The information provided herein is considered JRD, LLC trade secrets, commercial or financial information that JRD, LLC customarily holds close and treats as confidential. The information is being provided under the assurance that the U.S. Department of Health and Human Services and all of its agencies, including the Assistant Secretary for Preparedness and Response, Biomedical Advanced Research and Development Authority, will maintain the confidentiality of the information under the Trade Secrets Act, Procurement Integrity Act, other applicable statutes, regulations, rules, case law contractual provisions, protective orders or otherwise and as such, the information provided herein is exempt from disclosure under Exemption 4 of the Freedom of Information Act ("FOIA").

AMENDMENT OF OTHER TRANSACTION AGREEMENT (OTA)

OTHER TRANSACTION FOR ADVANCED RESEARCH (OTAR)

Agreement Number HHSO100201700018C
Effective Date of Agreement: August 15, 2017

BETWEEN

JANSSEN RESEARCH & DEVELOPMENT LLC
920 ROUTE 202
RARITAN, NJ 08869, USA

AND

THE UNITED STATES OF AMERICA
DEPARTMENT OF HEALTH AND HUMAN SERVICES
BIOMEDICAL ADVANCED RESEARCH AND DEVELOPMENT AUTHORITY
O'NEILL HOUSE OFFICE BUILDING
WASHINGTON, DC 20515

CONCERNING

INFLUENZA PORTFOLIO AND OTHER EMERGING PATHOGENS DEVELOPMENT CANDIDATES

Amendment No. 0008

Effective Date of Modification: Upon Last Signature in Section III

Total Amount of the Agreement is increased by (b)(4) for addition COVID (b)(4) (b)(4) cost share adjustment from $715,837,436 to (b)(4) (Includes Recipient and Government Funding).

Government Share of Total Amount of the Agreement is increased by (b)(4) from (b)(4) to (b)(4)

Recipient Share of Total Amount of the Agreement is increased by (b)(4) for scope increase and (b)(4) cost share adjustment from (b)(4) to (b)(4)

Current Government commitment: with the scope/cost estimate adjustment to Work Packages ("WP") 6.1 - 6.7 and the addition and authorization of WPs 6.8 – 6.10 and 6.13 – 6.16, the total Funds Obligated is increased by $456,237,081 from $233,288,786 to $689,525,867.

Current Recipient commitment: with the scope/cost estimate adjustment to WPs 6.1 - 6.7, the addition and authorization of WPs 6.8 – 6.10 and 6.13 – 6.16 of (b)(4) and the (b)(4) (b)(4) the total Recipient Funds Obligated is increased by (b)(4) from (b)(4) to (b)(4)

Authority: Section 319L(C)(5) of the Public Health Service Act, 42 USC 247d-7e(C)(5).

Line of Accounting and Appropriation:

(b)(4)

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I. AMENDMENT PURPOSE

This Amendment seeks to utilize Recipient's expertise to perform research and development for vaccine and therapeutic candidates for the current COVID-19 pandemic and declared public health emergency.

By the Parties' mutual agreement and within the existing Agreement's general scope, this Amendment No. 0008 bilaterally:

i. replenishes funding (b)(4) to the COVID-19 vaccine efforts added to Amendment 0006;

ii. incorporates the scope of work previously added via Amendment 0006 for Pre-clinical thru Clinical Phase 1 Study, WPs 6.1 - 6.7, which will be removed from Amendment 0006 and will be added to this Amendment 0008;

iii. adjusted Work Packages 6.1 - 6.7 to reflect an updated scope and budget;

iv. exercises Work Package 6.7;

v. adds Work Packages 6.8 - 6.16;

vi. updates the Statement of Work (Exhibit-A) to reflect COVID-19 Vaccine, Work Packages (WP) 6.1 – 6.16. The COVID-19 Vaccine Work Packages 6.1 – 6.10 and 6.13 – 6.16 as described in the Exhibit-A, Statement of Work are considered added and funded non-severable independent work packages as of the date of this amendment; Work Packages 6.11 (Pediatric Study) and 6.12 (High-risk Populations are identified as Options to be exercised at a future date based on (i) JOC recommendation, (ii) availability of funding and (iii) a signed amendment between the Parties.

vii. updates the Essential Considerations in paragraph II.C. below;

viii. Article IV: Management of the Project, Section A (3) Organizational Chart, is updated to include the respective Technical Leads for the COVID-19 program;

ix. (b)(4)

x. Within Agreement Number HHSO100201700018C, Article XVI: Special Clauses the Section R, Public Readiness and Emergency Preparedness Act ("PREP ACT") Coverage, is added.

