

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



*In Vitro to In Vivo* Concordance  
for Toxicity Prediction and Use  
in Safety Assessments

October 24, 2017



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

## Welcome

### Steven Musser, PhD

Deputy Director of Scientific Operations, CFSAN, US FDA  
College Park, MD





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## Welcome from SOT

### **Bryan Delaney, PhD, DABT, ATS**

Chair, SOT FDA Colloquium Organizing Committee

DuPont Pioneer, Johnston, IA

**SOT** | Society of  
Toxicology



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

## Colloquium Series

- Partnership SOT and US FDA Center for Food Safety and Applied Nutrition (CFSAN)
- High-quality, cutting-edge, future-oriented toxicological science
- Information for FDA employees and the public
- Not a public forum for discussion of toxicology regulatory issues



## 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



## Colloquium Impact

- Fourth year of quarterly colloquia
  - December: Neurobiology of Food Additives
  - February: Risk Assessment of Mixtures
  - May: Biotechnology of Modern Agriculture
- Wide-ranging topics related to toxicology and food safety
- Global audience from all employment sectors
  - About 500 participating today via webcast
- Resource for 24/7 learning
  - [www.toxicology.org](http://www.toxicology.org) for recordings and slides



## Opportunities through SOT

- Submit your late-breaking data for the 2018 Annual Meeting
  - San Antonio March 11-15, 2018
  - Submit Late Breaking abstracts December 5, 2017-January 12, 2018
- IVAMSS Webinar: The “V” Word: Ongoing Efforts to Assess the Validity of In Vitro and Alternative Methods for Chemical Safety
  - October 25 11:00 am ET
  - See SOT events calendar

# SOT FDA Organizing Committee

**Bryan Delaney, PhD, DABT, ATS**, Committee Chair, DuPont Pioneer, Johnston, IA

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

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

**Norbert E. Kaminski, PhD**, Michigan State University, East Lansing, MI

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

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

**Allen Rudman, PhD**, FDA Lead, US FDA, CFSAN, College Park, MD

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

**John B. Morris, PhD**, SOT Council Contact, University of Connecticut, Storrs, CT

**Paddy Wiesenfeld, PhD**, Colloquium Co-Chair, CFSAN, US FDA, Laurel, MD







## Colloquium Leads

- **Chair: Bryan Delaney, PhD, DABT, ATS**  
DuPont Pioneer, Johnston, IA
  
- **Co-chair: Paddy Wiesenfeld, PhD**  
US FDA, Laurel, MD

# Agenda

8:50 AM–9:30 AM

- **'Omic Biomarkers for Assessing Cellular Toxicity: Integration of *In Vivo* and *In Vitro* Data—Why It Is Important**

Bruce Fowler, Toxicology and Risk Assessment Consulting Services, LLC, Rockville, MD

9:30 AM–10:10 AM

- **Establishing an Integrated *Ex Vivo* Female Reproductive Tract in the Microfluidic Platform: Screening of Reproductive Toxic Chemicals**

Shuo Xiao, University of South Carolina, Columbia, SC

10:10 AM-10:30 AM

**Break**



# Agenda

10:30 AM-11:10 AM

- **Investigation of an *In Vitro* Method for Protein Hazard Characterization**

Bryan Delaney, DuPont Pioneer, Johnston, IA

11:10 AM-11:50 AM

- **Analysis of *In Vitro* to *In Vivo* Concordance Studies for Food Safety Assessment in Humans**

Miriam E. Mossoba, US FDA, Laurel, MD

11:50 AM-12:50 PM

- **Roundtable Discussion**

Paddy Wiesenfeld, US FDA, Moderator

All speakers

