

MATERIAL TRANSFER AGREEMENT

This Agreement is entered into by and between Hoffmann-La Roche Inc., a New Jersey corporation with an office and place of business at 340 Kingsland Street, Nutley, New Jersey 07110 (hereinafter referred to as "Roche"); and U.S. Environmental Protection Agency, Office of Research and Development, National Center for Computational Toxicology located at 109 T.W. Alexander Drive, Research Triangle, Park 27711 (hereinafter referred to as "EPA").

WHEREAS, Roche possesses certain Roche compounds as described on Exhibit A ("Material"), attached hereto and made a part of this Agreement; and

WHEREAS, EPA wants to use the Material in its research activities relating to the ToxCast™ Program as such research activities are described in Exhibit B, attached hereto and made a part of this Agreement ("Testing"); and

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, the parties agree as follows:

1. Roche shall supply EPA with Material and related information for the Testing, free of charge. Roche shall pay for all expenses relating to the shipment of the Material. EPA shall only use the Material for the Testing and under no circumstances shall EPA use the Material in humans or for commercial purposes. Without limitation, EPA shall not chemically or biologically modify the Material. The parties acknowledge that the Material is the property of Roche.
2. EPA shall only distribute the Material and disclose information relating to the Material to those individuals at EPA that have a need to know about the Material for the Testing. EPA shall not supply the Material or disclose any information relating to the Material to any third party without the prior written consent of Roche or if required by law. At Roche's request and as allowed by law, EPA shall return to Roche all of the Material and data generated from the Testing.
3. EPA shall promptly inform Roche about the results of the Testing. EPA shall not use such results and conclusions to file any patent applications that claim the manufacture, use or sale of the Material. EPA shall conduct a quality review of the results of the Testing and calculate AC50 values using established statistical processes and approaches. Following such review EPA shall provide Roche with electronic files of the assay results of Roche Material (individual concentration response data and AC50 values) generated from the Roche Material ("Roche ToxCast Phase II Data"); provided that Roche has provided to EPA relevant pre-clinical/clinical toxicological data for the Material. Such Roche ToxCast Phase II Data shall become the property of both Roche and EPA.
4. For a period of five (5) years from the date of this Agreement, EPA shall not disclose to any third party, without the written consent of Roche, any data, know-

how or other information disclosed to EPA by or on behalf of Roche relating to the Material or Testing provided that such data, know-how or other information is marked "Confidential"(collectively "Information"). Any oral disclosures that Roche provides to EPA that Roche wishes to be treated as confidential shall be identified as "confidential at the time of disclosure and followed by subsequent written notice no later than thirty (30) days after the date of the oral disclosure. EPA shall be relieved of any and all obligations under Paragraph 4 of this Agreement regarding Information which:

- (a) was known to EPA prior to receipt hereunder;
- (b) is generated by EPA by persons who have not had access to or knowledge of the Information disclosed hereunder;
- (c) at the time of disclosure by Roche to EPA, was generally available to the public, or which after disclosure hereunder becomes generally available to the public through no fault attributable to EPA;
- (d) is hereafter made available to EPA for use or disclosure by EPA from any third party having a right to do so; or
- (e) is required to be disclosed pursuant to a judicial or governmental order, provided that EPA gives Roche sufficient notice to permit Roche to seek a protective order or other similar order with respect to such Information.

Disclosures made under this Agreement which are specific in nature shall not be deemed to be within the foregoing exceptions merely because they are embraced by more general information in the public domain or in the possession of EPA.

- 5. Upon the request of Roche, EPA shall return or destroy all copies of the Information, provided that EPA may retain one copy of the Information in its files for archival purposes.
- 6. In all oral presentations or written publications concerning the Testing, EPA will acknowledge Roche's contribution of Material, if used, unless requested otherwise. . EPA may publish or otherwise publicly disclose the results of the Testing. To the extent allowed by law, before EPA first publishes or otherwise publicly discloses the results of the Testing, EPA will provide Roche forty-five (45) days to review the proposed disclosure to determine if it includes any Information. Upon the request of Roche, EPA shall remove from the results of the Testing any Roche Information or any information relating to the intellectual property rights pertaining to the Material supplied to EPA or any information relating to patentable items that Roche has ownership rights to as defined in Paragraph 7 below. At the end of the review period and following the removal of any such information, EPA will be free to publish the results of the Testing

without further review. If the proposed disclosure contains information that the Roche determines may disclose patentable inventions, EPA will extend the review period an additional sixty (days) to allow for filing of patent applications. EPA shall notify Roche of the timeline for the public release of the ToxCast data and prior to distribution provide copies of press releases containing information on the Roche Toxcast Phase II Data..