II. AMENDMENTS TO AGREEMENT

A. Incorporate new Cost Share Estimates/Budget Summary and Budget Allocation/Workplan Structure (Exhibit B) to reflect the COVID-19 Vaccine estimated costs and cost shares.

1) Pursuant to Agreement Article VI(C), the budget allocation summary of assets is hereby replaced to incorporate the following.

(b)(4)

2) Budget Allocation/Workplan Structure (also included as Exhibit B) reflects the budget allocation summary and provides details for the budget incorporated in this Amendment 0008. This updated Exhibit B reflects the adjusted WPs 6.1 – 6.7 cost estimates, adds the new WPs (6.8 - 6.16) and replenishes funding (b)(4)
(b)(4)

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(b)(4)

B. Updated the Statement of Work - The Statement of Work shall be replaced to reflect the new COVID-19 Vaccine, Work Packages (WP) 6.1 – 6.16. The updated SOW for incorporation in the OTA is included in Exhibit A.

C. Essential Considerations as added via Amendment 0006 and amended herein and made applicable to Amendments 0007 (COVID-19 Antiviral) and 0008 (COVID-19 Vaccines):

By the Parties' mutual agreement and within the existing Agreement's general scope, this Amendment No. 0008 bilaterally acknowledges the Parties' agreement that:

i. Recipient will adhere to commercial practices when engaging subcontractors, including, if necessary, relief from OTA flow down provisions that otherwise may apply;

ii. Recipient will use reasonable efforts to include rights for BARDA consistent with its IP rights specified under Articles IX and X of the OTA in negotiations with third parties controlling such IP rights. In the circumstance that 1) a sub-contractor is not willing to agree to the flow-down terms regarding IP and data rights in Articles IX and X of the Flu OTA, and 2) the sub-contractor's proposed terms are materially less than the scope of the flow-down IP and data rights in Articles IX and X of the Flu OTA, then Recipient will confer with BARDA (OTAO, OTTR, and Respective Asset Lead) in writing (email is acceptable) to gain alignment on the sub-contractor IP and data rights that BARDA believes are necessary in the specific instance. Such alignment on BARDA's concerns with Recipient's sub-contractor's IP and data rights shall be provided within a reasonable timeframe based upon the urgency of the situation at that time. If alignment on sub-contractor IP and data rights reaches an impasse and BARDA is unable to accept any lesser rights than those for which it is entitled to under the Flu OTA, Recipient and BARDA agree that no government funds shall be used for the impacted scope of work, however, Recipient may proceed at its own cost. Such activities conducted at Recipient's own cost are not subject to the terms and conditions of this OTA; however, any impacted deliverables will be aligned to ensure program continuity;

iii. BARDA shall not restrict Recipient's engagement or collaboration with other parties, such as other agencies, international organizations, governments or NGOs, seeking Recipient's participation in the effort to develop solutions to counter the threat of the coronavirus, including receipt of funding (to the extent that Recipient is not receiving funding from multiple sources for the exact same work it is performing here under), use of Recipient's technology, or any other support or collaboration that Recipient determines is needed; and

iv. Reporting Requirements of the above referenced OTAs will include only those requirements necessary to maintain sufficient updating during these dramatically accelerated development programs.

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D. Article IV: Management of the Project Section A (3) Organizational Chart is deleted and replaced with the following:

(b)(4)

E. Article XIII: Subcontracting is amended to add a supplemental section for COVID-19 initiatives;

(b)(4)

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F. Article XVI: Special Clauses the following clauses are added:

i. Section R, Public Readiness and Emergency Preparedness Act ("PREP ACT") Coverage, is added:

R. Public Readiness and Emergency Preparedness Act ("PREP ACT") Coverage

The Federal Government may not use, or authorize the use of, any products or materials provided under either this agreement or any future purchase from Recipient's domestic manufacturing capacity unless such use occurs in the United States and is protected from liability under a declaration issued under the Public Readiness and Emergency Preparedness Act, 42 U.S.C. § 247d-6d.

Except as provided in this Amendment, all terms and conditions of the Agreement, unless previously changed, remain unchanged and in full force and effect.

