



A HUMAN PATHWAYS APPROACH TO DISEASE RESEARCH

26 – 27 June 2017 | NIH Fishers Lane Conference Center, Bethesda, MD

**DRAFT AGENDA**

**Monday 26 June 2017**

- 0800 Registration and continental breakfast outside meeting room
- 0830 Welcome, summary of workshop, goals, work products Kate Willett
- 0845 KEYNOTE LECTURE: A CALL TO ACTION** Chris Austin, NCATS
- 0930 SESSION 1 – SETTING THE STAGE: WHAT IS NEEDED AND WHY?**  
*Chair: Warren Casey*
- 0935 Challenges and needs to use existing data in drug development  
François Pognan, Novartis
- 0955 NIEHS-led US roadmap to implementation of alternatives Warren Casey, NIEHS
- 1020 Clinical Point of view: current practices, challenges and needs Bruce Cuthbert, NIMH
- 1045 BREAK**
- 1100 FDA collaborations for addressing practical applications Suzanne Fitzpatrick, FDA
- 1120 Case studies in 21<sup>st</sup> Century disease models  
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  
Rebecca Clewell, ScitoVation  
Using organoids to define key pathways in COPD pathogenesis  
Ian Adcock, Imperial College London  
Organs-on-Chips: A Platform for Advancing Drug Development and Disease Modeling  
Daniel Levner, Emulate, Inc
- 1230 LUNCH**
- 1345 BREAKOUT GROUP DISCUSSION SESSION 1;**
- 1445 BREAK**
- 1500 SESSION 2: BIG DATA; INFORMATION INTO KNOWLEDGE INTO ACTION**  
*Chair: Ajay Pillai*
- 1510 Overview of NIH Big data projects, LINCS in particular Ajay Pillai, NIH LINCS
- 1530 Biomedical Data Translator – What’s it going to take? Christine Colvis, NIH Translator
- 1550 Translator and Fanconi Anemia Christopher Chute
- 1610 BREAK**
- 1630 BREAKOUT GROUP DISCUSSION SESSION 2**
- 1730 BREAK**
- 1740 RECAP DAY1**
- 1800 ADJOURN**

**0830 SESSION 3: CURRENT TOOLS TO SUPPORT PATHWAY-BASED DECISIONS**

*Chair: Suzy Fitzpatrick*

0830 Tox21 and beyond for pharma and biomed Anton Simeonov, NCATS

0850 Organs on a chip: applications for testing and research Lucie Low, NCATS

0910 Primary Cell-Based Phenotypic Profiling for Building Human Outcome Pathways  
Ellen Berg, DiscoverRx Corporation

0930 Systems Biology Approach to Cancer Shannon Hughes, NCI

**0950 BREAK**

1000 How might a “pathway-based” approach help (e.g. AOPs)? C. Willett, HSUS/HSI

1020 A network based approach to understanding drug toxicity and its application to human liver disease  
Jeff Sutherland, Indiana Biosciences Research Institute Consultant

1040 Systems Pharmacology (PredicTox) Darrell Abernethy, FDA

**1100 BREAK**

**1115 BREAKOUT GROUP DISCUSSION SESSION 3**

**1215 LUNCH**

**1345 SUMMARY OF BO GROUP DISCUSSIONS 1 – 3**

**1445 SESSION 4: COORDINATION AND SUPPORT: HOW TO MAKE IT WORK**

*Chairs, Troy Seidle*

**Panel discussion**

Role of funding agencies: Chris Austin, NCATS

Role of pharma François Pognan, Novartis

Role of academia/SMEs Daniel Levner, Emulate

Role of regulatory agencies: Frank Weichold, FDA

**1545 BREAK**

**1600 GROUP DISCUSSION SESSION 4**

**BREAK**

**1550 WRAP-UP: SUMMARY OF DISCUSSION QUESTIONS**

*Chairs, Kate Willett and Warren Casey*

**1700 ADJOURN**