Selected Events Related to Cellular and Computational Toxicology

SOT 2018 Annual Meeting

Saturday, March 10

8:30 AM—6:30 PM
SATellite MEETING
Building a Better Epithelium: Breaking the Barrier to the Next Generation of Toxicity Testing
SOT Contemporary Concepts in Toxicology (CCT) meeting.

Sunday, March 11

See CE course registration fees here:
http://www.toxicology.org/events/am/AM2018/registration-fees.asp

7:00 AM—7:45 AM
SUNRISE CONTINUING EDUCATION MINI-COURSE
Suzanne C. Fitzpatrick, US FDA, College Park, MD; and Mansi Krishan, ILSI North America, Washington, DC.

8:15 AM—12:00 Noon
CONTINUING EDUCATION
In Vitro Testing: Tales from the Real World
Kelly Coleman, Medtronic PRL, Minneapolis, MN; and Amy Clippinger, PETA International Science Consortium LTD., Norfolk, VA.

physiologically-based pharmacokinetic modeling to support modernized chemical safety assessment
Miyoung Yoon, ScioVation, Research Triangle Park, NC; and Alicia Paini, European Commission Joint Research Centre, Ispra, Italy.

CONTINUING EDUCATION
Consumer Products Safety Assessment: Progress in the Use of Alternatives to Animal Models
Kathryn E. Page, The Clorox Company, Pleasanton, CA; and Thomas Hartung, Johns Hopkins Center for Alternatives to Animal Testing (CAAT), Baltimore, MD.

Uncertainty Characterization in 21st-Century Toxicology: Current Practice and Practical Methods Supporting Regulatory Risk Assessment
Kristi Muldoon-Jacobs, US Pharmacopeial Convention, Rockville, MD; and Andrea Richarz, European Commission Joint Research Centre, Ispra, Italy.

1:15 PM—5:00 PM
CONTINUING EDUCATION

5:15 PM—6:30 PM
AWARDS CEREMONY
Enhancement of Animal Welfare Award
Anna B. Lowit, PhD, US EPA, Washington, DC.

Toxicological Sciences Paper of the Year Award
Leah M. Norona, Deborah G. Nguyen, David A. Gerber, Sharon C. Presnell, and Edward L. LeCluyse.

Colgate-Palmolive Grant for Alternative Research
Kristen Comfort, PhD, University of Dayton, Dayton, OH; and Valentina Galbiati, PhD, University of Milan, Milan, Italy.

Colgate-Palmolive Postdoctoral Fellowship Award in In Vitro Toxicology
Recipient to Be Announced.

Colgate-Palmolive Award for Student Research Training in Alternative Methods
Ian Huck, BS, University of Kansas Medical Center, Kansas City, KS; and Lauren Lewis, BS, Texas A&M University, College Station, TX.

Monday, March 12

9:00 AM—10:00 AM
EXHIBITOR-HOSTED SESSION
Implementing New Approaches to Evaluate the Safety of Chemicals and Medical Products in the United States
Presented by NIEHS and NTP.
Convention Center Room 217C

9:15 AM—12:00 Noon
WORKSHOP SESSIONS

Assessing the Dose of Particles in Toxicological Studies: Advances in Dosimetry Models for In Vitro and In Vivo Applications in Light of Risk Assessment
Flemming Cassee, Rijksinstituut voor Volksgezondheid en Milieu (RIVM) and University of Utrecht, Bilotven, Netherlands; and Justin Teeguarden, Pacific Northwest National Laboratory, Richland, WA.

Toxicology’s Next Grand Challenge: Embracing Exposure Science for Effective Public Health Protection
Claire Terry, Dow AgroSciences, Indianapolis, IN; and Timothy Gant, Public Health England, Chilton, United Kingdom.

PLATFORM SESSION
Investigating Mode-of-Action in Chemical Carcinogens

9:15 AM—4:30 PM

POSTER SESSIONS

- Cardiovascular Toxicology: In Vitro Systems
- Respiratory Toxicology: In Vitro Studies

10:30 AM—11:30 AM
EXHIBITOR-HOSTED SESSIONS

New Regulatory Drivers for Agrochemical Testing
Charles River.

Skin Sensitization: What Place Does In Silico Have within a Defined Approach?
Lhasa Limited.

11:30 AM—1:00 PM
IN VITRO TOXICOLOGY LECTURE AND LUNCHEON

More Than Skin Deep: When Alternative Approaches Outperform Animal Tests
Mindy Reynolds, Washington College, Chestertown, MD.
Lecturer: Nicole Kleinstreuer, NIEHS, Research Triangle Park, NC.

12:00 NOON—1:00 PM
EXHIBITOR-HOSTED SESSIONS

Evolution of 3D Tissue Models for Toxicology and Disease Modeling
Bio-Technne.

Leveraging Genetic Diversity to Reduce Clinical Attrition: A Novel Approach to In Vitro Safety and Toxicity Testing
Coyne Scientific, LLC.