III. SIGNATURES

Acknowledged, accepted, and agreed for

Janssen Research & Development, LLC

(b)(6)

U.S. Department of Health & Human Services
Office of the Assistant Secretary for Preparedness & Response
Biomedical Advanced Research & Development Authority

BY: James Harris -S Digitally signed by James Harris -S Date: 2020.03.27 16:47:10 -04'00'

NAME: James Harris
ITS: Other Transaction Agreement Officer
DATE:

ATTACHMENT 1: TASK DESCRIPTION DOCUMENT (SOW)

Overall Objectives and Scope

Seasonal and pandemic influenza remains one of the most important public health threats despite current vaccine and therapeutic options. The Consortium is developing a broad portfolio of innovative and novel countermeasures against influenza and other emerging infectious diseases comprising small molecules, biologics and vaccines. The portfolio employs (b)(4) modes of action complementary to current Standard of Care treatments to develop single or combination therapies that have the potential to increase therapeutic benefit and preclude the rapid emergence of drug resistance. The (b)(4) aims to (b)(4) the influenza vaccine field by providing broad protection for both seasonal and pandemic influenza.

Specifically, this Agreement includes: an influenza (b)(4) that is now ready for (b)(4) (b)(4) a (b)(4) influenza A or B viruses; (b)(4)

(b)(4)

In addition, Recipient may propose to augment the portfolio by replacing molecules listed in this SOW with backup molecules from their ongoing research programs. With support from the JOC, the Consortium may also consider in-licensing drug or vaccine candidates to supplement the Program's portfolio of emerging infectious disease medical countermeasures in the Field. Recipient may also add Consortium Members as may be appropriate or complimentary to the performance and goals of this Agreement.

(b)(4)

(b)(4)

(b)(4)

6 Novel Coronavirus ("2019-nCoV") Vaccine

6.1 Antigen design, manufacturability testing and preMVS manufacturing

Activities

- DNA encoding for several designs of the SARS-CoV-2 spike protein will be (b)(4) at multiple CROs
- Research batches of Ad26 vectors with (b)(4) (b)(4) of the spike protein (b)(4)

(b)(4)

- (b)(4) S:

- Several critical reagents such as expression plasmids, soluble proteins, peptide pools and detection antibodies will be generated or ordered

(b)(4)

WP6.2 Pre-Clinical Immunology (Performed at Janssen or (b)(4)

Activities

(b)(4)

(b)(4)

WP6.3 CMC Development until First in Human ("FIH")

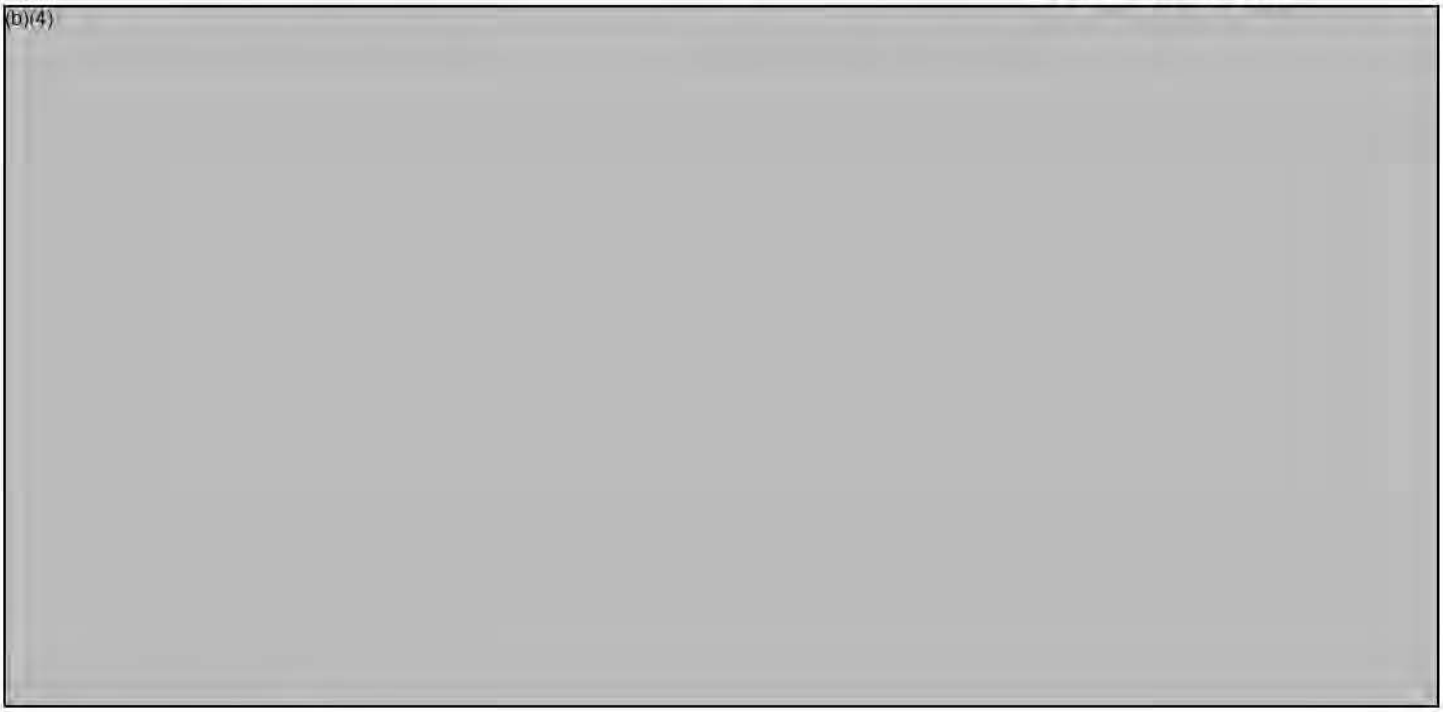
(b)(4)

