

Official Rules of Participation

Mosaic Community

“Standards Challenge”

By clicking “I Agree”, you are entering into a legally binding agreement on behalf of your institution (“Participant”) with DNAnexus, Inc. (“DNAnexus”). Please note that these Official Rules supplement the terms that apply to Participant’s use of the Mosaic Platform generally and include material transfer terms that apply when Participant requests shipment of a sample kit.

- 1. Purpose of Mosaic Community Challenge: Standards (“Standards Challenge”).** The Standards Challenge is a collaborative, community effort to assess the reproducibility and accuracy of microbiome metagenomic measurements, and understand how different measurement practices contribute towards overall measurement bias. To achieve these objectives, DNAnexus is making available, in collaboration with The National Institute of Standards and Technology (“NIST”) and The BioCollective (“TBC”), a large number of sample kits (which include both bacterial DNA and human stool samples) to laboratories, companies and other institutions for sequencing and processing using their data generation pipelines. Once uploaded to the Mosaic Platform, this sequencing data (and corresponding protocol data) will be made available to eligible challenge participants for analysis and comparison and, ultimately, such data may be made freely available to the general public.
- 2. Legal Authority and Effect of Acceptance.** You represent and warrant that you have the legal authority to enter into these Official Rules of Participation for the Mosaic Community Challenge: Standards (“Official Rules”) on behalf of Participant and to bind Participant to all terms and condition of these Official Rules. By entering the Standards Challenge, Participant agrees to abide by the Official Rules in their entirety and to ensure compliance by any of its laboratories, employees, agents, contractors and other representatives who participate in the Standards Challenge on behalf of Participant.
- 3. Material Transfer.** As part of the Standards Challenge, DNAnexus is pleased to offer selected challenge participants, free of charge, sample kits containing (i) aliquot mixtures of purified genomic DNA derived from various strains of bacteria (“DNA Samples”) and (ii) fecal material from human donors (“Stool Samples”) for processing and sequencing (collectively, the “Samples”). These sample kits are being made available on the condition that challenge participants upload the resulting sequencing data and protocol metadata onto DNAnexus’ Mosaic Platform, where it will be accessible by all challenge participants for analysis and comparison with other participant data. Participant can request Samples through the Mosaic

Platform. By requesting the Samples, Participant agrees to the additional terms and conditions set forth in the Appendix below (“**MTA Terms**”), which are hereby incorporated by reference into these Official Rules. If you do not agree to the MTA Terms, do not request the Samples.

4. **Eligibility.** The Standards Challenge is open to any laboratory or other entity using next-generation sequencing based approaches to microbiome profiling, as well as other interested entities with computational expertise who can contribute to the assessment and understanding of variability stemming from different bioinformatics pipelines. DNAnexus may cap the total number of challenge participants and may in its discretion prioritize the entities performing sequencing over entities performing computational activities.
5. **Operation and Administration.** The Standards Challenge has received funding from Janssen Research and Development, LLC (“**Janssen**”) through the Janssen Human Microbiome Institute (“**JHMI**”) and is operated and administered by DNAnexus. DNAnexus is solely responsible for the maintenance and operation of the Mosaic Platform and the Standards Challenge.
6. **Term.** The Standards Challenge will begin on May 23, 2018 (“**Commencement Date**”) and ends 12 months thereafter (“**Completion Date**”). DNAnexus may, in its sole discretion, extend the Completion Date. Sections 2, 6, 8.d, 8.f, and 9-12 will survive termination of these Official Rules and conclusion of the Standards Challenge.
7. **Disqualification.** DNAnexus reserve the right, in its sole discretion and without advance notice, to disqualify from the Standards Challenge any person or entity it believes to have intentionally violated these Official Rules, or to be acting in an inappropriate, disruptive or otherwise harmful manner, or to have tampered with any element of the Mosaic Platform or otherwise negatively impacted the overall progress or administration of the Standards Challenge. Disqualification may result in being denied further access to the Mosaic Platform and/or to the sequencing and other data made available to challenge participants (including data previously uploaded by Participant).
8. **Participant Guidelines.** Participant agrees to the following:
 - a) Use the resources provided by DNAnexus in support of the Standards Challenge, including any dedicated Mosaic Platform account and/or workspace, for the purposes of the Standards Challenge only. Participant is strictly prohibited from using the Mosaic Platform for any other purpose unless Participant has separate rights or authorizations from DNAnexus.
 - b) Make reasonable efforts to submit comments and feedback on the community forum.
 - c) Not to misrepresent its identity (e.g., by using the option to submit under a different name) when submitting any data to Mosaic Platform, although Participant is permitted to use any anonymization options made available at the time of submission.
 - d) Not to attempt to discover the source of any data designated as anonymously submitted.
 - e) Not to intentionally submit inaccurate, incomplete or misleading data.