Neurotox and Cardiac Safety Assessment: Case Studies Employing iPS Cell Lines and Next-Generation MEA Technology

Tools for Streamlining QSAR/PBPK/QST Modeling and Simulation
Simulations Plus, Inc.

12:10 PM—1:30 PM
INFORMATIONAL SESSION

Moving Beyond Theory to the Use of Systematic Review to Support Regulatory Decision Making for Evidence-Based Risk Assessment
Daniele Wikoff, ToxStrategies, Asheville, NC; and Katya Tsaioum, Johns Hopkins Bloomberg School of Public Health Evidence-Based Toxicology Collaboration, Watertown, MA.
1:30 PM—2:30 PM
EXHIBITOR-HOSTED SESSIONS
Can Pharmacokinetic Modeling Keep Up with Risk Assessment in the 21st Century?
ScitoVation.

Novel MetMax Hepatocytes and Enterocytes for the Evaluation Drug Metabolism, Drug-Drug Interactions, and Metabolism-Dependent Toxicity
In Vitro ADMET Laboratories.

1:45 PM—4:30 PM
SYMPOSIUM SESSIONS
Alternative Testing Strategies for Nanomaterials and Ultrafine Particles
Monita Sharma, PETA International Science Consortium Ltd., London, United Kingdom; and Justin Teeguarden, Pacific Northwest National Laboratory, Richland, WA.

High Throughput Transcript Profiling and Functional Assessment: From Screening to Systems Biology
BioSpyder Technologies.

3:00 PM—4:00 PM
EXHIBITOR-HOSTED SESSIONS
Genetic Diversity for Patient Specific Safety Assessments: Future of Toxicology?
Nanion Technologies.

High-Throughput Transcriptomics: Addressing the Human Risk Assessment Challenges of Chemical Coverage, Metabolism, and Population Variation
BioSpyder Technologies.

What Can In Vitro Toxicology Learn from Genetic Toxicology for Regulatory Acceptance?
Charles River and Toxys.

4:45 PM—6:00 PM
SOT/EUROTOX DEBATE
Adverse Outcome Pathways Are the Future for Regulatory Toxicology
Daniel Villeneuve, US EPA; and Brigitte Landesmann, European Commission Joint Research Centre Institute for Health and Consumer Protection.

Tuesday, March 13
8:00 AM—10:45 AM
SYMPOSIUM SESSION
Clinical and Translational Toxicology: From Theory to Therapy
Horst Thiermann, Bundeswehr Institute of Pharmacology and Toxicology, Munich, Germany; and Sally Bradberry, National Poisons Information Service (Birmingham Unit) and West Midlands Poisons Unit, Birmingham, United Kingdom.

WORKSHOP SESSIONS
Advancing the Adverse Outcome Pathway Framework: An International Horizon Scanning Approach
Rory Conolly, US EPA, Research Triangle Park, NC; and Markus Hecker, University of Saskatchewan, Saskatoon, SK, Canada.

Computational Predictions for Dermal Penetration of Chemicals: Should More Complexity Be Considered in Addition to Simple Passive Diffusion?
Marina Evans, US EPA, Research Triangle Park, NC; and Ronald Baynes, North Carolina State University, Raleigh, NC.

9:00 AM—10:00 AM
EXHIBITOR-HOSTED SESSION
A Novel 3D Microtissue-Based Platform for Studying Liver Fibrosis
*InSphero Inc.*

TSCA Reform: Use of New Tools and Technology for Prioritization and Chemical Risk Evaluation
*ToxStrategies, Inc.*

9:15 AM—4:30 PM
**POSTER SESSIONS**
- Alternatives to Mammalian Models
- Apoptosis and Cell Death
- Bioinformatics and *In Silico* Modeling
- Computational Tools for Safety Assessment
- Exposure Assessment: Tools and Methods Development
- Stem Cell Biology and Toxicology

10:30 AM—11:00 AM
**EXHIBITOR-HOSTED SESSIONS**
Achieve Higher Quality Data and Enable Multiplexing Options by Adopting Real-Time *In Vitro* Cytotoxicity Assays in 2D/3D Cultures
*Promega Corporation.*

Three-Dimensional (3D) Cultures of HepaRG Cells Model Physiologically-Relevant Drug Metabolism, Drug-Induced Liver Injury, and Hepatic Signaling Pathways
*Lonza.*

11:00 AM—12:20 PM
**ROUNDTABLE SESSION**
Alternative Toxicology Approaches to Evaluate Next-Generation Nicotine Products
*John Fowle III, Science to Inform, LLC, Pittsboro, NC; and Erin Hill, Institute for In Vitro Sciences, Gaithersburg, MD.*

12:00 NOON—1:00 PM
**EXHIBITOR-HOSTED SESSIONS**
Development of Real-Time Cardiotoxicity and Hepatotoxicity Assays Using Human iPSC-Derived Cells
*ACEA Biosciences.*

Let the Machine Do the Work: Using Automation for High-Throughput *In Vitro* Toxicity Assays
*Miltenyi Biotec Inc.*

12:00 NOON—1:15 PM
**ANCILLARY MEETING**
Driving Innovation in Preclinical Pharma Testing: Updates and Next Steps for the Preclinical Innovation and Patient Safety (PIPS) Initiative
*Sponsored by PCRM and InSphero.*
Grand Hyatt Bowie A-B Room

12:00 NOON—1:30 PM
**SPECIALTY SECTION**
Computational Toxicology Specialty Section Meeting/Luncheon

12:30 PM—1:30 PM
**MERIT AWARD LECTURE**
*Lecturer:* Robert J. Kavlock, Washington, DC.

