November 13, 2019

Matinas BioPharma Reports Third Quarter 2019 Financial Results and Provides Corporate Update

– Initiated pre-screening of patients for Phase 2 ENHANCE-IT study of MAT9001 against Vascepa®. Enrollment to commence Q1 2020, with topline data expected H2 2020 –

– NIH-funded Phase 2 EnACT trial of MAT2203 in cryptococcal meningitis initiated in October –

– Management to host conference call today, Wednesday, November 13th, at 8:00 a.m. ET –

BEDMINSTER, N.J., Nov. 13, 2019 (GLOBE NEWSWIRE) -- Matinas BioPharma Holdings, Inc. (NYSE AMER: MTNB), a clinical-stage biopharmaceutical company, today announced financial results for the quarter ended September 30, 2019, and provided an update on its product pipeline.

"I am extremely pleased with the progress we made in the third quarter, positioning the Company to commence two important studies for our lead assets, MAT9001 and MAT2203," commented Jerome D. Jabbour, Chief Executive Officer of Matinas. "With respect to MAT9001, we began pre-screening patients in September for our confirmatory head to head ENHANCE-IT study vs. Vascepa, and remain on track to start dosing patients in early 2020. This is an exciting time for the omega-3 class as there are multiple upcoming catalysts that could help validate the blockbuster potential of prescription-only omega-3 therapy. We look forward to reporting data from the ENHANCE-IT trial in the fourth quarter of 2020, and continue to believe that MAT9001 has the potential to become the best-in-class prescription-only omega-3 product."

"Importantly, we have also commenced dosing in the EnACT study of MAT2203, our oral formulation of amphotericin B, applying our lipid nano-crystal (LNC) platform delivery technology. Just recently the US Food and Drug Administration (FDA) granted MAT2203 orphan drug designation for the treatment of cryptococcosis. This designation, along with the previously granted Qualified Infectious Disease Product Designation (QIDP) with Fast Track status, positions MAT2203 for up to 12 years of exclusivity, if approved. We believe MAT2203, beginning with the EnACT trial, has the potential to provide a much-needed solution for patients and doctors in the battle against invasive fungal infections. We look forward to providing updates on this study throughout 2020," added Mr. Jabbour.

MAT9001 Program Update *(next generation, prescription-only omega-3 fatty acid-based composition under development for treatment of cardiovascular or metabolic conditions, including hypertriglyceridemia)*

- Commenced pre-screening of patients for head-to-head comparative study of MAT9001 and Vascepa®, and on track to initiate enrollment in the first quarter of 2020. This study will evaluate pharmacodynamic (PD) markers for MAT9001 and Vascepa in a 28-day crossover study in patients with elevated triglycerides (150 – 499 mg/dL). It follows a previous study showing that, compared to Vascepa, MAT9001 provided significantly greater reductions in PD markers known to be associated with increased risk of cardiovascular disease, including triglycerides, Total cholesterol, VLDL-C, non-HDL-C, ApoC3, and PCSK9, without any meaningful increase in LDL cholesterol. The objective of this second study is to further validate the enhanced bioavailability and greater potency of MAT9001 relative to Vascepa in order to best position the drug for commercial success. The Company expects to announce data from the study in the fourth quarter of 2020.
- On track to commence a comparative clinical bridging bioavailability study by the end of 2019 to support 505(b)(2) registration pathway, with expected completion in the first half of 2020.

MAT2203 and Lipid Nano-Crystal (LNC) Technology Platform Update *(intracellular delivery of potentially life-saving medicines)*

- Dosing initiated in Phase 2 EnACT (Encochleated Oral Amphotericin for Cryptococcal Meningitis Trial) study of MAT2203 for the treatment of HIV-infected patients with cryptococcal meningitis in October 2019. This open-label, sequential cohort study, financially supported by the National Institutes of Health (NIH), will utilize the Company's LNC drug delivery technology to orally deliver the traditionally IV-only fungicidal drug, amphotericin B. Updates on EnACT will be provided over the course of 2020.
- FDA granted MAT2203 orphan drug designation for the treatment of cryptococcosis in October 2019. As previously reported, the FDA has designated MAT2203 as a QIDP with Fast Track status for four indications, specifically, the prevention of invasive fungal infections due to immunosuppressive therapy, and the treatment of invasive candidiasis, invasive aspergillus and cryptococcal meningitis.

Third Quarter 2019 Financial Results

For the third quarter of 2019, the Company reported a net loss attributable to common shareholders of $4.6 million, or a net loss per share of $0.03 (basic and diluted), compared to a net loss attributable to common shareholders of $3.3 million, or a net loss per share of $0.03 (basic and diluted) for the same period in 2018.

Research and development (R&D) activities for the third quarter of 2019 were $2.7 million, compared to $1.4 million for the same period in 2018. The increase in R&D was due primarily to higher manufacturing process development, clinical development and overhead costs, specifically around the development of MAT9001.

General and administrative (G&A) expenses for the third quarter of 2019 were $1.9 million, compared to $1.6 million in the same period in 2018. The increase in G&A was due primarily to increased employee compensation expense.

Cash and cash equivalents at September 30, 2019 were approximately $32.7 million, compared to $12.4 million at December 31, 2018. This increase includes net proceeds of

$30.1 million from the Company's public offering of its common stock completed in March 2019. Based on Management's current projections the Company believes that cash on hand is sufficient to fund operations into the first quarter of 2021.

*VASCEPA® is a registered trademark of the Amarin group of companies.

Conference Call and Webcast Details

The Company will host a live conference call and webcast to discuss these results on Wednesday, November 13, 2019 at 8:00 a.m. ET.