- f) DNAnexus reserves the right, in its sole discretion, to remove any data or other submissions of any participant it believes intentionally violated the Official Rules or were not otherwise submitted in good faith, or which DNAnexus reasonably believes to be inaccurate, incomplete or misleading (whether intentional or not), or which do not otherwise serve to advance the objectives of the Standards Challenge.

9. Data Availability. At the end of the Standards Challenge, DNAnexus may, at its sole discretion, limit Participant's ability to access or use any Mosaic Platform account or workspace created for the purposes of the Standards Challenge. Upon notice that the Standards Challenge has ended, and unless expressly permitted by DNAnexus in writing, Participant agrees to cease uploading any new data or executing any functions within a Mosaic Platform workspace dedicated to the Standards Challenge. DNAnexus reserves the right to delete data in Standards Challenge workspaces 6 months after the conclusion of the Standards Challenge.

10. Intellectual Property; Publication

- 10.1.** Participant grants to DNAnexus, JHMI, other challenge participants and their respective affiliates a non-exclusive, irrevocable, perpetual, fully paid and royalty-free worldwide right and license, including the right to sublicense, to use, publish and otherwise exploit any submitted data for any and all purposes. Participant acknowledges and agrees that it will have no interest, economic or otherwise, in any invention, discovery, product or other technology (including protocol enhancements) developed by DNAnexus, JHMI, other challenge participants or their respective affiliates, or any other party and arising directly or indirectly from the use of Participant's submitted data.
- 10.2.** Participant acknowledges and agrees that any data submitted by Participant may be made generally available to the public (including freely accessible to the public for downloading or for analysis on Mosaic Platform) at any time.
- 10.3.** DNAnexus, JHMI, other challenge participants and their respective affiliates may publish any data submitted by Participant and any findings from the analysis of such data, including as part of a journal article or other publication, without the written consent of Participant.
- 10.4.** Participant may publish any data, findings and analyses pertaining to the Standards Challenge provided that it first notifies DNAnexus and cooperates with DNAnexus to ensure the proper acknowledgments, citations and references are included. Participant agrees to acknowledge TBC and NIST as the source of the Stool Samples and DNA Samples, respectively, and the Mosaic Platform by DNAnexus as the analytics platform, in any publication pertaining to the Standards Challenge or Participant's involvement with or results and findings from the Standards Challenge.

11. Disclaimer of Warranties. THE MOSAIC PLATFORM AND ALL DATA MADE AVAILABLE ON OR THROUGH THE MOSAIC PLATFORM IS BEING SUPPLIED TO PARTICIPANT FOR THE PURPOSES OF THE STANDARDS CHALLENGE ONLY AND IS PROVIDED "AS IS" WITH NO WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY

WARRANTY OF TITLE, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE MOSAIC PLATFORM OR ANY DATA MADE AVAILABLE ON OR THROUGH THE MOSAIC PLATFORM WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHTS.

