

5th Annual Meeting *of the*American Society for Cellular and Computational Toxicology

September 29-30, 2016

US EPA Building Research Triangle Park, NC

September 29

8:30-8:45

President's welcome | David Allen, Integrated Laboratory Systems, Inc.

8:45-9:30

Making big sense of big data by read-across | Thomas Hartung, Center for Alternatives to Animal Testing (CAAT), Johns Hopkins University

9:30-10:30

Oral presentations: Read across

9:30-9:50: High-throughput literature mining to support read-across predictions of toxicity | *Nancy Baker, Lockheed Martin*

9:50-10:10: An open-source workflow for in vitro to in vivo extrapolation | *Xiaoqing Chang, Integrated Laboratory Systems, Inc.*

10:10-10:30: PyChemSim – comparing chemical similarity metrics across diverse health endpoints | *Tom Luechtefeld, CAAT, Johns Hopkins University*

10:30-11:00

Break

11:00-12:20

Oral presentations: Free communications

11:00-11:20: Developing a fit-for-purpose in vitro assay to measure uterine estrogenic activity and guide risk assessment | Daniel L. Doheny, ScitoVation, LLC.

11:20-11:40: Single-cell analysis reveals that silver nanoparticle exposure leads to multi-nucleation through defective cell division | *Ellen Garcia, Virginia Tech*

11:40-12:00: Development and validation of a computational model for androgen receptor activity | Nicole Kleinstreuer, NTP Interagency Center for the Evaluation of Alternative Toxicological Methods

12:00-12:20: Development of direct double strand break labeling assay | *Katherine Dunnick, ScitoVation, LLC.*

12:30-2:30

Lunch + poster viewing + student mentoring activity

Posters attended 1:30-2:30

2:30-4:15

Oral presentations: Free communications

2:30-2:50: International validation study on the Hand1-Luc Embryonic stem cell test (Hand1-Luc EST): A reporter gene assay using engineered mouse ES cells to evaluate embryotoxicity in vitro | Hajime Kojima, JaCVAM, National Institute of Health Sciences, Japan

2:50-3:10: Optimization of the validated in vitro skin irritation test (OECD TG 439) to address the assignment of EPA hazard categories | *Gertrude-Emilia Costin, Institute for In Vitro Sciences*

3:10-3:30: Computational fluid dynamic modeling to support the development of flow-based hepatocyte culture systems for metabolism studies | *Martin B. Phillips, ScitoVation, LLC.*

3:30-3:40 Break

3:40-4:00: Implications of the recent 2016 amendment of the toxic substances control act (TSCA) on the development and implementation of non-animal methods | Catherine Willett, The Humane Society of the United States

4:00-4:15: Strategy for implementing the vision for toxicity testing in the 21^{st} century \mid *Warren Casey, NTP Interagency Center for the Evaluation of Alternative Toxicological Methods*

4:15-6:30

- ASCCT business meeting
- Edward Carney Predictive Toxicology Award
- William and Eleanor Cave Award
- Reception and additional poster viewing (posters attended until 6:00)

September 30

9:00-9:45

Using iPSC derived products for toxicology | Mahendra Rao, Mahendra Rao LLC.

9:45-11:05

Oral presentations: Stem cells

9:45-10:05: Impact of autism-associated CHD8 mutation on iPSC-derived mini-brains | Lena Smirnova, CAAT, Johns Hopkins University

10:05-10:25: Kinetic hepatotoxicity testing using iPSC derived hepatocytes HC2.0 cells | Can Jin, ACEA Biosciences, Inc.

10:25-10:45: Role of mitochondrial dynamics in assessment of developmental neural toxicity using human iPS cells | Yasunari Kanda, Division of Pharmacology, National Institute of Health Sciences, Japan

10:45-11:05: Good Cell Culture Practice (GCCP 2.0): Developments towards the 21st Century | David Pamies, CAAT, Johns Hopkins University

11:05-11:20

Break

11:20-12:30

Closing panel discussion: How can iPS cell models be used to improve the safety assessment of pharmaceuticals? What can interested stakeholders do to help facilitate increased use and acceptance of such models? Are there specific barriers to identify or overcome?

Moderator:

Rodger Curren

Panelists:

Mahendra Rao Les Recio, ILS, Inc.

Ilyas Singeç, National Center for Advancing Translational Science

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