



Draft Agenda

Workshop: BioMed21 – A Human Pathways Approach to Disease Research

Co-organized by the National Toxicology Program and the Human Toxicology Project Consortium

Fishers Lane Conference Center
National Institutes of Health
Bethesda, MD
June 26-27, 2017

Monday, June 26

Time	Agenda Item	Presenter
8:00 a.m.	Registration and continental breakfast outside meeting room <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
8:30 a.m.	Welcome, summary of workshop, goals, work products	Kate Willett Humane Society of the United States (HSUS)/Humane Society International (HSI)
8:45 a.m.	Keynote Lecture – A Call to Action	Chris Austin National Center for Advancing Translational Sciences (NCATS)
9:30 a.m.	Session 1 – Setting the Stage: What is Needed and Why?	Chair: Warren Casey National Institute of Environmental Health Sciences (NIEHS)
9:35 a.m.	• Challenges and needs to use existing data in drug development	François Pognan Novartis
9:55 a.m.	• NIEHS-led U.S. roadmap to implementation of alternatives	Warren Casey NIEHS
10:20 a.m.	• Clinical point of view: current practices, challenges, and needs	Bruce Cuthbert National Institute of Mental Health
10:45 a.m.	Break <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
11:00 a.m.	• FDA collaborations for addressing practical applications	Suzanne Fitzpatrick Food and Drug Administration (FDA)
11:20 a.m.	• Case studies in 21st century disease models <ul style="list-style-type: none"> ◦ A tiered approach to in vitro-based compound testing: Using computational modeling, big data approaches and fit-for-purpose in vitro assays to streamline compound development ◦ Using organoids to define key pathways in chronic obstructive pulmonary disease (COPD) pathogenesis ◦ Organs-on-chips: A platform for advancing drug development and disease modeling 	Rebecca Clewell ScitoVation Ian Adcock Imperial College London Daniel Levner Emulate, Inc.
12:30 p.m.	Lunch (on your own)	

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Monday, June 26 *(continued)*

Time	Agenda Item	Presenter
1:45 p.m.	Breakout Group Discussion Session 1	
2:45 p.m.	Break <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
3:00 p.m.	Session 2 – Big Data; Information Into Knowledge Into Action	Chair: Ajay Pilli Library of Integrated Network-based Cellular Signatures (LINCS) Program, National Institutes of Health (NIH)
3:10 p.m.	• Overview of NIH big data projects, LINCS in particular	Ajay Pilli NIH LINCS
3:30 p.m.	• Biomedical Data Translator – What’s it going to take?	Christine Colvis NIH Translator
3:50 p.m.	• Translator and Fanconi anemia	Christopher Chute NIH Translator
4:10 p.m.	Break <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
4:30 p.m.	Breakout Group Discussion Session 2	
5:30 p.m.	Break <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
5:40 p.m.	Recap Day 1	
6:00 p.m.	Adjourn	

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Tuesday, June 27

Time	Agenda Item	Presenter
8:00 a.m.	Registration and continental breakfast outside meeting room <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
8:30 a.m.	Session 3 – Current Tools to Support Pathway-based Decisions	Chair: Suzanne Fitzpatrick FDA
8:30 a.m.	• Tox21 and beyond for pharma and biomed	Anton Simeonov NCATS
8:50 a.m.	• Organs-on-a-chip: Applications for testing and research	Lucie Low NCATS
9:10 a.m.	• Primary cell-based phenotypic profiling for building human outcome pathways	Ellen Berg DiscoverX Corporation
9:30 a.m.	• Systems biology approach to cancer	Shannon Hughes National Cancer Institute
9:50 a.m.	Break <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
10:00 a.m.	• How might a “pathway-based” approach help (e.g., AOPs)	Kate Willett HSUS/HSI
10:20 a.m.	• A network-based approach to understanding drug toxicity and its application to human liver disease	Jeff Sutherland Consultant, Indiana Biosciences Research Institute
10:40 a.m.	• Systems pharmacology (PredicTox)	Darrell Abernethy FDA
11:00 a.m.	Break <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
11:15 a.m.	Breakout Group Discussion Session 3	
12:15 p.m.	Lunch (on your own)	
1:15 p.m.	Summary of Breakout Group Discussions 1-3	

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Tuesday, June 27 *(continued)*

Time	Agenda Item	Presenter
2:45 p.m.	Session 4 – Coordination and Support: How to Make it Work	Chair: Troy Seidle HSI
	<ul style="list-style-type: none">• Panel discussion<ul style="list-style-type: none">◦ Role of funding agencies◦ Role of pharma◦ Role of academia/SMEs◦ Role of regulatory agencies	Chris Austin NCATS François Pognan Novartis Daniel Levner Emulate Frank Weichold FDA
3:45 p.m.	Break <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
4:00 p.m.	Group Discussion Session 4	
4:40 p.m.	Break <i>Refreshments sponsored by the Human Toxicology Project Consortium</i>	
4:50 p.m.	Wrap-up: Summary of Discussion Questions	Chairs: Warren Casey NIEHS Kate Willett HSUS/HSI
5:00 p.m.	Adjourn	