

SOT FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety



In Silico Methods for
Food Ingredient, Dietary
Supplement, and
Cosmetic Safety

May 15, 2019



SOT FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety

Welcome

Suzanne Fitzpatrick, PhD, DABT
Senior Advisor for Toxicology
US FDA, CFSAN OCD
SOT Secretary-Elect
College Park, MD



SOT FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety

Colloquium Series

- **Partnership of US FDA Center for Food Safety and Applied Nutrition (CFSAN) and the Society of Toxicology (SOT)**
- **Stimulate a dialogue among leading toxicology experts on future-oriented toxicological science relevant to food and food ingredient safety assessment**
- **Information for FDA employees and the public**
- **Not a forum for soliciting regulatory advice or discussing food or food ingredient regulatory issues**
- **Are a forum to discuss the latest toxicological science in the context of food chemical safety**



Colloquium Impact

- **Fifth year of quarterly colloquia**
- **Wide-ranging topics related to toxicology and food safety**
- **Global audience from all employment sectors**
 - **Onsite**
 - **Webcast preregistration included 55 individuals from 17 countries outside the US**

SOT FDA Colloquium Website

- Resource for 24/7 learning
- <http://www.toxicology.org/events/shm/fda/fda.asp>



**SOT FDA Colloquia on
Emerging Toxicological Science:
Challenges in Food
and Ingredient Safety**

US FDA, Wiley Auditorium, College Park, Maryland • Live Webcast

In 2014, SOT and the US FDA Center for Food Safety and Applied Nutrition (CFSAN) began a partnership to present colloquia designed to present high-quality, cutting-edge, future-oriented toxicological science to provide a well-grounded, foundation to inform the work of US FDA employees. These colloquia are open at no cost to all who are interested. Recordings and materials are available after the events and can be found below.

Open All

2018–2019 Colloquia

Rectangular Snip

Food from Genetically Engineered Plants: What Role for Metabolomics?—June 13, 2018



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Society of Toxicology Mission

**To Create a Healthier and Safer World by Advancing the Science
and Increasing the Impact of Toxicology**

Among Strategic Priorities

- Strengthen the Relevance and Impact of Toxicology
- Develop and Support Toxicologists to Capitalize on Future Opportunities
- Expand Outreach and Impact Globally



SOT FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety

SOT FDA Organizing Committee

Allen Rudman, PhD, Committee Chair, FDA Lead, US FDA, CFSAN, College Park, MD

Jia-Sheng Wang, MD, PhD, Committee Co-chair, University of Georgia, Athens, GA

Jason L. Aungst, PhD, US FDA, CFSAN, College Park, MD

Suzanne Compton Fitzpatrick, PhD, DABT, US FDA, CFSAN, College Park, MD

A. Wallace Hayes, PhD, DABT, ERT, ATS, FRSB, FACFE, University of South Florida and
Michigan State University, Temple Terrace, FL

Jieun Lee, PhD, DABT, Kellogg, Battle Creek, MI

Stephen M. Roberts, PhD, University of Florida, Gainesville, FL

Jeffrey J. Yourick, PhD, DABT, ATS, US FDA, CFSAN, Laurel, MD

Anne H. Chappelle, PhD, DABT, SOT Council Contact, Chadds Ford, PA

Speaker Introductions

Kirk Arvidson, PhD

Colloquium Chair

US FDA, CFSAN

College Park, MD



Today

***In Silico* Methods for Food Ingredient, Dietary Supplement, and Cosmetic Safety**

8:30 AM–8:40 AM

Welcome

Suzanne Fitzpatrick, US FDA, CFSAN, College Park, MD

Speaker Introductions

Kirk Arvidson, US FDA, College Park, MD

8:40 AM–9:20 AM

Drivers for the Application and Acceptance of *In Silico* Safety Assessment Based on Chemical Exposure

Mark Cronin, Liverpool John Moores University, Liverpool, UK

9:20 AM–10:00 AM

Identifying, Estimating, and Communicating Uncertainty within *In Silico* Approaches to Chemical Safety Assessment

James F. Rathman, The Ohio State University, Columbus, OH

10:00 AM–10:20 AM

Break



Today

***In Silico* Methods for Food Ingredient, Dietary Supplement, and Cosmetic Safety**

10:20 AM–11:00 AM

A Case Study on PBPK and Biologically Based Dose-Response Modeling for Safety Assessment Considerations: Utility and Challenges

Annie Lumen, NCTR, Jefferson, AR

11:00 AM–11:40 AM

Transformation of Threshold of Toxicological Concerns (TTC) to Internal TTC: Why Internal Exposure Matters and How We Will Get There

Corie Ellison, Procter and Gamble, West Chester, OH

11:45 AM–12:45 PM

Roundtable Discussion

Moderator: Kirk Arvidson, US FDA, College Park, MD

Chihae Yang, MN AM, Nurnberg, Germany

All speakers

