MATERIALS TRANSFER AGREEMENT

Provider:
U.S. Environmental Protection Agency (EPA)
Office of Research and Development (ORD)
National Center for Computational Toxicology (NCCT)

Recipient:
Clene Nanomedicine, Inc.
3165 East Millrock Drive, Suite 325
Salt Lake City, Utah 84121

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 evaluated by Michael Hotchkin ("Recipient Investigator") at Recipient.
- ☒ 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".

2. This Research Material may not be used in human subjects. The Research Material will be used only for research purposes by Recipient 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.

3. Does the Research Material include specimens or data derived or collected from human subjects?
_____ Yes – Go to item #3(a).
__x___ No – Skip to item #4.

3(a). Does the Research Material include specimens or data derived or collected from fetuses, children, pregnant women, or nursing women?
_____ Yes
_____ No

3(b). Was the Research Material obtained under a protocol that was reviewed and approved by an Institutional Review Board (IRB) that operated in accordance with the requirements of EPA Regulation 40 CFR 26, HHS Regulation 45 CFR 46, or any other Federal Regulation for the protection of human research subjects?
_____ Yes (Please indicate the applicable Regulation here _____ and provide copies of the protocol and IRB approval documents.)
_____ No (Please provide explanation with documentary support as appropriate.)

3(c). Can the Provider of the Research Material identify the subjects directly or through identifiers (codes) linked to the subjects?
_____ Yes – The Recipient's use of the Research Material may be human subject's research subject to 40 CFR 26. Go to item #3(d).
_____ No – The Recipient's use of the Research Material is not human subjects research subject to 40 CFR 26. Skip to item #4.

3(d). Is the Provider of the Research Material prohibited by this agreement from releasing information to the Recipient that might allow the identification of any of the subjects, including but not limited to the key to any existing code?
_____ Yes – The Recipient's use of the Research Material is not human subjects research subject to 40 CFR 26. Skip to item #4.
_____ No – The Recipient's use of the Research Material may be human subjects research subject to 40 CFR 26. Go to item #3(e).

3(e). Is the Research Material publicly available?
_____ Yes – The Recipient's use of the Research Material is human subjects research that is exempt from 40 CFR 26.
_____ No – The Recipient's use of the Research Material is human subjects research that may be subject to 40 CFR 26 and must be further evaluated accordingly by the EPA Human Subjects Review Official.

4. This Research Material will be used by Recipient Investigator solely in connection with the following research project ("Research Project") described with specificity as follows

Clene Nanomedicine Inc. (Clene) is a biopharmaceutical company focused on the development of novel drugs for autoimmune disorders and oncology. Clene's lead drug, CNM-Au8, is an oral suspension of pure gold nanocrystals developed without the chemical reduction of chloroauric acid (HAuCl4) to colloidal gold.

As part of the ToxCast program, a 10 nM, citrate-reduced colloidal gold suspension from BBI Solutions was profiled in eight systems within the BioMAP Diversity PLUS™ Panel at varying concentrations.

According to the Discovery Rx Corporation, the BioMAP Diversity PLUS Panel consists of 12 BioMAP Systems containing early passage primary human cell types from multiple tissues that represent a broad range of human biology relevant to multiple therapeutic areas. Cells are cultured alone or as co-cultures and stimulated with a combination of factors (e.g. cytokines, growth factors, mediators, etc.) to recapitulate the multi-component signaling networks associated with disease states. Compounds are interrogated in these complex biological systems to determine their phenotypic impact on physiologically relevant disease biology in terms of efficacy and safety.

Portions the data from the citrate-reduced colloidal gold suspension evaluated by EPA were presented as an abstract (WANG, A., et al. Nanomaterial (NM) bioactivity profiling by ToxCast high-throughput screening (HTS). Presented at The Society of Toxicology (SOT) 51st Annual Meeting and ToxExpo 2012, Moscone Convention Center,San Francisco, CA, March 11 - 15, 2012).

Clene recently completed an assessment of CNM-Au8 using the same BioMAP Diversity PLUS Panel. Subsequently, Clene has learned EPA had reviewed a colloidal gold suspension and that there were significant differences between the results for CNM-Au8 when contrasted to the BBI Au nanosuspension evaluated in the ToxCast program. Notably, the Pearson's correlation between the two compounds was not sufficiently similar ($p<0.7$) to indicate biological similarities, thereby suggesting distinctly different profiles within the BioMAP Diversity PLUS assay.

The objective of the Research Project is to identify key differences between the respective profiles of CNM-Au8 and the BBI gold nanosuspension profiled by EPA through the ToxCast program.

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, any of Provider's written information about this Research Material that is stamped "CONFIDENTIAL" for a period of three (3) years from the date of its disclosure to recipient. The foregoing shall not apply to information, (a) that is or becomes publicly available, (b) was properly known by Recipient, without restriction, prior to disclosure by Provider, (c) was properly disclosed to Recipient by another person without restriction, or (d) which is disclosed to Recipient without a confidentiality obligation. Any oral disclosures from Provider to Recipient which Provider wishes to be treated as confidential shall be identified as being Confidential at the time of the disclosure and by written notice delivered to Recipient within thirty (30) days after the date of the oral disclosure. Recipient may disclose the results of the Research Project to its responsible employees, contractors, investors, and potential investors, provided that each such individuals are bound by confidentiality obligations at least as protective as the restrictions contained herein.

Recipient may publish or otherwise publicly disclose the results of the Research Project, but if Provider has given 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 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 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.

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

__x__ No – skip to #13 (next clause)

Item A: The EPA has a long history of applying principles of quality assurance/quality control to all technical work conducted by or for the Agency (CIO 2106: USEPA Quality Policy). Given EPA is receiving metabolomics and screening data and will use the metabolomics and screening data for Agency purposes, the Recipient is required to provide EPA with documentation such as a quality manual, describing their organization's quality system. In lieu of such documentation, Standard Operating Protocols for compound handling and the assays performed are acceptable or documentation showing third party accreditation to a relevant standard and scope is also acceptable for documenting an organization's quality system. EPA requirements for quality management plans can be found at this URL:
http://www.epa.gov/quality/qa_docs.html

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.
National Center for Computational Toxicology (NCCT)
US EPA
109 TW Alexander (MD-D143-02)
Research Triangle Park, NC 27711
Tel: 919-541-5776
Thomas.russell@epa.gov

With a copy to:

Sandra Roberts
National Center for Computational Toxicology (NCCT)
US EPA
109 TW Alexander (MD-D143-02)
Research Triangle Park, NC 27711
919-541-3850
Roberts.sandra@epa.gov

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

Recipient's Contact Information:
Michael Hotchkin
Clene Nanomedicine, Inc.
3165 East Millrock Drive, Suite 325
Salt Lake City, Utah 84121
michael.hotchkin@clenenanomedicine.com
(801) 676-9695

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

15. This Agreement shall be construed in accordance with law as applied by the Federal courts in the District of Columbia.

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

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

Any false or misleading statements made, presented, or submitted to the Government, including any material omissions, under this Agreement and during the course of negotiation of this Agreement are subject to all applicable civil and criminal statutes including 31 U.S.C. ' ' 3801-3812 (civil liability), 18 U.S.C. ' 1001 (criminal liability), and 31 U.S.C. ' ' 3729-33 (False Claims Act).