WP6.4 Clinical Development and Regulatory Activities to Start First in Human Study

Activities

- Setup of immunological assays at CROs or at Janssen:
  (b)(4)
- Writing of protocol elements document (PED)
- Protocol writing
- Writing and submission of preIND document
- Writing and submission of IND documents
- Contracting with vendors

(b)(4)

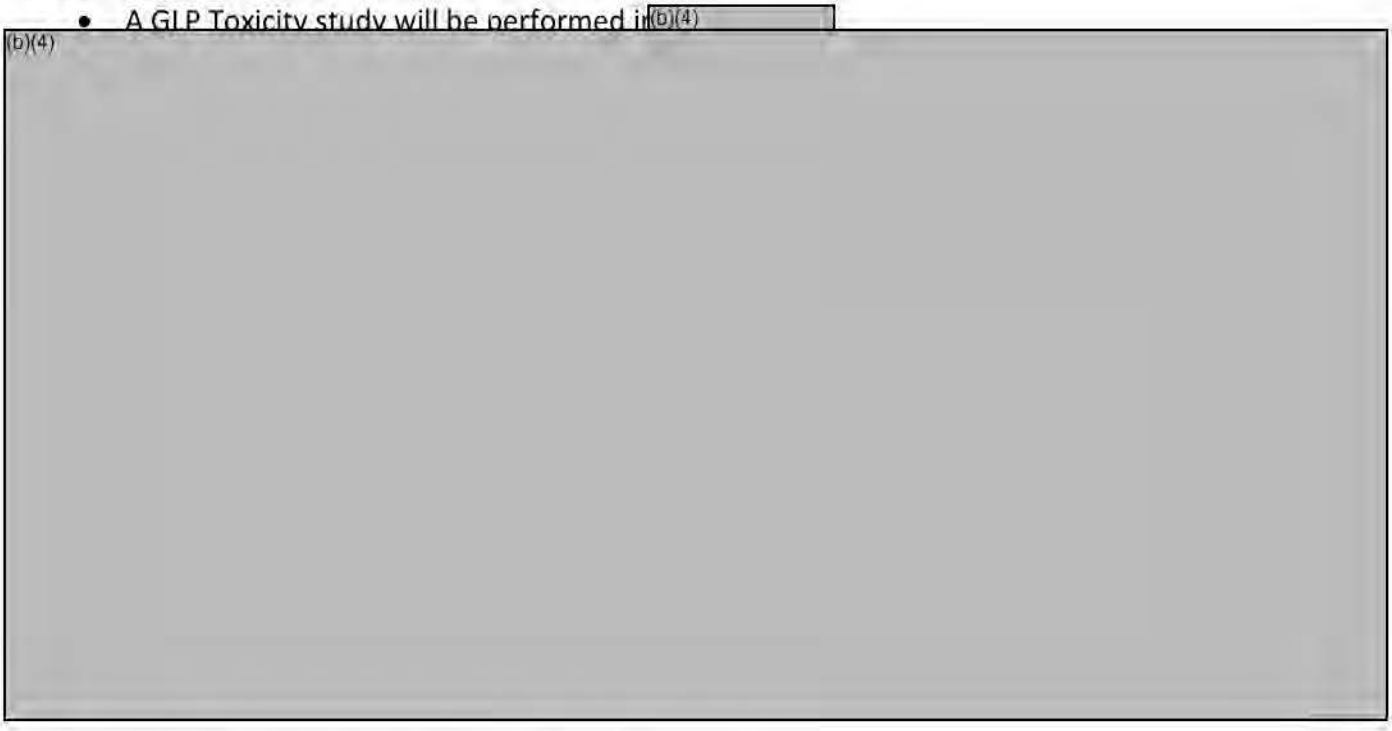


WP6.5 GLP Toxicology

