Dear Ms. Harkins,

Our review of your pharmacovigilance plan for COMIRNATY (COVID-19 Vaccine, mRNA) under BLA STN 125742/0 is ongoing. We have the following comments regarding the information included in the amendment 51 dated August 16, 2021.

1. For Study C4591031 you have proposed to add a new substudy of 1,000 participants with documented receipt of 2 prior 30 μg doses of BNT162b2 (the second dose received at least 6 months ago), 16 to 30 years of age (randomized 1:1 in a crossover design to receive 30 μg BNT162b2 or placebo at baseline and the alternative 4 weeks later). For the 1,000 participants in the substudy, you have proposed to schedule a blood draw to obtain a serum sample for storage and potential future troponin testing, at baseline and 2-5 days after the third dose of BNT162b2. You have also indicated that you will prepare to start enrollment of 1,000 participants into the C4591031 substudy in January 2022. In the context the proposed substudy, please discuss the feasibility of enrolling participants who have not yet received the first or second dose of BNT162b2 (with enrollment starting as soon as possible) and also evaluating troponin I levels within 2 to 5 days following the second dose.

2. For Study C4591007 you have proposed to add 750 participants 5 to <12 years of age (randomized 2:1 to receive BNT162b2 10 μg or placebo) and 500 participants 12-15 years of age (open label receipt of BNT162b2 30 μg). These participants would be introduced through a protocol amendment. For these additional participants you have proposed to schedule a blood draw to obtain a serum sample for storage and potential future troponin testing, at baseline and 2-5 days after the second dose of BNT162b2. We acknowledge the challenge in projecting a definitive sample size and dates for a study to assess the incidence of subclinical myocarditis using troponin elevations as a biomarker. However, should your BLA for this product be approved, we will include the proposed evaluation of troponin I levels in Study C4591007 as a postmarketing requirement under Section 505(o) of the Federal Food, Drug and Cosmetic Act. You have previously provided the following study milestone dates for Study C4591007, which you have proposed as a deferred study under the Pediatric Research Equity Act (PREA):

- Final Protocol Submission: February 8, 2021
- Study Completion: October 31, 2023
- Final Report Submission: March 31, 2024

For the troponin I evaluation in Study C4591007, please provide the projected Study Completion and Final Report Submission dates if different from those above.
3. In response to our request to propose a study(ies) in adolescents 12 through 17 years of age to evaluate the safety and immunogenicity of lower doses of BNT162b2, we acknowledge your response that you have submitted protocol amendment 2 to IND 19736 for Study C4591007. This protocol amendment includes Phase 1 evaluation of dose levels of 3 μg and 10 μg in individuals 12 to <16 years of age and 16 to <30 years of age (32 participants per dose level and age group). Based on the results from Phase 1, one dose level will be selected for each age group for Phase 3 evaluation of safety and immunogenicity in 300 participants per age group. You have previously provided the following study milestone dates for Study C4591007, which you have proposed as a deferred study under PREA:

   - Final Protocol Submission: February 8, 2021
   - Study Completion: October 31, 2023
   - Final Report Submission: March 31, 2024

   For the proposed dose level evaluation in individuals 12 to <16 years of age and 16 to <30 years of age in Study C4591007, please provide the projected Study Completion and Final Report Submission dates if different from those above.

Please provide your responses in an amendment to STN 125742/0 by COB Wednesday, August 18, 2021. We recommend that you restate each item and follow it with your explanation or clarification. Use of this format helps organize the relevant information and provides a self-contained document that facilitates future reference.

Please confirm receipt of this email and let me know if you have any questions or need additional information.

Regards,

Ram

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