NONREIMBURSABLE UMBRELLA INTERAGENCY AGREEMENT

between the

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES and the NATIONAL AERONAUTICS AND SPACE ADMINISTRATION FOR COOPERATION IN RESEARCH, TECHNOLOGY, AND DEVELOPMENT ACTIVITIES RELATED TO HUMAN HEALTH AND PUBLIC HEALTH

I. AUTHORITY AND PARTIES

The National Aeronautics and Space Administration (hereinafter referred to as "NASA") enters into this Nonreimbursable Umbrella Interagency Agreement (hereinafter referred to as "IAA"), in accordance with the National Aeronautics and Space Act, 51 U.S.C. § 20113(e). The U.S. Department of Health and Human Services (hereinafter referred to as "HHS"), enters into this IAA in accordance with the authority of 42 U.S.C. § 241. NASA and HHS may be individually referred to as a "Party" and collectively referred to as the "Parties."

II. PURPOSE

The purpose of this IAA is to share innovative ideas for addressing science and technology challenges and promoting collaboration and cooperation in research and development activities related to human health and public health. Both Parties recognize the importance of leveraging each other's expertise and will identify areas of shared interests where the Parties will further collaborate and efficiently utilize resources.

The Parties will share information, coordinate and collaborate on research that could improve human health on Earth and in space. The Parties will work collaboratively to facilitate joint research, technology transfer, and technology development. These goals will be pursued through joint research focusing on science and technology topics of interest to NASA and HHS.

HHS is the government's principal agency for protecting the health of all Americans and providing essential human services. HHS manages programs that cover a vast spectrum of activities that impact health, public health and human service outcomes over the life span. HHS is expanding its scientific understanding of how to advance health care, public health, human services, biomedical research and the availability of safe medical and food products. HHS is conducting rigorous evaluations of new approaches that reward efficiency, effectiveness, and sustainability. NASA's focus is to support discovery and invention, and demonstrate new technologies, tools, and techniques that will allow our Nation to explore space while improving life on Earth. NASA is expanding human exploration by developing the capability to transport humans to and from deep space, enabling the exploration of other planets using innovative, advanced technologies. NASA continues to develop technologies to enable the additional

capabilities that will be required the farther away from Earth humans travel. The achievements of the efforts by NASA and HHS will benefit the Nation and maintain U.S. leadership in space exploration, biomedical research, and health care.

The activities through this IAA will also provide Parties an opportunity to jointly disseminate information about the Parties' respective programs and activities to the widest possible audience and advance mutual objectives towards improving U.S. education in the science, medical, technology, engineering and mathematics disciplines.

The Parties shall execute one (1) Annex (hereinafter referred to as the "Annex") concurrently with this IAA. The Parties may execute subsequent Annexes under this IAA consistent with the purpose and terms of this IAA. This IAA shall govern all Annexes executed hereunder; no Annex shall amend this IAA. Each Annex will detail the specific purpose of the proposed activity, responsibilities, schedule and milestones, and any goods, services, facilities, or equipment to be utilized under the task. This IAA takes precedence over any Annexes. In the event of a conflict between the IAA and any Annex concerning the meaning of its provisions and the rights, obligations and remedies of the Parties, the IAA is controlling.

III. RESPONSIBILITIES

A. NASA will use reasonable efforts to:

- 1. Provide support of projects undertaken in any Annex;
- 2. Provide internal coordination of approvals for Annexes; and
- 3. Provide for a single point of contact for Annex development and operations.

B. HHS will use reasonable efforts to:

- 1. Provide support of projects undertaken in any Annex;
- 2. Provide internal coordination of approvals for Annexes; and
- 3. Provide for a single point of contact for Annex development and operations.

IV. SCHEDULE AND MILESTONES

The Parties will execute one (1) Annex concurrently with this IAA. The initial Annex and any subsequent Annexes will be performed on the schedule and in accordance with the milestones set forth in each respective Annex.

V. FINANCIAL OBLIGATIONS

There will be no transfer of funds between the Parties under this IAA, and each Party will fund its own participation. All activities under or pursuant to this IAA are subject to the availability of funds, and no provision of this IAA shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act (31 U.S.C. § 1341).

VI. PRIORITY OF USE

Any schedule or milestone in this IAA is estimated based upon the Parties'understanding, at the time of the execution of any Annex under this IAA of the projected availability of its respective goods, services, facilities, or equipment. In the event that either Party's projected availability changes, NASA or HHS, respectively, shall be given reasonable notice of that change, so that the schedule and milestones may be adjusted accordingly. The Parties agree that NASA's and HHS's use of its own goods, services, facilities, or equipment shall have priority over the use planned in this IAA.