Activities

- A GLP Toxicity study will be performed in (b)(4)

(b)(4)

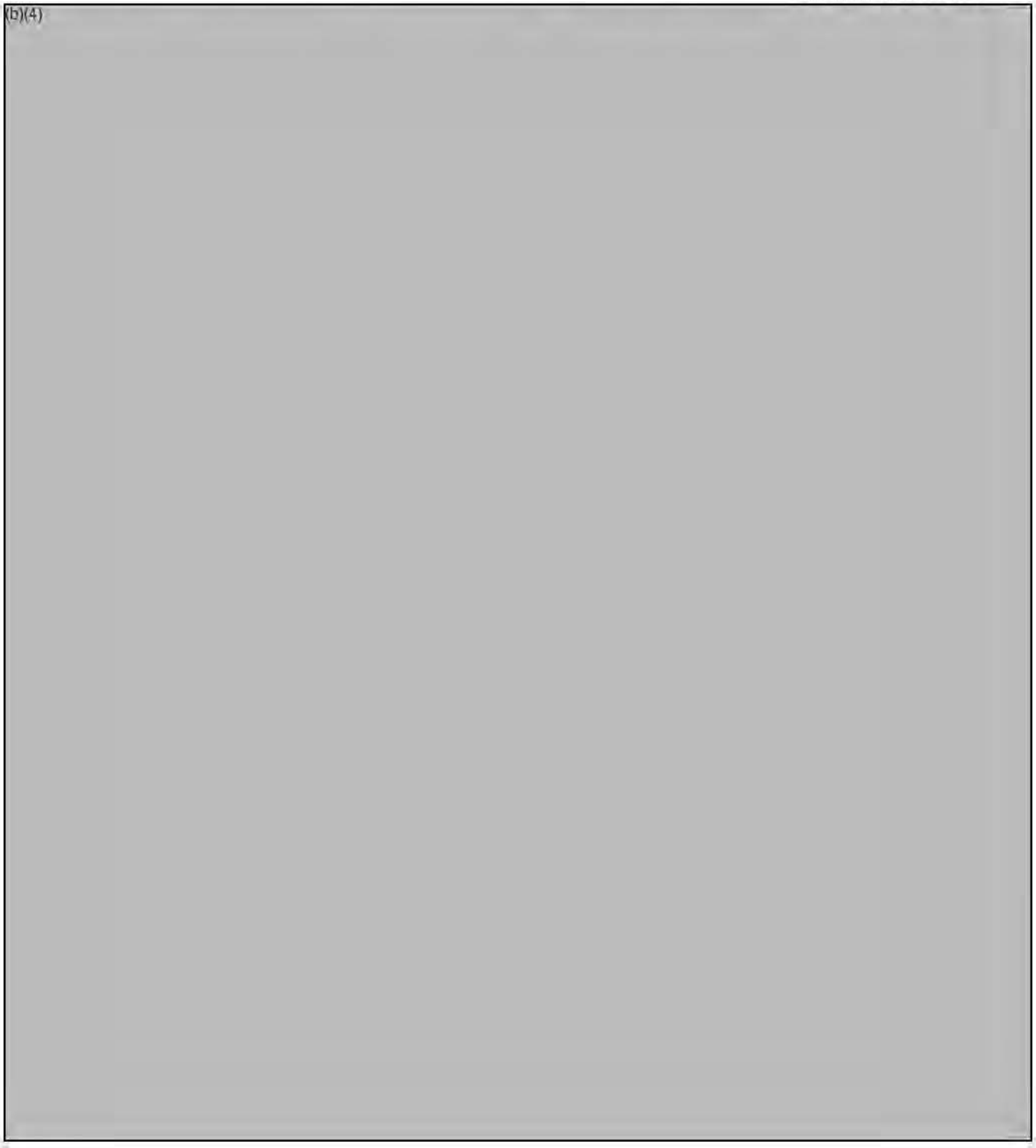


WP6.6 GMP Manufacturing to Enable Clinical Trials

Activities until First in Human ("FIH")

- Master Virus Seed manufacturing and release

(b)(4)



WP6.7 Phase 1/2a Clinical Trial

Activities

- Randomized, placebo-controlled, (b)(4) double blind study in healthy adult volunteers 18-55yrs, 65 and older.