1:30 PM—4:15 PM
**SYMPOSIUM SESSIONS**
Application of Data from New Approaches in Regulatory and Product Safety Decisions
*Russell Thomas, US EPA, Research Triangle Park, NC; and Mike Rasenberg, European Chemicals Agency (ECHA), Helsinki, Finland.*

Effectively Leveraging Cellular Functional Genomics Strategies for Elucidating Chemical Mechanisms of Action
*Audrey Bone, US EPA, Research Triangle Park, NC; and Federica Piccioni, Broad Institute of MIT and Harvard, Cambridge, MA.*

**WORKSHOP SESSION**
Big Data in Toxicology: How to Achieve Transparency and Reproducibility
Agnes Karmaus, ILS, Research Triangle Park, NC; and Lyle Burgoon, US Army Engineer Research and Development Center, Research Triangle Park, NC.

5:00 PM—7:00 PM
ANCILLARY MEETING
Hands-On Seminar: Creating an Adverse Outcome Pathway in the AOP Wiki
Sponsored by PCRM and HTPC.
Grand Hyatt Bowie A-B room

7:30 PM
TOX SHOWDOWN
Toxicology trivia

Wednesday, March 14

8:00 AM—10:45 AM
WORKSHOP SESSION
Reducing the Uncertainty of Read-Across Predictions by New Approach Methodologies: Application in Regulatory Human Risk Assessments
Ivan Rusyn, Texas A&M University, College Station, TX; and Nicole Kleinstreuer, NTP NICEATM, Durham, NC.

9:15 AM—4:30 PM
POSTER SESSIONS
• Alternatives to Mammalian Models II
• Alternatives to Mammalian Models III: Liver, Ocular, and Skin Alternatives
• Modeling of Pharmacokinetics and Biological Effects
• Nanotoxicity: In Vitro

10:30 AM—11:30 AM
EXHIBITOR-HOSTED SESSION
Designed-for-Purpose: Complex Liver Cell Cultures for Improving In Vitro Hepatotoxicity Testing
Lonza.

11:00 AM—12:00 NOON
EUROTOX BO HOLMSTEDT MEMORIAL AWARD LECTURE
Human Skin Stem Cell-Derived Hepatic Cells and Their Potential Applications in Toxicology
Vera Rogiers, Vrije Universiteit Brussel.

11:00 AM—12:00 NOON
EUROTOX BO HOLMSTEDT MEMORIAL AWARD LECTURE
Novel In Vitro and In Silico Platforms for Modeling Developmental and Reproductive Toxicity
Thomas Knudsen, US EPA, Research Triangle Park, NC; and Nicole Kleinstreuer, NIEHS, Research Triangle Park, NC.

11:00 AM—12:20 PM
ROUNDTABLE SESSIONS
• Is a Common Mechanism of Action Essential to Conduct a Cumulative Risk Assessment or Just Nice to Have?
Suzanne Fitzpatrick, US FDA, College Park, MD; and Elaine Faustman, University of Washington, Seattle, WA.

Unlocking the ‘Omics Archive: Enabling Toxicogenomic/Proteomic Investigation from Archival Samples
Deidre Dalmas, GlaxoSmithKline, King of Prussia, PA; and Susan Hester, US EPA, Research Triangle Park, NC.

INFORMATIONAL SESSION
Good Cell and In Vitro Method Practices against the “Reproducibility Crisis”
David Pamies, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; and Sandra Coecke, European Commission Joint Research Centre, Ispra, Italy.

12:00 NOON—1:00 PM
EXHIBITOR-HOSTED SESSION

12:00 NOON—1:30 PM
SPECIALTY SECTION
Thursday, March 15

8:30 AM—11:15 PM
SYMPOSIUM SESSION
In Vitro Test Methods to Model Local Respiratory Effects after Exposure to Pulmonary Toxicants: Not Just Smoke and Mirrors
Holger Behrsing, Institute for In Vitro Sciences, Gaithersburg, MD; and Mark Higuchi, US EPA, Research Triangle Park, NC.

12:30 PM—4:00 PM
SATELLITE MEETING
Updates on Activities Related to 21st Century Toxicology and Related Efforts: Invited Presentations and Open Mic
Center for Alternatives to Animal Testing and the Human Toxicology Project Consortium.