7. Any invention resulting from the Testing and involving a new use, improvement, formulation or enhancement of the Material, whether or not patentable shall be disclosed promptly to Roche to allow the parties to determine ownership rights in the invention in accordance with US patent law. Otherwise: (a) any invention, whether or not patentable, resulting from performance of the Testing (collectively "Invention") which is conceived solely by EPA shall be owned solely by EPA; (b) any Invention conceived jointly by Roche and EPA shall be owned jointly by the parties; and (c) any Invention conceived solely by Roche shall be owned solely by Roche. Roche shall have a non-exclusive, royalty free, worldwide, right to any Invention conceived by EPA, for Roche's own internal purposes and for the manufacture, use, importation or sale of the Material (or any other product made using the Material) by Roche or any customer or affiliate of Roche.
8. EPA ACKNOWLEDGES THAT THE MATERIAL IS BEING SUPPLIED TO EPA WITH NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR WARRANTY AGAINST INFRINGEMENT.
9. In no event shall Roche be liable for any use of the Material by EPA. Any liability of EPA arising out of or resulting from EPA's performance under this Agreement will be subject to the Federal Tort Claims Act, 28 U.S.C. §§ 1346 and 2671, et. seq.
10. Nothing herein shall be construed as giving EPA any license, right, title, interest in or ownership to the Material or Information or granting any license or right under any intellectual property rights.
11. Each party agrees to comply with all applicable laws, regulations and guidelines in connection with its performance under this Agreement.
12. Either party's failure to require the other party to comply with any provision of this Agreement shall not be deemed a waiver of such provision or any other provision of this Agreement.
13. Neither party may assign this Agreement without the prior written consent of the other party.
14. This Agreement shall constitute the entire understanding between the parties with respect to the subject matter hereof and may only be modified in writing

EXHIBIT A
ROCHE MATERIALS

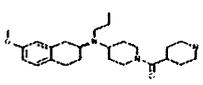
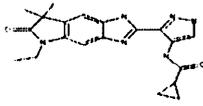
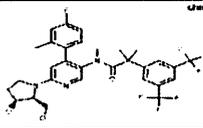
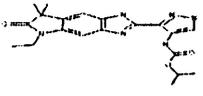
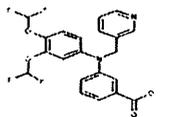
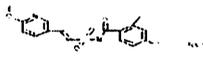
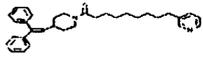
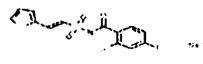
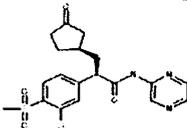
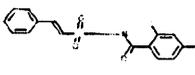
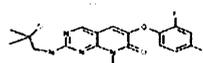
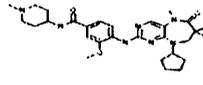
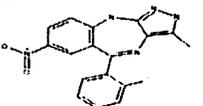
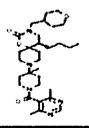
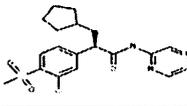
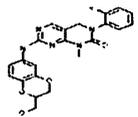
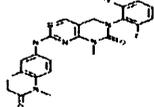
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	RO98744		RO44681
	RO37637		RO68633
<small>Chiral</small> 	RO89620		RO99341
	RO08967		RO03280
	RO74406	<small>Chiral</small> 	RO15657
<small>Chiral</small> 	RO05082		
	RO03297		
	RO07023		
	RO93264		

EXHIBIT B

ToxCast Research Description

EPA launched the ToxCast research project in 2007 to develop ways to predict potential toxicity and to develop a cost-effective approach for prioritizing the thousands of chemicals that need toxicity testing. ToxCast uses advanced science tools to help understand how human biological processes are impacted by exposures to chemicals and helps determine which exposures are most likely to lead to adverse health effects. It includes over 500 high-throughput assays that are screening 1,000 environmental chemicals for potential toxicity. Phase I, "Proof of Concept", was completed in 2009 and it profiled over 300 well studied chemicals (primarily pesticides). Phase II is currently screening 1,000 chemicals (including screening Phase I again) from a broad range of sources including industrial and consumer products, food additives and drugs from pharmaceutical companies that never made it to the market to evaluate the predictive toxicity signatures developed in Phase I. The compounds and associated pre-clinical and clinical data provided by Roche will be added to chemical library that ToxCast is screening. Results from the ToxCast high-throughput screening will be compared to the pre-clinical and clinical data to assess how well a combination of ToxCast assays can predict potential toxicity that is relevant to humans. ToxCast will screen Roche compounds in the assays provided by EPA contractors. Examples of EPA assay contractors are listed below.

Examples of EPA assay contractors

ACEA: Real-time Cell Electronic Sensing

Appredica

Attagene: Transcription factor assays

BioSeek: Cell-based protein level assays

Cellumen: Cell imaging assays

CellzDirect: Transcription assays

Gentronix: GreenScreen GeneTox assay

NCGC: Nuclear receptor assays

Novascreen / Caliper : Receptor binding and enzyme inhibition assays

Odyssey Thera: High-content assays based on contextual Protein-fragment

Complementation Assay (PCA) technology, and a supporting platform captures and analyzes microscopic images

Solidus: P450 vs. cytotoxicity assays

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