

MATERIALS TRANSFER AGREEMENT

Provider:

U.S. Environmental Protection Agency (EPA)
Office of Research and Development (ORD)
Center for Computational Toxicology and Exposure (CCTE)

Recipient:

University of Utah
615 Arapahoe Drive, Suite 310
Salt Lake City, UT 84108

1a. Provider agrees to transfer to Recipient's Investigator named below the following Research Material:

Chemicals and Materials

- A list identifying selected chemicals from the ToxCast chemical library to be tested by Yijie Geng (“Recipient Investigator”).
- A copy of the current ToxCast chemical library, or subset, consisting of chemical samples prepared as solution in dimethyl sulfoxide at a concentration of 20 millimolar. Additional chemicals may be provided in the future concurrent with expansion of the ToxCast chemical library.
- Samples of nanomaterials and characterization data on said materials.

Data and Summary Information

- In vitro assay data derived from the ToxCast Program. This data is derived from chemicals analyzed using a variety of high throughput assay techniques. Below this is referred to as the “ToxCast Data”.
- There In vivo whole animal toxicology data summary data derived from the EPA Toxicology Reference Database (ToxRefDB). Below this is referred to as the “ToxRefDB Data”.
- Summary descriptions of the individual data sets.
- Individual subsets of this data will be delivered to XXX after they have been prepared for use at EPA and cleared for release to XXXX.

1b. The Recipient agrees to transfer to the EPA Investigator named below the following:

- All data or data summaries resulting from chemical screening performed on the ToxCast chemical library to Jeanene Olin (“EPA Investigator”).
- Results of any data analyses that include use of provided ToxCast or ToxRef data.
- There Relevant data on these chemicals from non-public sources.
- Unique chemicals for the ToxCast chemical library and subsequent testing by EPA.

2. This Research Material may not be used in human subjects. The Research Material will be used only for research purposes by Recipient's investigator in his/her laboratory, for the research project described below, under suitable containment conditions. This Research Material will not be used for screening, production or sale, for which a commercialization license may be required. Recipient agrees to comply with all Federal rules and regulations applicable to the Research Project and the handling of the Research Material.

EPA ONLY: If the data or material that are being transferred constitute human subjects research, please visit the following intranet site to determine if your project needs review and approval by the HSRRO: <http://intranet.ord.epa.gov/p2/hsr/human-subjects-review>

There is no Human Subjects material being used in this research.

Research Plan reviewed and approval by HSRRO:

Name _____ Date __/__/____

3. If the data or material that are being transferred involve life sciences research, or more specifically any of the select agents or toxins listed and/or the definitions provided in EPA Order 1000.19 *Policy and Procedures for Managing Dual Use Research of Concern*, then Principal Investigators should consult EPA's Institutional Contact for Dual Use Research of Concern (ICDUR) at DURC@epa.gov before completing the following section. If not, then check the first box below.

This research does not meet any of the definitions of Dual Use Research of Concern (DURC) and no additional review or oversight are required. The PI must report to the ICDUR any results or changes in the research that meet any of the definitions of DURC.

This research meets one or more definitions of DURC and requires additional oversight under the *USG Policy for Institutional Oversight of DURC*. The parties to this Agreement are required to comply with EPA Order 1000.19, *Policy and Procedures for Managing Dual Use Research of Concern*.

For information about DURC and EPA Order 1000.19, please visit:

<http://intranet.ord.epa.gov/homeland-security/dual-use-research-concern-durc-policies>

4. This Research Material will be used by Recipient's investigator solely in connection with the following research project ("Research Project") described with specificity as follows (*insert description here or use an attachment page if necessary*):

The research project involves exposing zebrafish embryos to ToxCast Chemicals and assessing behavior to identify compounds that negatively affect social behavior development. In parallel, the research project will identify ToxCast compounds that possess Top2-inhibiting activities and examine Top2's role in social behavior development and potentially reveal new pathways related

to social behavior development. To accomplish the research project goals the Recipient shall screen the ToxCast chemical library using the established zebrafish behavioral screening model to discover chemicals that contribute to autism risk. The research is expected to discover new chemicals and pathways that influence social behavior development and likely reveal new chemical risk factors for autism and possibly reveal novel therapeutic targets to prevent or treat autism. The Research Material is to be used solely for teaching and academic research purposes to perform the described Research Project, in accordance with Recipient's policies for research involving biological materials.

5. In all oral presentations or written publications concerning the Research Project, Recipient will acknowledge Provider's contribution of this Research Material unless requested otherwise.

To the extent permitted by law, Recipient agrees to treat as confidential and to protect from unauthorized disclosure, information claimed by Provider as confidential information. Provider will clearly and plainly mark as "CONFIDENTIAL" any written information it submits to Recipient as part of the Research Project and that it wishes to be treated in accordance with the terms of this agreement. If Provider discloses information to Recipient which Provider orally claims as confidential information, Provider will promptly notify Recipient in writing if it wants such information treated as confidential information.