VII. LIABILITY AND RISK OF LOSS

Each Party agrees to assume liability for its own risks arising from or related to activities conducted under this IAA.

VIII. INTELLECTUAL PROPERTY - INVENTION AND PATENT RIGHTS

Unless otherwise agreed upon by NASA and HHS, custody and administration of inventions made (conceived or first actually reduced to practice) under this IAA will remain with the respective inventing Party. In the event an invention is made jointly by employees of the Parties (including by employees of a Party's contractors or subcontractors for which the U.S. Government has ownership), the Parties will consult and agree as to future actions toward establishment of patent protection for the invention.

IX. INTELLECTUAL PROPERTY - FREE EXCHANGE OF DATA

The Parties agree that the information and data exchanged in furtherance of the activities under this IAA will be exchanged without use and disclosure restrictions unless required by national security regulations (e.g., classified information) or as otherwise provided in this IAA or agreed to by the Parties for specifically identified information or data (e.g., information or data specifically marked with a restrictive notice).

X. INTELLECTUAL PROPERTY – DATA RIGHTS – HANDLING OF DATA

- A. In the performance of this IAA, NASA or HHS (as "Disclosing Party") may provide the other Party (as "Receiving Party") with:
 - 1. Data of third parties that the Disclosing Party has agreed to handle under protective arrangements, and /or licenses between the Disclosing Party and the the relevant third parties or is required to protect under the Trade Secrets Act (18

- U.S.C. § 1905) ("Third Party Proprietary Data"), providing that the Receiving Party agrees to comply with any restrictions contained in the relevant protective arrangements and/or licenses between the Disclosing Party and the relevant third parties when such protective arrangements and/or licenses are provided to the Receiving Party and referenced in the restrictive notice required by pargarph B of this Article X, or
- 2. Government data, including software, the use and dissemination of which, the Disclosing Party intends to control ("Controlled Government Data").
- B. All Third Party Proprietary Data and Controlled Government Data provided by Disclosing Party to Receiving Party shall be marked by Disclosing Party with a restrictive notice and protected by Receiving Party in accordance with this Article. However, the Disclosing Party may request that the Receiving Party that a separate protective (NDA) agreement be executed in order to share Third Party Proprietary Data and Controlled Government Data.

C. Identification of Data:

- 1. Third Party Proprietary Data and Controlled Government Data shall be identified in the Annex under which it will be provided.
- 2. NASA software and related Data shall be identified in the Annex under which it will be used, and provided under a separate Software Usage Agreement (SUA). HHS shall use and protect the related data in accordance with this clause.
- 3. HHS software and related Data shall be identified in the Annex under which it will be used, and provided under a separate Software Usage Agreement (SUA). NASA shall use and protect the related data in accordance with this clause.
- D. For such Data identified with a restrictive notice pursuant to paragraph B of this Article, including Data identified in an accompanying Annex, , Receiving Party shall:
 - 1. Use, disclose, or reproduce such Data only as necessary under this IAA;
 - 2. Comply with any protective arrangements, proprietary legends and/or licenses applicable to the Data referenced in the restrictive notice (and provided to the Receiving Party).
 - 3. Safeguard such Data from unauthorized use and disclosure;
 - 4. Allow access to such Data only to its employees and any related entity requiring access under this IAA;
 - 5. Except as otherwise indicated in D.3., preclude disclosure outside Receiving Party's organization;
 - 6. Notify its employees with access about their obligations under this Article and ensure their compliance, and notify any related entity with access about their obligations under this Article; and
 - 7. Dispose of such Data as Disclosing Party directs.
- E. If the Parties exchange Data having a notice deemed ambiguous or unauthorized by the receiving Party, it should tell the Disclosing Party. If the notice indicates a restriction,

the receiving Party must protect the Data under this Article X unless otherwise directed in writing by the Disclosing Party.

- F. Notwithstanding any restrictions provided in this Article, the Parties are not restricted in the use, disclosure, or reproduction of Data provided under this IAA that is:
 - 1. known or available from other sources without restriction;
 - 2. known, possessed, or developed independently, and without reference to the Proprietary Data;
 - 3. made available by the owners to others without restriction; or
 - 4. required by law, regulation or court order to be disclosed.

