

## **MATERIAL TRANSFER AGREEMENT**

This Agreement dated and effective as of the date of the last signature on this agreement is by and between Synthetic Genomics, Inc., a Delaware corporation (“SGI”), J. Craig Venter Institute (“Provider”) and Indiana University (“Recipient”).

SGI owns certain materials, described as follows: Bacterial strains JCVI-Syn3A, which is a derivative of the minimal bacterial cell JCVI-Syn3.0, which is a derivative of *Mycoplasma mycoides* subspecies capri strain GM12, and any information provided to Recipient by SGI or Provider, as more specifically described in Exhibit A (“Material”). Recipient is interested in using the Material and related data solely for the purpose of using the JCVI-Syn3A bacterial strain in adapted laboratory evolution experiments done in collaboration with the JCVI (“Recipient Purpose”).

Acknowledging the adequacy of the consideration exchanged, SGI and Recipient agree to the following terms.

1. SGI agrees to transfer a sample of Material to Recipient. Material shall be transferred on behalf of SGI by Provider to Recipient and Recipient agrees to receive and only use the Material subject to and in accordance with the obligations set forth in this Agreement.
2. Recipient agrees that the Material: (a) will be used in compliance with all applicable statutes and regulations, such as, without limitation, those relating to research involving the use of animals or recombinant DNA, to use and handling of specific bacterial strains pursuant to USDA requirements, and to U.S. export control laws; (b) will not be used in human subjects, in clinical trials, or for diagnostic purposes involving human subjects without the written consent of SGI; (c) will be used only in Recipient’s laboratory; and (d) will not be transferred or otherwise made available to anyone outside of Recipient’s laboratory without the express prior written consent of SGI.
3. If the Material requires the Recipient to have USDA authorization to work with the Material, *e.g.*, Material consisting of, derived from or classified as *Mycoplasma* strains, Recipient shall provide verification of such authorization to SGI prior to transfer of Material.
4. SGI will retain ownership of (a) the Material, all expression products thereof, and all parts, progeny, unmodified derivatives and any SGI uses of any of the foregoing, (b) any Material contained or incorporated in modifications created by Recipient, and (c) all intellectual property rights in and to each of the foregoing (collectively, “SGI’s Rights”). Without limiting the generality of the foregoing, SGI shall have the right to exploit, license and otherwise transfer SGI’s Rights.

Recipient acknowledges that the Material is or may be the subject of a patent application. Except as provided in this Agreement, 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 SGI, including any altered forms of the Material made by SGI. In particular, no express or implied licenses or other rights are provided to use the Material, modifications, or any related patents of SGI for Commercial Purposes.

Recipient will promptly notify SGI of any results, innovations, inventions or discoveries that are conceived and reduced to practice in the performance of the Recipient Purpose, whether patentable or not (“Inventions”). Recipient shall grant SGI (i) a nonexclusive, worldwide, fully-paid, perpetual (except in case of material breach) license (with the right to grant sublicenses through multiple tiers) under all Inventions that are derived from, necessarily use or necessarily incorporate the Material, together with all patent and other intellectual property rights therein and thereto; and (ii) the first right of negotiation for an exclusive, worldwide, royalty-bearing license (with the right to grant sublicenses through multiple tiers) under any such Inventions (together with all patent and other intellectual property rights therein and thereto).

Recipient will provide (i) written notice to SGI prior to the submission of any patent application covering any Invention, along with copies of all draft patent applications and correspondence to and from the patent office; and (ii) good faith consideration to any comments or suggestions received from SGI regarding such patent applications and correspondence.

5. Subject to the terms and conditions of this Agreement, Recipient shall have the right to use data, information, discoveries, inventions and other results directly or indirectly derived from or relating to the use of the Material by Recipient for the Recipient Purpose, for its own internal, noncommercial, research purposes.

Recipient will use Material only for the Recipient Purpose and not for any other purpose. Commercial Purposes include the sale, lease, license, or other transfer of the Material or any part, progeny, modification or derivative thereof. Commercial Purposes shall also include uses of the Material or any part, progeny, modification or derivative thereof by any organization, including Recipient, to perform contract research or perform a service for a fee, 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 Material or any part, progeny, modification or derivative thereof. Recipient will not reverse engineer any of the Material.

6. Recipient will acknowledge SGI as the source of Material in publications or other presentations arising from Recipient's use of Material; provided, however, that Recipient shall not publish anything relating to the Material without review by SGI. Furthermore, the Recipient agrees to provide a report of the results generated from the use of the Material within thirty (30) days after completion of such Research Purpose or upon termination or expiration of this Agreement.