Recipient may publish or otherwise publicly disclose the results of the Research Project, but if Provider has given claimed confidential information to Recipient, such public disclosure may be made only after Provider has had thirty (30) days to review the proposed disclosure to determine if it includes any claimed confidential information, to the extent such review period is permitted by law.

6. This Research Material represents a significant investment on the part of Provider and is considered proprietary to Provider. Recipient's investigator therefore agrees to retain control over this Research Material and further agrees not to transfer the Research Material to other people not under his/her direct supervision without advance written approval of Provider. Provider reserves the right to distribute the Research Material to others and to use it for its own purposes. When the Research Project is completed, the Research Material will be returned to the Provider or disposed, if directed by Provider.

7. This Research Material is provided as a service to the research community. It is being supplied to Recipient with no warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose. Provider makes no representations that the use of the Research Material will not infringe any patent or proprietary rights of third parties.

8. Recipient shall retain title to any patent or other intellectual property rights in inventions made by its employees in the course of the Research Project. However, if said inventions contain any portion of the Research Material, are derived from the Research Material, or could not have been

produced but for the use of the Research Material, Recipient agrees to contact the Provider to determine what ownership interests, if any, the Provider may have, and, where applicable, to negotiate in good faith the terms of a commercial license. Inventorship for a patent application or a commercialized product based on said inventions shall be determined according to United States patent law.

9. When Provider is the EPA: Recipient agrees not to claim, infer, or imply endorsement by the Government of the United States of America (hereinafter referred to as "Government") of the Research Project, the institution, or personnel conducting the Research Project or any resulting product(s). Recipient agrees to hold the Government harmless and to indemnify the Government for all liabilities, demands, damages, expenses, and losses arising out of Recipient's use for any purpose of the Research Material, to the extent permitted by law.

10. When Recipient is the EPA: Provider will not be liable to EPA for any claims or damages arising from EPA's use of the Research Material.

11. The Provider shall have the right to terminate this Agreement at any time if Recipient breaches any of the terms of this Agreement. Upon termination, Recipient shall return to the Provider all unused portions of the Research Materials.

12. Will EPA develop any products or services from information or materials provided by the Recipient?

Yes – go to item A

No – skip to #13 (next clause)

Item A: The EPA laboratory must coordinate on matters related to Quality Assurance with their QA Specialist.

If necessary, the Laboratory will develop/has developed a Quality Assurance Plan in coordination with the Quality Assurance Specialist.

No QA requirements are needed.

13. All notices pertaining to or required by this Agreement shall be in writing and shall be signed by an authorized representative and shall be delivered by hand (including private courier mail service) or sent by certified mail, return receipt requested, with postage prepaid, addressed as follows:

Provider's Contact Information:

Russell Thomas, Ph.D.

U.S. EPA Center for Computational Toxicology and Exposure
109 T.W. Alexander (MD-D143-02)
Research Triangle Park, NC 27711
919.541.5776
thomas.russell@epa.gov

With a copy to:
Samantha Plishka
U.S. EPA Center for Computational Toxicology and Exposure
109 T.W. Alexander
Research Triangle Park, NC 27711
919-541-2657
Plishka.Samantha@epa.gov

For commercial courier address use:
4930 Old Page Road
Durham, NC 27703

AND

Kathleen Graham
FTTA Program Coordinator
Graham.kathleen@epa.gov
(303) 312-6137
FTTA@epa.gov

Recipient Investigator's Contact Information:

Yijie Geng
University of Utah College of Pharmacy
30 South 2000 East
Salt Lake City, UT 84112
801-581-6312
yijie.geng@pharm.utah.edu

With a copy to:

Eric S. Paulsen, Sr. Manager, Contracts
University of Utah
615 Arapeen Drive, Suite 310
Salt Lake City, UT 84108
e.paulsen@utah.edu

14. Paragraphs 2, 5, 7, 8, 9, and 10 shall survive termination.

15. The undersigned Provider and Recipient expressly certify and affirm that the contents of any statements made herein are truthful and accurate.

16. This agreement shall enter into force as of the date of the last signature of the parties and shall remain in effect for one (1) year from said date.

SIGNATURES

FOR THE RECIPIENT:

Principal Investigator

Yijie Geng, PhD
Research Fellow, Randall Peterson lab
yijie.geng@pharm.utah.edu

7/13/_____
Date

Authorized Representative of Institution

Eric S. Paulsen
Sr. Manager, Contracts
e.paulsen@utah.edu

7/13/2021_____
Date

FOR THE PROVIDER:

Principal Investigator

Jeanene Olin
Biologist
Olin.Jeanene@epa.gov

Date

Authorized Representative of Institution

Russell Thomas, Ph.D.
Director, EPA/ORD/CCTE
Model EPA MTA-CCTE 8-19-20

Date