BioNTech and DualityBio Initiate Pivotal Phase 3 Trial Of Antibody-Drug Conjugate Candidate BNT323/DB-1303 in Metastatic Breast Cancer

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- *The pivotal Phase 3 trial with BNT323/DB-1303 follows positive Phase 1/2 safety and efficacy data in patients with Human Epidermal Growth Factor Receptor 2 ("HER2")-expressing advanced solid tumors with early signs of anti-tumor activity in heavily pretreated patients with HER2-low and HER2-positive breast cancer*
- *The trial is expected to enroll 532 patients with Hormone Receptor-positive ("HR+") and HER2-low metastatic breast cancer progressing on hormone therapy at clinical trial sites worldwide, initially in China, followed by sites in the United States, Europe, and additional regions*
- *The clinical milestone is in furtherance of BioNTech's and DualityBio's strategic objective to advance BNT323/DB-1303 into late-stage development in multiple high unmet medical need cancer indications*

MAINZ, Germany and SHANGHAI, China, January 22, 2024 – BioNTech SE (Nasdaq: BNTX, "BioNTech") and Duality Biologics (Suzhou) Co., Ltd. ("DualityBio") today announced that the first patient with metastatic breast cancer has been treated in a pivotal Phase 3 trial evaluating the efficacy and safety of the next-generation antibody-drug conjugate ("ADC") candidate BNT323/DB-1303 targeting the Human Epidermal Growth Factor Receptor 2 ("HER2"), a cancer cell surface protein.

Breast cancer is the most commonly diagnosed cancer worldwide and the leading cause of death from malignant tumors in women globally.[1,2] The breast cancer subtype, which is defined by the expression of hormone receptors ("hormone receptor-positive", "HR+") and a low expression level of the HER2 protein ("HER2-low") on the cancer cell surface, accounts for approximately 40 % to 45 % of patients in advanced, metastatic disease stage.[3] HER2 has been shown to be a suitable target structure for the treatment of breast cancers with intermediate and high HER2 expression.[4] HER2-directed therapies have been ineffective in the past in patients with tumors with low expression levels of the protein.[5] Recent studies have indicated that next-generation ADCs may have the potential to transfer the impact of HER2-directed therapies to HER2-low tumors.[6]

The global, multi-center, open-label, randomized Phase 3 trial (NCT06018337) will assess the efficacy and safety of BNT323/DB-1303 compared to standard-of-care single-agent chemotherapy in chemotherapy-naïve patients with HR+ and HER2-low metastatic breast cancer that have progressed on hormone therapy. The trial is expected to enroll 532 patients at more than 223 clinical sites worldwide, initially in China, followed by sites in the United States, Europe, and additional regions. The study's primary endpoint is progression-free survival. Secondary endpoints include overall survival, objective response rate, duration of response, and safety.

"For patients with advanced HR+/HER2-low breast cancers who progressed after primary therapy, single-agent palliative chemotherapy is the most common regimen to control the disease and reduce mortality. BNT323/DB-1303 has been designed with the aim to combine the selectivity of antibodies with the cancer cell-killing properties of chemotherapy, thereby aiming to minimize the toxicity of the chemotherapeutic agents for patients," said **Prof. Özlem Türeci, M.D., Chief Medical Officer and Co-Founder at BioNTech**. "Our objective is to further expand the impact of HER2-targeted ADC therapies to chemotherapy naïve patients in metastatic disease stage who express HER2 at low levels at earliest possible treatment lines, seeking to extend the therapeutic window and improve outcomes for these patients."

"The initiation of the Phase 3 trial marks an important step in the development of our next-generation ADC candidate with the first indication progressing into pivotal evaluation," said **Vivian Gu, M.D., Chief Medical Officer at DualityBio**. "Results from our Phase 1/2 clinical study indicate a robust mechanism of action of BNT323/DB-1303 and have demonstrated preliminary efficacy and a manageable safety profile. We look forward to further advancing this differentiated ADC candidate."

The Phase 3 trial is based on positive safety and efficacy data from a Phase 1/2 study (NCT05150691) with BNT323/DB-1303 in patients with advanced/metastatic solid tumors. Data presented at ASCO 2023 demonstrated encouraging anti-tumor activity in heavily pretreated patients with HER2-low breast cancer with an objective response rate of 38.5% and a disease control rate of 84.6%. BNT323/DB-1303 was well tolerated with a manageable safety profile across all evaluated patients with advanced/metastatic solid tumors.