- Primary objective will be assessment of safety and reactogenicity. Secondary and exploratory endpoints will evaluate vaccine-induced immune responses to SARS-CoV-2.
- (b)(4)
-
- (b)(4) 18-55 yr old, (b)(4)
(b)(4) 18-55 yr, (b)(4)
(b)(4)
(b)(4) in 65 or older: (b)(4)
(b)(4)
(b)(4)

(b)(4) aged 18-55 adults (b)(4)
(b)(4)

WP6.8 CMC Development and GMP Manufacturing Process to Enable Large Scale Manufacturing and Launch to Support the Regulatory Filing

Activities;

(b)(4)

- PPQ for both DS and DP will be executed.
- (b)(4)
- Studies to enable launch and support licensure will be assessed and executed as appropriate.
- (b)(4)

(b)(4)

(b)(4)

WP6.9 Toxicology Studies

A Phase 1 enabling GLP toxicology study is described under WP6.5. (b)(4)

(b)(4)

Activities

- Conduct developmental and reproductive toxicity (DART) study

(b)(4)

(b)(4)

WP6.10 Phase 3 Study Adults

A variety of factors including manufacturing and CMC considerations, preclinical data, the state of the COVID-19 pandemic and primarily the safety and the immunogenicity of the vaccine as demonstrated in (b)(4) will be considered before proceeding to Phase 3 studies. T(b)(4)

(b)(4)

The Phase 3 pivotal efficacy study (b)(4) will be a randomized placebo-controlled study in adults (b)(4)

(b)(4)

(b)(4)

International agencies are contemplating comparative trials between vaccine candidates and this will be considered at the time of proceeding to Phase 3.

OPTION - WP6.11 Pediatric Study

Clinical studies with immunologic endpoints will be performed in children (b)(4)
Sample size will be calculated (b)(4)
(b)(4)

OPTION - WP6.12 High-risk Populations

(b)(4)

WP6.13 Other Clinical Studies

Phase 3 Consistency Lot Study

A Phase 3 consistency lot trial comparing consecutive manufactured lots of the vaccine plus potentially a lot used in the Phase 3 efficacy trial (if consistency lot material is not utilized in the efficacy trial) will be performed. The objective of the study is to demonstrate that the immune responses to the (b)(4) lots are non-inferior to each other based on a margin acceptable to regulatory agencies. (b)(4)
(b)(4)

Phase 3 End Expiry Study

A Phase 3 end expiry study will be performed to determine that the vaccine at the end of the shelf life is still immunogenic at a level that it elicits immune responses that are expected to be protective. (b)(4)
(b)(4) The vaccine will then be tested at a dose that is consistent with this model for the end of shelf life, taking assay variation and stability into account. (b)(4)
(b)(4)

(b)(4)

Phase 3 Concomitant Use Trial

Phase 3 concomitant use trials may be performed. (b)(4)

(b)(4)

WP6.14 Regulatory Support

Activities to establish an IND for an Ad26-based COVID-19 vaccine will involve an arrangement of a pre-IND meeting with CBER before the intended IND submission (b)(4)

(b)(4)

The pre-IND and IND preparation to enable Phase 1 will be led by RA. Further regulatory activities beyond Phase I are interactions with FDA to support the development of the vaccine up to regulatory submission (to be discussed: pre-EUA and/or BLA submission, or other pathways as per Agency's guidance). This involves an end-of-Phase 2 meeting and a pre-BLA meeting. Type C meetings will be scheduled on an as-needed basis. Pediatric requirements will be discussed as per Agency's requirements.

Annual reports will be prepared and submitted to CBER according to the foreseen timelines after the IND comes into effect. Development of regulatory intelligence with respect to development and licensing of a COVID-19 vaccine will carefully be monitored.