12. Release by Participant; Limitation of Liability. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, PARTICIPANT HEREBY UNCONDITIONALLY AND FOREVER RELEASES AND DISCHARGES DNANEXUS, JANSSEN, JHMI, TBC AND NIST AND THEIR RESPECTIVE AFFILIATES, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, REPRESENTATIVES, SUCCESSORS AND ASSIGNS (COLLECTIVELY “**RELEASED PARTIES**”), FROM ALL CLAIMS BASED ON OR ARISING FROM PARTICIPANT’S PARTICIPATION IN THE STANDARDS CHALLENGE (INCLUDING USE OF ANY SAMPLES, DATA AND OTHER MATERIALS PROVIDED OR MADE AVAILABLE IN CONNECTION WITH THE STANDARDS CHALLENGE OR USE OF THE MOSAIC PLATFORM) AND ANY AND ALL RELATED JUDGMENTS, COSTS, DAMAGES, LOSSES, EXPENSES AND LIABILITIES WHETHER ARISING UNDER A THEORY OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER THEORY (COLLECTIVELY “**RELEASED CLAIMS**”). TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, PARTICIPANT ACKNOWLEDGES AND AGREES THAT THIS RELEASE WILL PREVENT PARTICIPANT AND ITS SUCCESSORS FROM BRINGING A LAWSUIT, CLAIM OR OTHER ACTION AGAINST ANY RELEASED PARTY AND FROM RECOVERING ANY MONEY DAMAGES OR OTHER LEGAL RELIEF FROM ANY RELEASED PARTY IN CONNECTION WITH ANY OF THE RELEASED CLAIMS. IN ANY EVENT, THE MAXIMUM AGGREGATE LIABILITY OF THE RELEASED PARTIES IN CONNECTION WITH THESE OFFICIAL RULES OR THE STANDARDS CHALLENGE WILL NOT EXCEED THE LARGER OF \$100 OR THE MINIMUM AMOUNT PERMITTED UNDER APPLICABLE LAW.

13. Comments. For questions or concerns, email info@mosaicbiome.com

Participant acknowledges and agrees that its acceptance of these Official Rules is a material inducement for allowing Participant to participate in the Standards Challenge and that the Released Parties would not do so in the absence of such agreement.

Appendix

Additional Terms and Conditions Pertaining to Receipt and Use of the Samples

1. Sequencing and Data Sharing Requirement. Participant will, within a reasonable period of time following receipt of the Samples, (a) process and sequence the Samples using Participant's own sequencing protocol(s), and (b) upload the resulting raw sequencing data together with the protocol metadata (collectively, "**Participant Data**") to the Mosaic Platform. Participant will use commercially reasonable efforts to ensure that all uploaded data is accurate, complete and timely. Participant will not knowingly input inaccurate, misleading or incomplete data into the Mosaic Platform. Participant acknowledges and agrees that the sequencing and data sharing obligations set forth in this Section 1 are critical to the success of the Standards Challenge and form the basis of DNAnexus' offer to supply the Samples to Participant and to absorb all costs pertaining to the preparation and shipment thereof. Without limiting any other remedy available under these Official Rules or under law, DNAnexus reserves the right to disqualify from the Standards Challenge any Participant who does not perform the obligations set forth in this Section 1. In addition, DNAnexus reserves the right to make certain functionality and/or data available only to those challenge participants who complete all required field entries when submitting protocol information.
2. Identification of Participant. By uploading data to the Mosaic Platform, Participant permits DNAnexus to identify Participant as the source of such data. DNAnexus recognizes, however, that there may be limited circumstances in which Participant may wish to submit certain Participant Data anonymously. If this option is made available to Participant, and anonymous submission is selected at the time of upload, DNAnexus will not make Participant's identity available to other challenge participants in connection with the relevant data (however, DNAnexus may continue to track and store Participant's identity for internal use and data management purposes).
3. Use of Samples and Data. Participant may not provide any third party with access to the Samples. Participant will use the Samples solely for the purpose of the Standards Challenge and in compliance with all applicable laws and regulations. No commercial use of the Samples is permitted and Participant may not redistribute the Samples. For clarity, these limitations on use of the Samples do not extend to data produced by challenge participants from sequencing the Samples as permitted by the Standards Challenge, which data may be used by Participant for any purpose.
4. Preparation and Shipping. NIST is responsible for preparing the DNA Samples and TBC is responsible for preparing the Stool Samples. TBC will ship all Samples directly to the address indicated by Participant when requesting the Samples. Participant's sole remedy in the event it does not receive a sample kit or if the sample kit is incomplete or unusable is to contact DNAnexus and request another shipment.
5. Availability of Samples. DNAnexus will evaluate Sample requests and notify those parties that have been selected to receive Samples. DNAnexus has a finite supply of sample kits and therefore makes no guarantee that Samples will be available when requested. DNAnexus further reserves the right to deny the Samples to any Participant for any reason, and may decline to fulfill shipment requests (or additional shipment requests) at its discretion.
6. Donor Privacy. With respect to the Stool Samples, Participants will have no access to donor names or other personal identifiers. Participants are strictly prohibited from attempting to