The milestone is in furtherance of BioNTech and DualityBio's strategic objective to advance the product candidate into late-stage development in multiple high unmet medical need cancer indications. The Phase 3 trial initiation marks a major landmark in BioNTech's and DualityBio's strategic collaboration initiated in April 2023. The collaboration aims to accelerate the development of differentiated antibody-drug conjugate therapeutics for solid tumors. BioNTech will hold commercial rights globally (excluding Mainland China, Hong Kong Special Administrative Region, and Macau Special Administrative Region), while DualityBio will retain commercial rights for Mainland China, Hong Kong Special Administrative Region, and Macau Special Administrative Region.

Further information for media: Fact Sheet about BNT323/DB-1303

About BNT323/DB-1303
BNT323/DB-1303 is a third-generation topoisomerase-1 inhibitor-based ADC targeting HER2 which was built from DualityBio's proprietary Duality Immune Toxin Antibody Conjugates ("DITAC") platform. HER2 is a surface-expressed protein on solid tumors and has been linked to the aggressive growth and spread of cancer cells, making it a potential target for innovative cancer therapeutics. The candidate has exhibited antitumor activity in both HER2-positive and HER2-low tumor models as well as in several solid tumor indications, including patients with breast, gastric, endometrial, biliary tract cancers, and other advanced solid tumors. Preclinical data and preliminary clinical data for BNT323/DB-1303 indicate its potential to target HER2 receptors on solid tumors irrespective of expression level with a manageable safety profile and a potentially expanded therapeutic window. BNT323/DB-1303 is currently being evaluated in an ongoing Phase 1/2 study (NCT05150691) in patients with advanced/metastatic solid tumors and

in a pivotal Phase 3 study (NCT06018337) in patients with Hormone Receptor-positive ("HR+") and Human Epidermal Growth Factor Receptor 2 ("HER2")-low, metastatic breast cancer that have progressed on hormone and/or cyclin-dependent kinase 4/6 ("CDK4/6") therapy. The BNT323/DB-1303 program received the Fast Track designation and Breakthrough Therapy designation from the U.S. Food and Drug Administration ("FDA") for the treatment of endometrial cancer in 2023.

About BioNTech

Biopharmaceutical New Technologies (BioNTech) 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 ("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 pharmaceutical collaborators, including Duality Biologics, Fosun Pharma, Genentech, a member of the Roche Group, Genevant, Genmab, OncoC4, Regeneron and Pfizer.

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

About DualityBio

DualityBio is a clinical-stage company focusing on the discovery and development of the next generation ADC therapeutics for patients with cancer and autoimmune diseases. DualityBio has successfully established a number of next generation Antibody-Drug Conjugate (ADC) technology platforms with global intellectual property rights. Building upon deep understanding of disease biology and translational capability, DualityBio has advanced 4 assets into global clinical studies, and developed more than 10 innovative product candidates which are currently in preclinical stage. Additionally, DualityBio is continuing evolving its novel protein engineering and ADC technology platforms for the next wave of "super ADC" molecules including diverse payload classes, bispecific ADCs and dual payload ADCs.

For more information, please visit www.dualitybiologics.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 DualityBio to jointly clinical develop antibody-drug conjugates (ADCs) including BNT323/DB-1303; timing of the pivotal Phase 3 trial as well as any subsequent data readouts; the registrational potential of any trial we may initiate for BNT323/DB-1303; the nature and characterization of and timing for release of clinical data across BioNTech's platforms, which is subject to peer review, regulatory review and market interpretation; 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; the potential safety and efficacy of BioNTech's other product candidates; and BioNTech's anticipated market opportunity and size for its product candidates. Any forward-looking statements in this press release are based on BioNTech's 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. These risks and uncertainties include but are not limited to discussions with regulatory agencies regarding timing and requirements for additional clinical trials; and the ability to produce comparable clinical results in future clinical trials. 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 neither promises nor guarantees, and 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 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 the clinical data, which is subject to ongoing peer review, regulatory review and market interpretation; the timing of and BioNTech's ability to obtain and maintain regulatory approval for BioNTech's product candidates; 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 Report on Form 6-K for the period ended September 30, 2023, and in subsequent filings made by BioNTech with the U.S. Securities and Exchange Commission ("SEC"), which are available on the SEC's website at www.sec.gov. 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. These forward-looking statements are based on BioNTech's current expectations and speak only as of the date hereof.

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