



Pfizer and BioNTech Confirm High Efficacy and No Serious Safety Concerns Through Up to Six Months Following Second Dose in Updated Topline Analysis of Landmark COVID-19 Vaccine Study

April 1, 2021

- Analysis of 927 confirmed symptomatic cases of COVID-19 demonstrates BNT162b2 is highly effective with 91.3% vaccine efficacy observed against COVID-19, measured seven days through up to six months after the second dose
- Vaccine was 100% effective in preventing severe disease as defined by the U.S. Centers for Disease Control and Prevention and 95.3% effective in preventing severe disease as defined by the U.S. Food and Drug Administration
- Vaccine was 100% effective in preventing COVID-19 cases in South Africa, where the B.1.351 lineage is prevalent
- Vaccine safety now evaluated in more than 44,000 participants 16 years of age and older, with more than 12,000 vaccinated participants having at least six months follow-up after their second dose
- The companies plan to share these results with worldwide regulatory agencies soon

New York and Mainz, Germany, April 1, 2021 — [Pfizer Inc.](#) (NYSE: PFE) and [BioNTech SE](#) (Nasdaq: BNTX) today announced updated topline results from analysis of 927 confirmed symptomatic cases of COVID-19 observed in their pivotal Phase 3 study through March 13, 2021, showing that the Pfizer-BioNTech COVID-19 vaccine, BNT162b2, was 91.3% effective against COVID-19, measured seven days through up to six months after the second dose. The vaccine was 100% effective against severe disease as defined by the U.S. Centers for Disease Control and Prevention (CDC), and 95.3% effective against severe COVID-19 as defined by the U.S. Food and Drug Administration (FDA). Safety data from the Phase 3 study has also been collected from more than 12,000 vaccinated participants who had a follow-up time of at least six months after the second dose, demonstrating a favorable safety and tolerability profile.

“These data confirm the favorable efficacy and safety profile of our vaccine and position us to submit a Biologics License Application to the U.S. FDA,” said **Albert Bourla, Chairman and Chief Executive Officer, Pfizer**. “The high vaccine efficacy observed through up to six months following a second dose and against the variant prevalent in South Africa provides further confidence in our vaccine’s overall effectiveness.”

“It is an important step to further confirm the strong efficacy and good safety data we have seen so far, especially in a longer-term follow-up,” said **Ugur Sahin, CEO and Co-founder of BioNTech**. “These data also provide the first clinical results that a vaccine can effectively protect against currently circulating variants, a critical factor to reach herd immunity and end this pandemic for the global population.”

About the Analysis

The updated analysis of the Phase 3 clinical trial was conducted in accordance with guidance from the FDA for all companies investigating COVID-19 vaccines to review safety and efficacy at key milestones.

Results from this analysis of 46,307 trial participants build upon and confirm previously released data and demonstrate strong protection against COVID-19 through six months post-second dose. From the 927 confirmed symptomatic cases of COVID-19 in the trial, 850 cases of COVID-19 were in the placebo group and 77 cases were in the BNT162b2 group, corresponding to vaccine efficacy of 91.3% (95% confidence interval [CI, 89.0, 93.2]).

32 cases of severe disease, as defined by the CDC, were observed in the placebo group versus none in the BNT162b2 vaccinated group, indicating that the vaccine was 100% efficacious in this analysis against severe disease by the CDC definition (95% CI, [88.0,100.0]). 21 severe cases, as defined by the FDA, were observed in the placebo group versus one case in the BNT162b2 vaccinated group, indicating 95.3% efficacy by the FDA definition (95% CI, [71.0, 99.9]).

Efficacy was generally consistent across age, gender, race and ethnicity demographics, and across participants with a variety of underlying conditions.

A total of 697 cases of COVID-19 were observed in the United States; 647 cases of COVID-19 were observed in the placebo group versus 50 in the vaccine group, indicating vaccine efficacy of 92.6% (95% CI, [90.1, 94.5]).

In South Africa, where the B.1.351 lineage is prevalent and 800 participants were enrolled, nine cases of COVID-19 were observed, all in the placebo group, indicating vaccine efficacy of 100% (95% CI, [53.5, 100.0]). In an exploratory analysis, the nine strains were sequenced and six of the nine were confirmed to be of the B.1.351 lineage. These data support previous results from immunogenicity studies demonstrating that BNT162b2 induced a robust neutralizing antibody response to the B.1.351 variant, and although lower than to the wild-type strain, it does not appear to affect the high observed efficacy against this variant.ⁱ

No serious safety concerns were observed in trial participants up to six months after the second dose. Side effects were generally consistent with previously reported results. Vaccine safety has now been evaluated in more than 44,000 participants aged 16 years and older with more than 12,000 vaccinated participants having at least six months of follow-up after their second dose.

Pfizer and BioNTech plan to submit detailed data for scientific peer review and potential publication in the near future.