identify and from contacting any donors. All access to donors for clarification or other reasons must be submitted to DNAexus who will review the request with TBC.

7. Nature of Samples and Indemnification. Participant acknowledges and agrees that (a) the Samples may have biological and/or chemical properties that are unpredictable and unknown and should be used with caution and prudence, (b) the Stool Samples originated from people and may have infectious and hazardous properties, (c) all personnel to whom it provides access to the Samples are adequately skilled in the precautions that should be used in working with human-derived material. Participant agrees to indemnify and hold harmless the Released Parties (as defined above) from any and all liability that may arise from receipt, use, storage and disposal of the Samples by or on behalf of Participant. PARTICIPANT WILL NOT USE THE SAMPLES IN OR TO TREAT HUMAN SUBJECTS (E.G., FOR CLINICAL OR DIAGNOSTIC PURPOSES).
8. Disposal of Samples. Upon completion of the Standards Challenge or termination of these Official Rules, and except as otherwise required by applicable law or regulation, Participant will return or destroy the Samples and, upon request, certify to DNAexus the return or destruction thereof.
9. Intellectual Property.
 - 9.1. Samples. To the extent any intellectual property rights exist in the Samples and DNAexus has a license to such rights, DNAexus, as licensee, hereby grants Participant a non-exclusive, non-transferable, non-sublicensable, royalty-free sublicense to use the Samples solely for the purpose of the Standards Challenge. Both NIST and TBC have granted DNAexus such a license to the Samples for the purposes of the Standards Challenge.
 - 9.2. Participant Data. Without limiting Section 10 of the main text of the Official Rules and for clarity, to the extent Participant has any intellectual property rights or other proprietary interest in or to Participant Data, Participant hereby grants DNAexus, JHMI and other challenge participants a worldwide, perpetual, non-exclusive, sublicensable, royalty-free right and license to use the Participant Data for any purpose. Participant acknowledges and agrees that it has no claim of ownership or other interest in any data generated by DNAexus, JHMI, challenge participants or any other party from Participant Data, nor in any inventions or discoveries (or intellectual property rights therein) developed or derived from Participant Data by DNAexus, JHMI, challenge participants or any other party.
10. Disclaimer of Warranties. THE SAMPLES ARE BEING SUPPLIED TO PARTICIPANT FOR RESEARCH AND EXPERIMENTAL USE ONLY AND IS PROVIDED "AS IS" WITH NO WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF TITLE, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE TRANSFERRED MATERIAL WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHTS.
11. Third Party Beneficiaries. Janssen, TBC and NIST are intended third-party beneficiaries of the terms set forth in this Appendix.
12. Survival. Sections 2, 3, and 6-12 of this Appendix will survive termination of the Official Rules or completion of the Standards Challenge.