Joint Genome Institute ("JGI") DNA Synthesis Community Science Program ("CSP")

BILATERAL DOE LABORATORY UTILIZATION MATERIAL TRANSFER AGREEMENT

THIS MATERIAL TRANSFER AGREEMENT (the "MTA"), effective as of the date of the final signature below (the "Effective Date") _____, is between The Regents of the University of California, Facility Operator of the Lawrence Berkeley National Laboratory under DOE Prime Contract No. DE-AC02-05CH11231 ("Berkeley Lab"), which manages the Joint Genome Institute for the U.S. Department of Energy and under DOE Prime Contract No. ("RECIPIENT" or "Organization") together, the "Parties".

I. Definitions:

1. PROVIDER: Berkeley Lab, which will provide the ORIGINAL MATERIAL to RECIPIENT.

2. PROVIDER SCIENTIST: Ian Blaby

3. RECIPIENT: Organization receiving the ORIGINAL MATERIAL.

4. RECIPIENT SCIENTIST: *[Add the name of the scientist at RECIPENT who will receive the Original Material.]*

5. ORIGINAL MATERIAL: The material generated in accordance with JGI Proposal number CSP- (hereinafter, the "JGI Proposal"), approved by RECIPIENT under Appendix No. A- to RECIPIENT'S Bilateral DOE Laboratory Utilization Agreement No. between the Parties, and transferred by the JGI under this MTA to RECIPIENT, and to be further described in Exhibit A-1 of the Material Transfer Record and any subsequent exhibits (i.e., A-2, A-3, A-4, etc.).

6. MATERIAL: ORIGINAL MATERIAL, PROGENY, and UNMODIFIED DERIVATIVES. The MATERIAL shall not include: (a) MODIFICATIONS, or (b) other substances created by the RECIPIENT through the use of the MATERIAL which are not MODIFICATIONS, PROGENY, or UNMODIFIED DERIVATIVES.

7. PROGENY: Unmodified descendant from the MATERIAL, such as virus from virus, cell from cell, or organism from organism.

8. UNMODIFIED DERIVATIVES: Substances created by the RECIPIENT which constitute an unmodified functional subunit or product expressed by the ORIGINAL MATERIAL. Some examples include: subclones of unmodified cell lines, purified or fractionated subsets of the ORIGINAL MATERIAL, proteins expressed by DNA/RNA supplied by the PROVIDER, or monoclonal antibodies secreted by a hybridoma cell line.

9. MODIFICATIONS: Substances created by the RECIPIENT which contain/incorporate the MATERIAL.

10. COMMERCIAL PURPOSES: The sale, lease, license, or other transfer of the MATERIAL or MODIFICATIONS to a for-profit organization. COMMERCIAL PURPOSES shall also include uses of the MATERIAL or MODIFICATIONS by any organization, including RECIPIENT, to perform contract research, to screen compound libraries, to produce or manufacture products for general sale, or to conduct research activities that result in any sale, lease, license, or transfer of the MATERIAL or MODIFICATIONS to a for-profit organization. However, industrially sponsored academic research shall not be considered a use of the MATERIAL or MODIFICATIONS for COMMERCIAL PURPOSES per se, unless any of the above conditions of this definition are met.

11. NONPROFIT ORGANIZATION(S): A university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute. As used herein, the term also includes government agencies and national laboratories.

II. Terms and Conditions of this MTA:

1. The PROVIDER retains ownership of the MATERIAL, including any MATERIAL contained or incorporated in MODIFICATIONS.

2. The RECIPIENT retains ownership of: (a) MODIFICATIONS (except that, the PROVIDER retains ownership rights to the MATERIAL included therein), and (b) those substances created through the use of the MATERIAL or MODIFICATIONS, but which are not PROGENY, UNMODIFIED DERIVATIVES or MODIFICATIONS (i.e., do not contain the ORIGINAL MATERIAL, PROGENY, UNMODIFIED DERIVATIVES). If either 2 (a) or 2 (b) results from the collaborative efforts of the PROVIDER and the RECIPIENT, they shall be jointly owned subject to rights retained by the U.S. Department of Energy (DOE) and subject to ARTICLE VII. RIGHTS IN PATENTS, TECHNICAL DATA, AND INTELLECTUAL PROPERTY of the Utilization Agreement, FP .

3. The RECIPIENT and the RECIPIENT SCIENTIST agree that the MATERIAL:

   (a) is to be used solely for teaching and academic research purposes;

   (b) will not be used in human subjects, in clinical trials, or for diagnostic purposes involving human subjects without the written consent of the PROVIDER;

   (c) is to be used only at the RECIPIENT organization and only in the RECIPIENT SCIENTIST's laboratory under the direction of the RECIPIENT SCIENTIST or others working under his/her direct supervision; and

(d) will not be transferred to anyone else within the RECIPIENT organization without the prior written consent of the PROVIDER.