Should either party wish to publish or present work or results undertaken or obtained in connection with Recipient Purpose, such party will furnish the other parties with a copy of the manuscript, abstract or presentation disclosing such work or results prior to submission thereof not less than thirty days prior to publication. If Confidential Information (as defined in Section 11) of another party is identified in the proposed publication during such thirty (30) day period, such Confidential Information shall be immediately deleted. If the non-publishing parties have not responded within thirty (30) days after the publishing party provides the copy of the manuscript, abstract or presentation, then the publishing party may proceed with publication or disclosure without further delay. If patentable information is disclosed in the proposed publication, the submitting party will either delete such disclosure from the publication, or delay publication to allow a reasonable period of time to file a patent application; however, in no case shall a delay period last longer than ninety (90) days from submission to the other party. Each party shall acknowledge the other party(ies) in any publication in accordance with scientific custom, unless the other parties otherwise instructs. Notwithstanding the above, SGI shall not be required to request permission for publication or disclosure from Provider.

7. Recipient acknowledges that the Material is experimental and is provided to Recipient WITHOUT ANY WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT. Except as explicitly provided by this Agreement, no license or other rights (express or implied) are granted by SGI. The parties acknowledge that any results provided by Recipient from Recipient's performance under this Agreement are shared WITHOUT ANY WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.

8. Recipient agrees to waive all claims based on Recipient's gross negligence or intentional misconduct against SGI and/or Provider in connection with its use of Material, except as may be limited by any law or regulation governing Recipient. Recipient agrees to hold harmless SGI and/or Provider from all claims asserted by any third party and any damages arising from the use, storage, or handling of Material by Recipient except to

the extent any such claim involves gross negligence or intentional misconduct on the part of SGI and/or Provider, except as may be limited by any law or regulation governing Recipient.

9. This Agreement represents the entire understanding between the parties with respect to its subject matter and may only be changed in a writing signed by both parties. This Agreement is not assignable by Recipient; SGI may freely assign this Agreement and any of its rights and obligations hereunder. Each individual signing for a corporate entity hereby personally certifies his or her legal authority to bind that entity.

10. The term of this Agreement is for a period of one year. This Agreement may be terminated by either party by providing ten (10) days notice to the party in writing. Upon the completion of the Recipient Purpose, expiration or termination of this Agreement, Recipient shall destroy or return the Material as requested by SGI. If Recipient breaches this Agreement and does not cure such breach within ten (10) days of SGI's written notice, then Recipient agrees to immediately cease any use of the Material and all related information, at which time all of the Materials and any modifications, extracts and derivatives and related information provided by SGI or developed by Recipient or on Recipient's behalf will be provided to SGI or entirely destroyed at SGI's request. The provisions of Sections 4, 6, 7, 8, 9, 10 and 11 shall survive any expiration or termination of this Agreement.

11. All information disclosed by one party ("Disclosing Party") to the other party ("Receiving Party") clearly marked as confidential by Disclosing Party, or if not clearly marked, identified at the time of the disclosure as confidential by the Disclosing Party, (and in the case of SGI, including without limitation any extracts supplied by SGI which is related to Material that is supplied by SGI) ("Confidential Information"), and any of Disclosing Party's confidential information that is incorporated in information of the Receiving Party shall be deemed to belong to Disclosing Party, SGI and to have been disclosed or provided to Receiving Party in confidence. All parties agree to preserve the confidential status of the other parties' confidential information, and shall not be used or further disclosed to any third party for any purpose other than the Recipient Purpose, or otherwise expressly permitted herein. These confidentiality obligations do not apply to any information that:

- (i) was known to Receiving Party prior to the receipt from Disclosing Party or that is developed by Receiving Party independently of the Disclosing Party's confidential information, as shown by competent evidence;
- (ii) becomes known to the public not as a result of any action or inaction by Receiving Party;
- (iii) the Receiving Party acquires from a third party who has the right to disclose such information to Receiving Party without restriction; and
- (iv) the Receiving Party is required to disclose information by law, order or regulation of a governmental agency or a court of competent jurisdiction or international authority and has given Disclosing Party as much advance notice of the disclosure as is reasonably practicable, and reasonably cooperated with the Disclosing Party's lawful efforts to suppress or limit such disclosure.

*-Signature Page Follows-*

**Indiana University**

\_\_\_\_\_

Name:

Date: \_\_\_\_\_

Title:

**Synthetic Genomics, Inc.**

\_\_\_\_\_

Name:

Date: \_\_\_\_\_

Title:

**J. Craig Venter Institute**

\_\_\_\_\_

Name: Richard Scheuermann

Date: \_\_\_\_\_

Title: Campus Director

## Exhibit A

Description of Material: Bacterial strains JCVI-Syn3A, which is a derivative of the minimal bacterial cell JCVI-Syn3.0, which is a derivative of *Mycoplasma mycoides* subspecies capri strain GM12

Dr. Lennon will be using the JCVI-Syn3A bacterial strain in adapted laboratory evolution experiments done in collaboration with the JCVI.