharmacokinetics (PK), and therapy failure. The data outlined in this poster were collected from studies evaluating the PK, efficacy, and toxicity of a novel LNC formulation of encochleated atovaquone (CATQ) in corticosteroid-treated mice infected with P. murina.

Poster: 563
Date: Saturday, June 9th
Time: 11:00 a.m. – 1:00 p.m. EDT
Location: Exhibit and Poster Hall, Building B, Halls B2-B5

Session: Antimicrobial PK/PD & General Pharmacology: *in vivo* Studies

About Matinas BioPharma

Matinas BioPharma is a clinical-stage biopharmaceutical company focused on enabling the delivery of life-changing medicines using its LNC platform technology. The Company's proprietary, disruptive technology utilizes lipid nano-crystals which can encapsulate small molecule drugs, oligonucleotides, vaccines, peptides, proteins and other medicines potentially making them safer, more tolerable, less toxic and orally bioavailable.

The Company's lead anti-fungal product candidate, MAT2203, utilizes its proprietary lipid nano-crystal formulation technology for the safe and effective delivery of the broad-spectrum fungicidal agent, amphotericin B. Based on the positive patient clinical data reported in 2017, Matinas is preparing for a potential Phase 2 pivotal trial of MAT2203 for prevention of invasive fungal infections in patients with acute lymphoblastic leukemia.

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 anticipated capital and liquidity needs, strategic focus and the future development of its product candidates, including MAT2203, the anticipated timing of regulatory submissions, the anticipated timing of clinical studies, the anticipated timing of regulatory interactions, 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, 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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