If a Party believes that any exceptions apply, it shall notify the other Party before any unrestricted use, disclosure, or reproduction of the Data.

XI. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or HHS may, consistent with Federal law and this IAA, release general information regarding its own participation in this IAA as desired. Insofar as participation of the other Party in this IAA is included in a public release, NASA and HHS will seek to consult with each other prior to any such release, consistent with the Parties' respective policies.

Pursuant to Section 841(d) of the NASA Transition Authorization Act of 2017, Public Law 115-10 (the "NTAA"), NASA is obligated to publicly disclose copies of all agreements conducted pursuant to NASA's 51 U.S.C. §20113(e) authority in a searchable format on the NASA website within 60 days after the agreement is signed by the Parties. The Parties acknowledge that, if this IAA is entered into pursuant to NASA's 51 U.S.C. §20113(e) authority, this IAA will be disclosed, without redaction, in accordance with the NTAA.

XII. TERM OF AGREEMENT

This IAA becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or five years from the Effective Date, whichever comes first.

XIII. RIGHT TO TERMINATE

Either Party may unilaterally terminate this IAA or any Annex(es) by providing thirty (30) calendar days written notice to the other Party. Termination of an Annex does not terminate this IAA. However, the termination or expiration of this IAA also constitutes the termination of all outstanding Annexes.

XIV. CONTINUING OBLIGATIONS

The rights and obligations of the Parties that, by their nature, would continue beyond the expiration or termination of this IAA, e.g., "Liability and Risk of Loss" and "Intellectual Property Rights" and related clauses shall survive such expiration or termination of this IAA.

XV. POINTS OF CONTACT

The following offices are designated points of contact for this IAA.

HHS:

William Brady

Associate Deputy Secretary

Immediate Office of the Secretary (IOS)

U.S. Department of Health & Human Services

200 Independence Ave. S.W.

Washington, D.C. 20201

Phone: 202-690-6133 Fax: 202-619-1332

Email: william.brady@hhs.gov

Christopher Austin, MD

Director, National Center for Advancing

Translational Sciences, NIH

U.S. Department of Health and Human

Services

6701 Democracy Boulevard

Bethesda, MD 20817 Phone: 301-435-0878

Email: Christopher.Austin@nih.hhs.gov

NASA:

Craig E. Kundrot

Director

Space Life and Physical Sciences Research and Applications (SLPSRA)

NASA Headquarters

Mail Code 7M71

300 E. Street SW

Washington, D.C. 20546

Phone: 202-358-0854 Fax: 202-358-4292

Email: craig.e.kundrot@nasa.gov

XVI. DISPUTE RESOLUTION

All disputes concerning questions of fact or law arising under this IAA shall be referred by the claimant in writing to the appropriate person identified in this IAA for purposes of the activities undertaken in the IAA or Annex(es) for purposes of the activities undertaken in the Annex(es), as the "Points of Contact." The persons identified as the "Point of Contact" for NASA and the HHS will consult and attempt to resolve all issues arising from the implementation of this IAA. If they are unable to come to agreement on any issue, the dispute will be referred to the signatories to the IAA or Annex, as appropriate, or their designees, for joint resolution after the Parties have separately documented in writing clear reasons for the dispute. As applicable, disputes will be resolved pursuant to The Department of the Treasury's *Intragovernmental Transaction Guide* (Treasury Financial Manual, Vol. 1, Chapter 2, Part 4700, Appendix 10; hereinafter, the "Intragovernmental Transaction Guide").

XVII. MODIFICATIONS

Any modification to this IAA shall be executed, in writing, and signed by an authorized representative of NASA and HHS. Accompanying Annexes may be modified under the same terms. Modification of an Annex does not modify the IAA.

XVIII. LOAN OF GOVERNMENT EQUIPMENT

When appropriate, the Parties shall enter into a NASA Form 893, Loan of NASA Equipment, for NASA equipment loaned to HHS. Conversley, HHS may request that appropriate documentation be executed when HHS equipment is loaned to NASA.

XIX. APPLICABLE LAW

U.S. Federal law governs this IAA for all purposes, including, but not limited to, determining the validity of the IAA, the meaning of its provisions, and the rights, obligations, and remedies of the Parties.

XX. SIGNATORY AUTHORITY

Approved and authorized on behalf of each Party by:

U.S. Department of Health and Human	National Aeronautics and Space
Services	Administration
Eric Hangam	James Zypun =
HHS Deputy Secretary	NASA Chief Scientist
JUL 3 1 2018	7/31/18
Date	Date