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BioNTech and Matinas BioPharma Announce Exclusive Research Collaboration to Evaluate Novel Delivery Technology for mRNA-based Vaccines

- *Exclusive collaboration combines BioNTech's mRNA vaccine development expertise and Matinas' Lipid Nanocrystal (LNC) Delivery Platform Technology to advance novel formulations for mRNA vaccines, including a potential formulation for oral vaccines*
- *Matinas will receive an upfront exclusive access fee from BioNTech, as well as additional research funding*
- *BioNTech and Matinas have commenced license agreement discussions for Matinas' LNC Delivery Platform Technology*

MAINZ, Germany and BEDMINSTER, N.J., April 11, 2022 (GLOBE NEWSWIRE) -- [BioNTech SE](#) (Nasdaq: BNTX, "BioNTech") and [Matinas BioPharma](#) (NYSE AMER: MTNB, "Matinas"), a clinical-stage biopharmaceutical company focused on redefining the intracellular delivery of nucleic acids and small molecules with its lipid nanocrystal (LNC) platform technology, announced today that they have entered into an exclusive research collaboration to evaluate the combination of mRNA formats and Matinas' proprietary LNC platform technology. The parties will closely collaborate on formulation, optimization, and *in vitro* testing.

"We pioneered the treatment of the first patient in history with nano-sized lipid-encapsulated mRNA back in 2015, after years of extensive research. Accomplishing strong immune responses with low doses are crucial in the development of well-tolerated and highly effective vaccines. This can be achieved with the right technology that enables targeted vaccine delivery," said **Ugur Sahin, M.D., Chief Executive Officer and Co-Founder of BioNTech**. "Matinas' LNC platform demonstrates encouraging capabilities for intracellular delivery, including the opportunity for oral delivery. We are excited to collaborate with this extraordinary team of experts."

"This collaboration with BioNTech is an important validation from a leading global biotech company with demonstrated expertise in the design, formulation, and delivery of mRNA," said **Jerome D. Jabbour, Chief Executive Officer and Co-Founder of Matinas**. "We are thrilled to partner with this world-class organization to further demonstrate the capabilities of our LNC platform, and potentially provide an opportunity for the oral administration of vaccines or other treatments. Intracellular delivery remains a significant challenge for many emerging therapies and the combination of oral bioavailability with non-immunogenic transfection could potentially benefit tens of millions of patients around the world."

Under the terms of the agreement, Matinas will receive an upfront access fee to work exclusively with BioNTech, as well as additional research funding from BioNTech. The parties have also commenced discussions on a license agreement for Matinas' LNC platform technology.

About BioNTech

Biopharmaceutical New Technologies is a next generation immunotherapy company pioneering novel therapies for cancer and other serious diseases. The Company exploits a wide array of computational discovery and therapeutic drug platforms for the rapid development of novel biopharmaceuticals. Its broad portfolio of oncology product candidates includes individualized and off-the-shelf mRNA-based therapies, innovative chimeric antigen receptor T cells, bi-specific checkpoint immuno-modulators, targeted cancer antibodies and small molecules. Based on its deep expertise in mRNA vaccine development and in-house manufacturing capabilities, BioNTech and its collaborators are developing multiple mRNA vaccine candidates for a range of infectious diseases alongside its diverse oncology pipeline. BioNTech has established a broad set of relationships with multiple global pharmaceutical collaborators, including Genmab, Sanofi, Bayer Animal Health, Genentech, a member of the Roche Group, Regeneron, Genevant, Fosun Pharma and Pfizer.

For more information, please visit www.BioNTech.de.

BioNTech Forward-looking Statements

This press release contains “forward-looking statements” of BioNTech within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may include, but may not be limited to, statements concerning: BioNTech's collaboration with Matinas; the ability of Matinas' LNC delivery platform to facilitate the intracellular delivery of nucleic acids following oral administration; and the ability of BioNTech to commercialize mRNA medicines using the LNC delivery platform, if successfully developed. Any forward-looking statements in this press release are based on BioNTech current expectations and beliefs of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements.

For a discussion of these and other risks and uncertainties, see the section entitled “Risk Factors” in BioNTech's Annual Report on Form 20-F for the Year Ended December 31, 2021, filed with the SEC on March 30, 2022, which is available on the SEC's website at www.sec.gov. All information in this press release is as of the date of the release, and BioNTech undertakes no duty to update this information unless required by law.

About Matinas BioPharma

Matinas BioPharma is a biopharmaceutical company focused on redefining the intracellular delivery of nucleic acids and small molecules with its lipid nanocrystal (LNC) platform technology. The Company is developing its own internal portfolio of products as well as partnering with leading pharmaceutical companies to develop novel formulations that capitalize on the unique characteristics of the LNC platform.

Preclinical and clinical data have demonstrated that this novel technology can provide

solutions to many of the challenges in achieving safe and effective intracellular delivery, for both small molecules and larger, more complex molecules, such as mRNA, DNA plasmids, antisense oligonucleotides and vaccines. The combination of a unique mechanism of action and flexibility with formulation and route of administration (including oral), positions Matinas' LNC technology to potentially become one of the leading next-generation intracellular drug delivery vehicles.

For more information, please visit www.matinasbiopharma.com.

Matinas 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, our collaboration with BioNTech, the potential of our LNC platform delivery technology, and the future development of its product candidates, the Company's ability to identify and pursue development, licensing 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.

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