To participate in the call, please dial (877) 407-5976 (domestic) or (412) 902-0031 (international). The live webcast will be available on the Events page of the Investors section of the Company's website (www.matinasbiopharma.com) and archived for 60 days.

About Matinas BioPharma

Matinas BioPharma is a clinical-stage biopharmaceutical company focused on development of its lead product candidate, MAT9001, for the treatment of cardiovascular and metabolic conditions. MAT9001 is a prescription-only omega-3 fatty acid-based composition, comprised primarily of EPA and DPA, under development for hypertriglyceridemia, that was specifically designed to overcome the shortcomings seen from other agents in the omega-3 class. Company leadership has a deep history and knowledge of cardiovascular drug development and is supported by a world-class team of scientific advisors.

In addition, the Company is developing MAT2203, an oral, encochleated formulation of amphotericin B, to treat serious invasive fungal infections. The drug is based on Matinas' proprietary lipid nano-crystal (LNC) platform technology which can help solve complex challenges relating to the safe and effective delivery of potent medicines, potentially making them more targeted, less toxic and orally bioavailable.

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 MAT9001 and 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 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.

Matinas BioPharma Holdings Inc.
Condensed Consolidated Balance Sheets

	September 30, 2019 (Unaudited)	December 31, 2018 (Audited)
ASSETS:		
Current assets:		
Cash and cash equivalents	$ 32,664,782	$ 12,446,838
Restricted cash	200,000	100,000
Prepaid expenses	1,386,130	538,646
Total current assets	34,250,912	13,085,484
Non-current assets:		
Leasehold improvements and equipment - net	1,806,304	2,042,893
Operating lease right-of-use assets - net	3,877,069	-
Finance lease right-of-use assets - net	141,972	-
In-process research and development	3,017,377	3,017,377
Goodwill	1,336,488	1,336,488
Restricted cash - security deposits	386,000	461,000
Total non-current assets	10,565,210	6,857,758
Total assets	$ 44,816,122	$ 19,943,242
LIABILITIES AND STOCKHOLDERS' EQUITY:		
Current liabilities:		
Accounts payable	$ 685,802	$ 295,652
Note payable	-	199,842
Accrued expenses	1,462,767	1,086,868
Stock dividends payable	-	1,174,286

Operating lease liabilities - current	407,026	-
Financing lease liabilities - current	66,743	83,245
Total current liabilities	2,622,338	2,839,893
Non-current liabilities:		
Deferred tax liability	341,265	341,265
Operating lease liabilities - net of current portion	3,809,442	-
Financing lease liabilities - net of current portion	62,331	107,656
Deferred rent liability	-	512,704
Total non-current liabilities	4,213,038	961,625
Total liabilities	6,835,376	3,801,518
Stockholders' equity:		
Series A Convertible preferred stock, stated value $5.00 per share, 1,600,000 shares authorized as of September 30, 2019 and December 31, 2018; 0 and 1,467,858 shares issued and outstanding as of September 30, 2019 and December 31, 2018, respectively (liquidation preference - $0 at September 30, 2019)	-	5,583,686
Series B Convertible preferred stock, stated value $1,000 per share, 8,000 shares authorized as of September 30, 2019 and December 31, 2018; 4,620 and 4,819 shares issued and outstanding as of September 30, 2019 and December 31, 2018; (liquidation preference - $4,620,000 at September 30, 2019)	4,023,251	4,196,547
Common stock par value $0.0001 per share, 250,000,000 shares authorized at September 30, 2019 and December 31, 2018; 162,720,274 and 113,287,670 issued and outstanding as of September 30, 2019 and December 31, 2018, respectively	16,271	11,329
Additional paid-in capital	112,745,948	72,294,921
Accumulated deficit	(78,804,724)	(65,944,759)
Total stockholders' equity	37,980,746	16,141,724
Total liabilities and stockholders' equity	$ 44,816,122	$ 19,943,242

Matinas BioPharma Holdings, Inc.
Condensed Consolidated Statements of Operations
Unaudited

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenue:				
Contract research revenue	$ -	-	$ 89,812	119,750
Costs and expenses:				
Research and development	2,671,365	1,379,525	7,814,842	5,095,110
General and administrative	1,889,892	1,574,712	5,460,023	5,504,559
Total costs and expenses	4,561,257	2,954,237	13,274,865	10,599,669
Loss from operations	(4,561,257)	(2,954,237)	(13,185,053)	(10,479,919)
Sale of New Jersey net operating loss	-	-	1,007,082	-
Other income, net	156,872	18,660	378,151	23,304
Net loss	$ (4,404,385)	(2,935,577)	$ (11,799,820)	(10,456,615)
Preferred stock series A accumulated dividends	(45,041)	(146,786)	(338,613)	(440,857)
Preferred stock series B accumulated dividends	(115,500)	(175,075)	(349,500)	(196,924)
Net loss attributable to common shareholders	$ (4,564,926)	(3,257,438)	$ (12,487,933)	(11,094,396)
Net loss available for common shareholders per share - basic and diluted	$ (0.03)	(0.03)	$ (0.09)	(0.12)
Weighted average common shares outstanding - basic and diluted	156,889,602	94,697,049	139,265,178	94,098,372

Investor and Media Contacts

Peter Vozzo
Westwicke
443-213-0505
peter.vozzo@westwicke.com

Ian Cooney
Director – Investor Relations & Corporate Development
Matinas Biopharma, Inc.
(415) 722-4563
icooney@matinasbiopharma.com

Source: Matinas BioPharma Holdings, Inc.