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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 scope (b)(4)
(b)(4) cost share adjustment from (b)(4) to (b)(4)
(b)(4) (Includes Recipient and Government Funding).

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

Recipient Share of Total Amount of the Agreement is increased by (b)(4) for scope increase (b)(4)
(b)(4) cost share adjustment from (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 (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 (b)(4) 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 (b)(4)
- vii. updates the (b)(4) 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

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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.

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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.

(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

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:

(b)(6)

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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) and (b)(4) influenza A or B viruses; a (b)(4) (b)(4) and (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)

6.1 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 (b)(4) of the spike protein (b)(4)
- (b)(4)
- (b)(4)
- (b)(4)
- The PreMVS, with selected antigen, will be released based on the following assays:

(b)(4)

- 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)

(b)(4)

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

Activities

- (b)(4)
- (b)(4) method development will occur to make insert specific assays fit for purpose.
- (b)(4) PER.C6® (b)(4)
(b)(4) Ad26-based COVID
(b)(4) PER.C6® cell line
(b)(4) PER.C6® (b)(4)

(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 (b)(4)

- (b)(4)

(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)

Activities for WPs 6.10 - 6.13,

(b)(4)

(b)(4)

WP6.7 Phase 1/2a Clinical Trial

Activities

- Randomized, placebo-controlled, (b)(4) double blind study in healthy adult volunteers (b)(4)

- 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)

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

Activities;

(b)(4)



(b)(4)



(b)(4)

WP6.9 Toxicology Studies

A Phase 1 enabling GLP toxicology study is described under WP6.5.

(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. (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.

(b)(4)

(b)(4)



WP6.13 Other Clinical Studies

Phase 3 Consistency Lot Study

A Phase 3 consistency lot trial comparing (b)(4) 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)

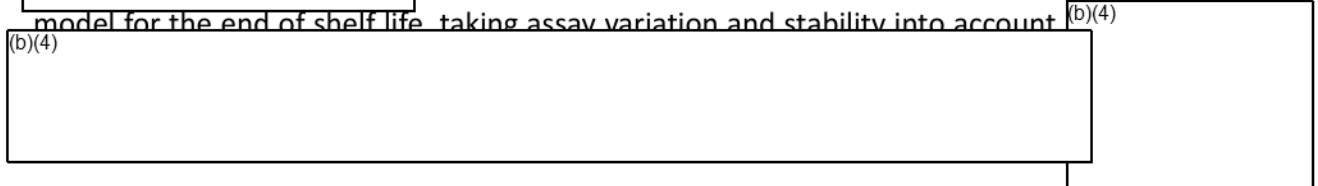
(b)(4)



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) to the pre-IND, (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) an (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)
- 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 (b)(4) previously and prospectively collected, longitudinal cohorts at the (b)(4)

(b)(4)

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(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 (b)(4), WP 6.15, (b)(4)

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 (b)(4) acting 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)

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(b)(4)