Discussions with other regulatory Agencies as required by the program and in particular to allow for a harmonized approach from a CMC, non-clinical and clinical development perspective, and facilitate multi-country trials as required per discussion with the Agencies, may also have to be conducted and will then be covered under WP6.14.

WP6.15 Project Management Support

This WP includes the Program Management activities associated with development of an Ad26-based COVID-19 vaccine. The program will have an (b)(4) (b)(4) who will oversee their specific (b)(4) requirements. This includes conducting frequent and regular (b)(4) meetings to ensure the accurate developing and tracking of the budget, timeline and resource plan. The (b)(4) team of each asset will also include relevant functional (b)(4) and a (b)(4) (b)(4) The Program will also have an (b)(4) who will oversee their specific Technical requirements. This includes conducting frequent and regular (b)(4) (b)(4) meetings to define the overall development strategy. The (b)(4) of each asset will include, but is not limited to, the Technical Lead, Preclinical Leader, Clinical Leader, the CMC Leader and, the Regulatory Leader. Clinical Team and Trial teams will oversee clinical program and trial execution. These teams include operational staff, Operational Leader sand representatives of operational departments such as data management; GCO; medical writing, programming, stats. Additional expertise required for executing asset-specific work possibly including subcontractors may be added as part of (b)(4) and (b)(4)

WP6.16 Dissecting the Evolution of SARS-CoV-2 and Specific Humoral and Cellular Immunity Following Infection

Activities

- The understanding of the roles that (b)(4) responses to SARS-CoV-2 are thought to play in protection, disease resolution, or enhancement of disease are evolving with the assessment of patients with varying disease outcomes. (b)(4) (b)(4)
- Identification of antigen-specific biomarkers of disease trajectory (survival, disease, death) and SARS-CoV-2 specific immune responses against the virus by (b)(4) approaches (b)(4) using samples from previously and prospectively collected, longitudinal cohorts at the (b)(4) (b)(4)

Page 23

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(b)(4)

of the Freedom of Information Act

Page 24

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of the Freedom of Information Act

(b)(4)

8 Project Management

(b)(4)

8.1 Joint Oversight Committee

The Joint Oversight Committee (JOC) is the larger decision-making body that provides guidance, direction and control to the projects to ensure execution of the projects according to the SOW. The JOC will discuss and approve any changes to the SOW. To that extent, the JOC will meet at critical decision points in the program, but no less than two times per year, preferably face to face or alternatively by WebEx or telephone conference. Ad hoc meetings will be organized when urgent matters arise. The JOC will consist of voting and non-voting members from BARDA and Janssen. Additional, non-voting members can be assigned or invited on an ad hoc basis. Decisions to reprioritize specific projects and resources as the need arises will be taken by consensus. In case such a decision cannot be

reached in the JOC, the decision will be escalated to one BARDA and one Janssen senior management member identified at the start of the project.

8.2 PMO Steering Committee

The PMO (Program Management Organization) steering committee has dual responsibilities. One area of responsibility is the communication and coordination with BARDA regarding day to day management and execution of the project e.g. organizing meetings on a regular agreed basis. In addition, the PMO Steering Committee will coordinate all SOW activities and provide the technical and administrative infrastructure to ensure efficient planning, initiation, implementation, direction, management and completion of all tasks. This will be coordinated by the Project Manager Leader (PML). The Steering Committee will assess progress and where needed will work out strategic changes to be decided upon by the JOC. The Steering Committee consists of a group of dedicated and specialized Project Management experts, key personnel and additional specific expertise for the functions that are required for executing the specific work scope for each proposed asset area.

8.3 Asset Project Management (WP 2.5, WP 5.5, WP 6.15, WP 7.6.1, and 7.6.2)

These WPs include the Program Management activities associated with each of the assets. Each asset will have an (b)(4) who will oversee their specific P(b)(4) equirements. This includes conducting frequent and regular (b)(4) meetings to ensure the accurate developing and tracking of the budget, timeline and resource plan. The (b)(4) (b)(4) team of each asset will also include relevant functional (b)(4) and a (b)(4) Each asset will also have an (b)(4) who will oversee their specific Technical requirements. This includes conducting frequent and regular (b)(4) meetings to define the overall development strategy. The (b)(4) of each asset will include Technical Lead, Preclinical Leader, Clinical Leader, the CMC Leader and, the Regulatory Leader. Additional expertise required for executing asset-specific work possibly including subcontractors may be added as part of (b)(4) and (b)(4)

(b)(4)

(b)(4)

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(b)(4)