4. The RECIPIENT and the RECIPIENT SCIENTIST agree to refer to the PROVIDER any request for the MATERIAL from anyone other than those persons working under the RECIPIENT SCIENTIST's direct supervision. To the extent supplies are available, the PROVIDER or the PROVIDER SCIENTIST agrees to make the MATERIAL available, under a separate material transfer agreement having terms consistent with the terms of this MTA, to other scientists (at least those at NONPROFIT ORGANIZATION(S)) who wish to replicate the RECIPIENT SCIENTIST's research; provided that such other scientists reimburse the PROVIDER for any costs relating to the preparation and distribution of the MATERIAL.

5.

(a) The RECIPIENT and/or the RECIPIENT SCIENTIST shall have the right, without restriction, to distribute substances created by the RECIPIENT through the use of the ORIGINAL MATERIAL only if those substances are not PROGENY, UNMODIFIED DERIVATIVES, or MODIFICATIONS.

(b) Under an agreement at least as protective of the PROVIDER's rights as this MTA, the RECIPIENT may distribute MODIFICATIONS to NONPROFIT ORGANIZATION(S) for research and teaching purposes only and subject to the provisions in paragraph II.10 of this MTA.

(c) Without written consent from the PROVIDER, the RECIPIENT and/or the RECIPIENT SCIENTIST may NOT provide MODIFICATIONS for COMMERCIAL PURPOSES which such written consent will not be unreasonably withheld or interfere with RECIPIENT’s obligations under its prime contract with DOE (“Prime Contract”). It is recognized by the RECIPIENT that such COMMERCIAL PURPOSES may require a commercial license from the PROVIDER and the PROVIDER agrees to cooperate with RECIPIENT in consideration of a grant of commercial license as indicated in paragraph 7. below. Nothing in this paragraph, however, shall prevent the RECIPIENT from granting commercial licenses under the RECIPIENT's intellectual property rights claiming such MODIFICATIONS, or methods of their manufacture or their use.

6. The RECIPIENT acknowledges that the MATERIAL is or may be the subject of a patent application. Except as provided in this MTA, no express or implied licenses or other rights are provided to the RECIPIENT under any patents, patent applications, trade secrets or other proprietary rights of the PROVIDER, including any altered forms of the MATERIAL made by the PROVIDER. In particular, no express or implied licenses or other rights are provided to use the MATERIAL, MODIFICATIONS, or any related patents of the PROVIDER for COMMERCIAL PURPOSES.

7. If the RECIPIENT desires to use or license the MATERIAL or MODIFICATIONS for COMMERCIAL PURPOSES, the RECIPIENT agrees, in advance of such use, to negotiate in good faith with the PROVIDER to establish the terms of a commercial license. It is understood by the RECIPIENT that the PROVIDER shall have no obligation to grant such a

license to the RECIPIENT, and may grant exclusive or non-exclusive commercial licenses to others, or sell or assign all or part of the rights in the MATERIAL to any third party(ies), subject to any pre-existing rights held by others and obligations to the Federal Government.

8. The RECIPIENT is free to file patent application(s) claiming inventions made by the RECIPIENT through the use of the MATERIAL but agrees to notify the PROVIDER upon filing a patent application claiming MODIFICATIONS or method(s) of manufacture or use(s) of the MATERIAL.

9. Any MATERIAL delivered pursuant to this MTA is understood to be experimental in nature and may have hazardous properties. The PROVIDER MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE MATERIAL WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHTS.

10. LIABILITY AND INDEMNIFICATION FOR TRANSFER(S) TO THIRD PARTY RECIPIENTS.

    (a) Each Party shall be responsible for the acts or omissions of its employees and personnel, and its use, storage or disposal of the MATERIAL. Each Party's responsibilities for the payment of claims, including from third parties, for the loss of property, personal injury or death, or otherwise arising out of any negligent act or omission of its employees due to or arising from the use of the MATERIAL by the RECIPIENT, shall be governed by each Party's respective Prime Contracts.

    (b) If RECIPIENT elects to provide MODIFICATIONS to a third party under the provisions of Paragraph 5(b), then RECIPIENT shall i) send PROVIDER prior written notice of such transfer of a MODIFICATION, and ii) except to the extent prohibited by state or federal law, RECIPIENT will require the third party recipient to separately indemnify and hold harmless the U.S. government and PROVIDER and their affiliates and their officers, agents, employees, and vendors or suppliers that contributed to the MATERIAL included in a MODIFICATION, from and against any action, claim, or liability, including attorneys' fees, arising out of any use, handling, storage or disposal of such MODIFICATIONS, including but not limited to any claims of patent infringement or other intellectual property-related claims. If such third-party recipient cannot provide the indemnification indicated in Paragraph II.10(b), then RECIPIENT shall include in the written agreement with such third-party recipient a liability provision no less protective to PROVIDER than the terms of Paragraph II.10(a).