The Pfizer-BioNTech COVID-19 Vaccine, BNT162b2, has not been approved or licensed by the U.S. Food and Drug Administration (FDA), but has been authorized for emergency use by FDA under an Emergency Use Authorization (EUA) to prevent Coronavirus Disease 2019 (COVID-19) for use in individuals 16 years of age and older. The emergency use of this product is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of the medical product under Section 564 (b) (1) of the FD&C Act unless the declaration is terminated or authorization revoked sooner. Please see Emergency Use Authorization (EUA) Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) including Full EUA Prescribing Information available at www.cvdvaccine.com.

The vaccine, which is based on BioNTech proprietary mRNA technology, was developed by both BioNTech and Pfizer. BioNTech is the Marketing

subject to differing interpretations and assessments, including during the peer review/publication process, in the scientific community generally, and by regulatory authorities; whether and when additional data from the BNT162 mRNA vaccine program (including the topline data outlined in this release) will be published in scientific journal publications and, if so, when and with what modifications and interpretations; whether regulatory authorities will be satisfied with the design of and results from these and any future preclinical and clinical studies; whether and when a Biologics License Application for BNT162b2 may be filed in the U.S. and whether and when other biologics license and/or emergency use authorization applications or amendments to any such applications may be filed in particular jurisdictions for BNT162b2 or any other potential vaccines that may arise from the BNT162 program, and if obtained, whether or when such emergency use authorization or licenses will expire or terminate; whether and when any applications that may be pending or filed for BNT162b2 (including a potential Biologics License Application in the U.S. or any requested amendments to the emergency use authorization) or other vaccines that may result from the BNT162 program may be approved by particular regulatory authorities, which will depend on myriad factors, including making a determination as to whether the vaccine's benefits outweigh its known risks and determination of the vaccine's efficacy and, if approved, whether it will be commercially successful; decisions by regulatory authorities impacting labeling or marketing, manufacturing processes, safety and/or other matters that could affect the availability or commercial potential of a vaccine, including development of products or therapies by other companies; disruptions in the relationships between us and our collaboration partners or third-party suppliers; risks related to the availability of raw materials to manufacture a vaccine; challenges related to our vaccine's ultra-low temperature formulation, two-dose schedule and attendant storage, distribution and administration requirements, including risks related to storage and handling after delivery by Pfizer; the risk that we may not be able to successfully develop other vaccine formulations; the risk that we may not be able to create or scale up manufacturing capacity on a timely basis or maintain access to logistics or supply channels commensurate with global demand for our vaccine, which would negatively impact our ability to supply the estimated numbers of doses of our vaccine within the projected time periods as previously indicated; whether and when additional supply agreements will be reached; uncertainties regarding the ability to obtain recommendations from vaccine technical committees and other public health authorities and uncertainties regarding the commercial impact of any such recommendations; uncertainties regarding the impact of COVID-19 on Pfizer's business, operations and financial results; and competitive developments.

A further description of risks and uncertainties can be found in Pfizer's Annual Report on Form 10-K for the fiscal year ended December 31, 2020 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Information and Factors That May Affect Future Results", as well as in its subsequent reports on Form 8-K, all of which are filed with the U.S. Securities and Exchange Commission and available at www.sec.gov and www.pfizer.com.

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 efforts to combat COVID-19; the collaboration between BioNTech and Pfizer to develop a COVID-19 vaccine (including a potential second booster dose of BNT162b2 and/or a potential booster dose of a variation of BNT162b2 having a modified mRNA sequence); our expectations regarding the potential characteristics of BNT162b2 in our clinical trials and/or in commercial use based on data observations to date; the ability of BNT162b2 to prevent COVID-19 caused by emerging virus variants; the expected time point for additional readouts on efficacy data of BNT162b2 in our clinical trials; the nature of the clinical data, which is subject to ongoing peer review, regulatory review and market interpretation; the timing for submission of data for, or receipt of, any marketing approval or Emergency Use Authorization; our contemplated shipping and storage plan, including our estimated product shelf life at various temperatures; and the ability of BioNTech to supply the quantities of BNT162 to support clinical development and market demand, including our production estimates for 2021. 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. These risks and uncertainties include, but are not limited to: the ability to meet the pre-defined endpoints in clinical trials; competition to create a vaccine for COVID-19; the ability to produce comparable clinical or other results, including our stated rate of vaccine effectiveness and safety and tolerability profile observed to date, in the remainder of the trial or in larger, more diverse populations upon commercialization; the ability to effectively scale our production capabilities; and other potential difficulties.

For a discussion of these and other risks and uncertainties, see BioNTech's Annual Report as Form 20-F for the Year Ended December 31, 2020, filed with the SEC on March 30, 2021, 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.

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ⁱ *New England Journal of Medicine*. Neutralizing Activity of BNT162b2-Elicited Serum; March 8, 2021. Available at <https://www.nejm.org/doi/full/10.1056/NEJMc2102017>