Three-year Phase 1 Follow-Up Data for mRNA-based Individualized Immunotherapy Candidate Show Persistence of Immune Response and Delayed Tumor Recurrence in Some Patients with Resected Pancreatic Cancer

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- *Three-year follow-up data of an investigator-initiated Phase 1 trial of the individualized mRNA cancer vaccine candidate autogene cevumeran (BNT122, RO7198457) continue to show polyspecific T cell responses up to three years and delayed tumor recurrence in patients with resected pancreatic ductal adenocarcinoma ("PDAC")*
- *A randomized Phase 2 clinical trial with autogene cevumeran in patients with resected PDAC is currently enrolling patients at clinical trial sites in the United States, with additional sites planned to open globally*
- *The medical need in PDAC is high with a 5-year overall survival rate of only 8-10%[1,2], high recurrence rates after surgery at nearly 80%[3] and limited treatment options*
- *Autogene cevumeran, jointly developed by BioNTech and Genentech Inc. ("Genentech"), a member of the Roche Group, is the lead candidate of BioNTech's mRNA-based individualized cancer vaccine platform iNeST and currently being evaluated in three ongoing randomized Phase 2 clinical trials in adjuvant PDAC, first-line melanoma, and adjuvant colorectal cancer*

MAINZ, Germany, April 7, 2024 - BioNTech SE (Nasdaq: BNTX, "BioNTech" or "the Company") today announced three-year follow-up data from a Phase 1 trial with the mRNA-based individualized neoantigen-specific immunotherapy ("iNeST") candidate autogene cevumeran (also known as BNT122, RO7198457) in patients with resected pancreatic ductal adenocarcinoma ("PDAC"). The data show that in 8 out of 16 patients autogene cevumeran elicited an immune response up to three years post administration measured by activated T cells. The persistence of T cels was associated with a longer median recurrence-free survival in cancer vaccine responders.

"These new data are an early signal for the potential of our individualized mRNA cancer vaccine approach in this indication with an unmet medical need. The results indicate that our uridine mRNA-LPX technology can promote activation of cytotoxic T cells that may help to eliminate residual tumor foci at early stages of the disease to delay or prevent recurrence," said **Prof. Özlem Türeci, M.D., Co-Founder and Chief Medical Officer at BioNTech**. "Our ongoing Phase 2 trial with Genentech aims to confirm these findings on benefit for patients with PDAC compared with the current standard of care treatment in the post-surgical, adjuvant setting in a larger patient population. We remain committed to our vision of personalized cancer medicine and aim to help advance the standard of care for many patients."

The results featured in an oral presentation at the American Association for Cancer Research ("AACR") Annual Meeting 2024 show the following:

- In 8 of 16 patients, autogene cevumeran elicited high-magnitude T cells specific to the encoded neoantigens.
- 98% of the T cells targeting individual neoantigens on the tumor and induced by autogene cevumeran were de novo in that they were not detected in blood, tumors, and adjacent tissues prior to administration of the investigational treatment.
- Over 80% of the vaccine-induced neoantigen-specific T cells could still be detected up to three years post administration in patients with an immune response. These patients showed a prolonged median recurrence-free survival compared to non-responders.
- 6 of 8 patients with an immune response to autogene cevumeran remained disease free during the three-year follow-up period, while 7 of the 8 patients without an immune response to the treatment during the trial showed tumor recurrence.

The investigator-initiated, single center Phase 1 trial (NCT04161755) evaluated the safety of autogene cevumeran in sequential combination with the anti-PD-L1 immune checkpoint inhibitor atezolizumab and standard-of-care chemotherapy in 16 patients with resected PDAC. Data from the 1.5-year median follow-up were published in Nature in May 2023. The current data update includes a three-year median follow-up and was presented in a late-breaking oral presentation at the AACR Annual Meeting 2024 in San Diego, California, by principal investigator Vinod Balachandran, M.D., surgeon-scientist at Memorial Sloan Kettering Cancer Center and principal investigator of the study.

An ongoing open-label, multicenter, randomized Phase 2 trial (NCT05968326), sponsored by Genentech in collaboration with BioNTech, was started in October 2023. The trial will investigate the efficacy and safety of adjuvant autogene cevumeran in combination with the anti-PD-L1 immune checkpoint inhibitor atezolizumab and chemotherapy compared with the current standard of care chemotherapy (mFOLFIRINOX) in patients with PDAC. The Phase 2 trial is currently enrolling patients at clinical trial sites in the United States, with additional sites planned to open globally. Autogene cevumeran is being jointly developed by BioNTech and Genentech and is currently being evaluated in three ongoing randomized Phase 2 clinical trials in adjuvant PDAC (as mentioned above), first-line melanoma, and adjuvant colorectal cancer.

About resected pancreatic ductal adenocarcinoma (PDAC)

PDAC is amongst the leading causes of cancer-related deaths in the United States[4] with approximately 90% of patients dying within two years of their diagnosis[5]. A combination of surgical removal and systemic cytotoxic chemotherapy has shown to improve clinical outcomes; however, even with surgical resection, the relapse rate remains high, and the 5-year overall survival is only approximately 20%[6] in patients who undergo surgery followed by adjuvant chemotherapy ("ACT") and only 8-10% [1,2] in those who do not receive ACT. Thus, there is an unmet medical need for novel therapies for patients with resected PDAC.

