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Patient with Candida krusei Infection in Matinas BioPharma's Oral MAT2203 Expanded Access Program Achieves Complete Clinical Resolution

BEDMINSTER, N.J., Oct. 11, 2023 (GLOBE NEWSWIRE) -- Matinas BioPharma (NYSE American: MTNB), a clinical-stage biopharmaceutical company focused on delivering groundbreaking therapies using its lipid nanocrystal (LNC) platform delivery technology, announces complete clinical resolution of a patient's recurrent hemorrhagic cystitis due to *Candida krusei (C. krusei)*, a fluconazole inherited resistant fungal pathogen, following treatment with MAT2203, Matinas' oral formulation of the potent antifungal amphotericin B. This patient was treated under Matinas' Expanded Access/Compassionate Use Program by Marisa H. Miceli, MD, Professor of Medicine, Specializing in Fungal Infections and Transplant Diseases, Division of Infectious Diseases, Internal Medicine, at the University of Michigan.

"We are thrilled with the positive clinical impact MAT2203 had on this extremely ill patient with limited treatment options," said Dr. Miceli. "This 61-year-old male with a history of diabetes, kidney disease, chronic obstructive lung disease, and coronary heart disease with heart failure had developed recurrent hemorrhagic cystitis due to *C. krusei*. In this case, neither an echinocandin nor a second-generation triazole was an option due to their inability to deliver adequate drug levels in urine. Treatment with IV-amphotericin B deoxycholate was quickly discontinued due to renal toxicity and we transitioned this patient to MAT2203, which was well-tolerated with no adverse effects. Treatment with MAT2203 led to complete resolution of his symptoms and improvement of his kidney function to baseline. Ultimately, the patient's urine culture was negative for *C. krusei* after just 14 days of treatment with MAT2203."

A total of 11 patients with no other treatment options are currently receiving or have completed treatment with MAT2203 under this program, and several additional cases are under consideration. In each instance, the patient was not responding to or was resistant to azole therapy or was unable to receive azole therapy due to drug/drug interactions. All patients who experienced serious renal toxicity while receiving IV-amphotericin B who were subsequently treated with MAT2203 saw their renal toxicity reversed and renal function return to normal.

"It's exciting to share the ongoing, consistent positive clinical impact of our broad-spectrum, fast-acting oral MAT2203, especially with a major infectious disease conference, IDWeek, kicking off today," said Theresa Matkovits, PhD, Chief Development Officer at Matinas. "We look forward to advancing MAT2203 into a Phase 3 registration trial to evaluate its potential

in patients suffering from invasive aspergillosis who have limited or no treatment options. We believe that oral, effective, and safe MAT2203, if approved, would represent a dramatic improvement to current clinical standard of care and become the treatment of choice for patients and physicians battling invasive fungal infections. We are grateful to the participants in our Expanded Access program and to their physicians for recognizing the clinical potential of MAT2203 in treating a broad spectrum of invasive fungal infections."

MAT2203 is not yet licensed or approved anywhere globally.

About MAT2203
Matinas BioPharma is developing MAT2203 as a potential oral broad-spectrum treatment for invasive deadly fungal infections. Although amphotericin B is a fungicidal agent, it is currently only available through an intravenous route of administration, which is known to be associated with a number of significant safety issues such as renal toxicity and anemia due to very high circulating levels of amphotericin B. MAT2203 has the potential to overcome the significant limitations of the currently available amphotericin B products due to its targeted oral delivery, combining comparable fungicidal activity with targeted delivery resulting in a lower risk of toxicity and potentially creating the ideal antifungal agent for the treatment of invasive fungal infections. MAT2203 was successfully evaluated in the completed Phase 2 EnACT study in cryptococcal meningitis, meeting its primary endpoint and achieving robust survival. MAT2203 will be further evaluated as an oral step-down monotherapy treatment following IV-amphotericin B in a single pivotal Phase 3 study in the treatment of aspergillosis in persons with limited treatment options who are unable to be treated with azoles for reasons related to drug-drug interactions, resistance or for whom these antifungal agents are unable to be used for other clinical reasons.

About Matinas BioPharma
Matinas BioPharma is a biopharmaceutical company focused on delivering groundbreaking therapies using its lipid nanocrystal (LNC) platform delivery technology.

Matinas' lead LNC-based therapy is MAT2203, an oral formulation of the broad-spectrum antifungal drug amphotericin B. In addition to MAT2203, preclinical and clinical data have demonstrated that this novel technology can provide solutions to many of the challenges standing in the way of achieving safe and effective intracellular delivery of both small molecules and larger, more complex molecular cargos such as RNAi, antisense oligonucleotides, and vaccines. The combination of its unique mechanism of action and flexibility with routes of administration (including oral) positions Matinas' LNC technology to potentially become a preferred next-generation orally available intracellular drug delivery platform. For more information, please visit www.matinasbiopharma.com.

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 our business activities, our strategy and plans, the future development of its product candidates, including MAT2203, the Company's ability to identify and pursue development, licensing and partnership opportunities for its products, including MAT2203, 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 continue as a going concern, 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 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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