11. This MTA shall not be interpreted to prevent or delay publication of research findings resulting from the use of the MATERIAL or the MODIFICATIONS. The RECIPIENT SCIENTIST agrees to provide appropriate acknowledgement of the source of the MATERIAL in all publications as provided in the Utilization Agreement.

12. The RECIPIENT agrees to use the MATERIAL in compliance with all applicable statutes and regulations, including Public Health Service and National Institutes of Health regulations and guidelines such as, for example, those relating to research involving the use of animals or recombinant DNA.

13. This MTA will terminate on completion of the RECIPIENT's current research with the MATERIAL, provided that:

    (i) Intentionally left blank.

    (ii) upon termination, the RECIPIENT will discontinue its use of the MATERIAL and will, upon direction of the PROVIDER, return or destroy any remaining MATERIAL. The RECIPIENT, at its discretion, will also either destroy the MODIFICATIONS or remain bound by the terms of this MTA as they apply to MODIFICATIONS;

    and

    (ii) in the event the PROVIDER terminates this MTA for cause such as an imminent health risk or patent infringement, the PROVIDER will defer the effective date of termination for a period of up to one year, upon request from the RECIPIENT, to permit completion of research in progress. Upon the effective date of termination, or if requested, the deferred effective date of termination, RECIPIENT will discontinue its use of the MATERIAL and will, upon direction of the PROVIDER, return or destroy any remaining MATERIAL. The RECIPIENT, at its discretion, will also either destroy the MODIFICATIONS or remain bound by the terms of this MTA as they apply to MODIFICATIONS.

14. Paragraphs 6, 9, and 10 shall survive termination.

15. No Party shall assign or otherwise transfer this MTA without the prior written consent of the other Party provided, however, that if the U.S. Department of Energy transfers responsibility for the RECIPIENT or Berkeley Lab to another entity, the RECIPIENT or Berkeley Lab, respectively, may assign this MTA to such entity or to the U.S. Department of Energy without such consent.

16. RECIPIENT agrees to comply with all applicable statutes pertaining to the MATERIAL or their handling, storage, use, or transportation and to comply with all applicable laws and regulations, and U.S. export control laws and sanction regulations, including, without limitation, the requirements of the International Traffic in Arms Regulations and the Export Administration Act. RECIPIENT shall not transfer, export, re-export or otherwise dispose of the MATERIAL to any third party without the prior written notification of the Berkeley Lab and subject to the provisions of paragraphs II.5 and II.10 in this MTA.

17. The MATERIAL is provided at no cost.

This MTA is effective when signed by all parties.

PROVIDER:	THE LAWRENCE BERKELEY NATIONAL LABORATORY WHICH MANAGES THE JOINT GENOME INSTITUTE
By:	
Name:	
Title:	
Date:	

RECIPIENT:	
By:	
Name:	
Title:	
Date:	

ACKNOWLEDGEMENT OF RECIPIENT
PRINCIPAL INVESTIGATOR/ RECIPIENT SCIENTIST

I have read and understand the Material Transfer Agreement between the RECIPIENT and Berkeley Lab having an Effective Date of _____, 2017. I AGREE TO ABIDE BY ITS TERMS AND CONDITIONS AND CERTIFY THE FOLLOWING:

I will comply with all applicable federal, state, or local laws and regulations pertaining to the MATERIAL or its handling, storage, use, or transportation.

I will not transfer, export, re-export or otherwise dispose of the MATERIAL to any third party if doing so would constitute a violation of applicable export control laws

The MATERIAL will be used for research purposes only and will not be used for diagnostic use, or for clinical trial purposes.

The MATERIAL will not be used in activities related to the development or the production of chemical or biological weapons, and the MATERIAL will only be used for civil end-users.

In particular, I certify that the requested MATERIAL (1) is not associated with the pathogenicity of a regulated agent; and/or (2) in itself or through its transcribed or translated products, the gene(s)

does not represent a significant hazard to human, animal or plant health; and/or (3) the gene(s) is (are) not known to enhance the ability of an agent or any other organism into which they may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health or the environment.

By: _____
(Signature)

Name: _____

Title: Principal Investigator/RECIPIENT SCIENTIST

Date: _____

Exhibit A-1
(Material Transfer Record)

(The JGI Project Manager will add Exhibit # and LBNL MTA Ref. No to each record sent to the Recipient Scientist.)