About iNeST (individualized Neoantigen Specificimmuno Therapy)

iNeST immunotherapies are investigational individualized cancer therapies tailored to a specific patient's tumor. They contain unmodified, pharmacologically optimized mRNA encoding up to 20 patient-specific neoantigens, identified using real-time next-generation sequencing and bioinformatic neoantigen discovery. Neoantigens are proteins that are produced by cancer cells that differ from the proteins produced by healthy cells and are recognized by immune cells. The mRNA is encapsulated in BioNTech's proprietary intravenous RNA-lipoplex delivery formulation which is designed to enhance stability as well as enable targeted delivery to dendritic cells. By analyzing each patient's tumor, BioNTech is able to identify the cancer mutations that may act as neoantigens. Each individual cancer vaccine encodes for neoantigen candidates with the highest likelihood of helping the immune system recognize the cancer. For this purpose, BioNTech has developed an on-demand manufacturing process, following Good Manufacturing Practice (GMP) conditions. Autogene cevumeran is currently being evaluated in various solid tumor indications, including three Phase 2 clinical trials in first-line melanoma, adjuvant colorectal cancer, and adjuvant pancreatic ductal adenocarcinoma.

An iNeST Fact Sheet and images from the iNeST manufacturing process are available in the newsroom section on BioNTech's website at this link.

About BioNTech
Biopharmaceutical New Technologies (BioNTech) is a global next generation immunotherapy company pioneering novel therapies for cancer and other serious diseases. BioNTech 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 (CAR) T cells, several protein-based therapeutics, including bispecific immune checkpoint modulators, targeted cancer antibodies and antibody-drug conjugate (ADC) therapeutics, as well as 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 and specialized pharmaceutical collaborators, including Biotheus, DualityBio, Fosun Pharma, Genentech, a member of the Roche Group, Genevant, Genmab, OncoC4, Pfizer and Regeneron.

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

BioNTech Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, but not be limited to, statements concerning: the collaboration between BioNTech and Genentech to jointly clinical develop the individualized neoantigen specific immunotherapy ("iNeST") program candidate autogene cevumeran (BNT122, RO7198457); the initiation, timing, progress and results of BioNTech's research and development programs in oncology, including the targeted timing and number of additional potentially registrational trials; the registrational potential of any trial BioNTech may initiate for BNT122; BioNTech's current and future preclinical studies and clinical trials in oncology, including autogene cevumeran in patients with resected PDAC; the nature and characterization of and timing for release of clinical data; the planned next steps in BioNTech's pipeline programs, including, but not limited to, statements regarding timing or plans for initiation or enrollment of clinical trials, or submission for and receipt of product approvals with respect to BioNTech's product candidates; the ability of BioNTech's mRNA technology to demonstrate clinical efficacy outside of BioNTech's infectious disease platform; and the potential safety and efficacy of BioNTech's product candidates. In some cases, forward-looking statements can be identified by terminology such as "will," "may," "should," "expects," "intends," "plans," "aims," "anticipates," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words.

The forward-looking statements in this press release are based on BioNTech's current expectations and beliefs of future events, and are neither promises nor guarantees. You should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, many of which are beyond BioNTech's control and which could cause actual results to differ materially and adversely from those expressed or implied by these forward-looking statements.These risks and uncertainties include, but are not limited to: the uncertainties inherent in research and development, including the ability to meet anticipated clinical endpoints, commencement and/or completion dates for clinical trials, regulatory submission dates, regulatory approval dates and/or launch dates, as well as risks associated with preclinical and clinical data, including the data discussed in this release, and including the possibility of unfavorable new preclinical, clinical or safety data and further analyses of existing preclinical, clinical or safety data; the nature of clinical data, which is subject to ongoing peer review, regulatory review and market interpretation; the ability to produce comparable clinical results in future clinical trials; the timing of and BioNTech's ability to obtain and maintain regulatory approval for BioNTech's product candidates; discussions with regulatory agencies regarding timing and requirements for additional clinical trials; BioNTech's and its counterparties' ability to manage and source necessary energy resources; BioNTech's ability to identify research opportunities and discover and develop investigational medicines; the ability and willingness of BioNTech's third-party collaborators to continue research and development activities relating to BioNTech's development candidates and investigational medicines; unforeseen safety issues and potential claims that are alleged to arise from the use of products and product candidates developed or manufactured by BioNTech; BioNTech's and its collaborators' ability to commercialize and market, if approved, its product candidates; BioNTech's ability to manage its development and expansion; regulatory developments in the United States and other countries; BioNTech's ability to effectively scale BioNTech's production capabilities and manufacture BioNTech's products and BioNTech's product candidates; risks relating to the global financial system and markets; and other factors not known to BioNTech at this time.

You should review the risks and uncertainties described under the heading "Risk Factors" in BioNTech's Annual Report on Form 20-F for the year ended December 31, 2023 and in subsequent filings made by BioNTech with the SEC, which are available on the SEC's website at www.sec.gov. These forward-looking statements speak only as of the date hereof. Except as required by law, BioNTech disclaims any intention or responsibility for updating or revising any forward-looking statements contained in this press release in the event of new information, future developments or otherwise.

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