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

March 27, 2018

Can Alternatives Inform the Risk Assessments of Mixtures in Food?

Chair: A. Wallace Hayes, University of South Florida College of Public Health, Tampa, FL, and Institute for Integrative Toxicology, Michigan State University, East Lansing, MI

Co-chair: Suzanne Compton Fitzpatrick, US FDA, College Park, MD

Food Safety Colloquia Series

Current risk assessments of chemicals in food do not generally consider exposure to multiple substances but rely instead on the assessment of individual substances in individual food commodities. Humans however are routinely exposed simultaneously to numerous chemicals in food. These mixtures can be variable and constantly changing and defining them presents a challenge. Models could be used independently and in an integrated manner to assess health impacts. This colloquium will examine whether new testing approaches such as *in vitro*, *in silico*, and non-mammalian *in vivo* models could be used to assess the potential health impacts of exposure to chemical mixtures in food.

Schedule *(All times are Eastern US, GMT-4)*

8:00 AM–8:30 AM	**Badge Pick Up** Meeting Desk
8:30 AM–8:45 AM	**US FDA Welcome and Overview** **Conrad J. Choiniere,** Director, Office of Analytics and Outreach, CFSAN, US FDA, College Park, MD
	Welcome from SOT **Suzanne Fitzpatrick,** CFSAN, US FDA, College Park, MD
	Speaker Introductions **A. Wallace Hayes,** Colloquium Chair, University of South Florida College of Public Health, Tampa, FL, and Institute for Integrative Toxicology, Michigan State University, East Lansing, MI
8:45 AM–8:50 AM	**Why a New Approach is Needed** **A. Wallace Hayes,** University of South Florida College of Public Health, Tampa, FL, and Institute for Integrative Toxicology, Michigan State University, East Lansing, MI
8:50 AM–9:30 AM	**Can High Thru-put Assays/Tox 21 Inform Hazard Identification?** **Michael J. Devito,** NTP, Research Triangle Park, NC
9:30 AM–10:10 AM	**Proposed *In Silico*/*In Vitro* Approach for Botanical Mixtures** **Catherine Mahony,** Procter & Gamble Technical Centres Ltd., Surrey, UK
10:10 AM–10:30 AM	**Break**
10:30 AM–11:10 AM	**Non-Mammalian *In Vivo* Models: *C. elegans* As a Model System to Inform Hazard Identification** **Piper Reid Hunt,** US FDA, Laurel, MD
11:10 AM–11:50 AM	**Extrapolating New Approaches into a Tiered Approach to Mixtures Risk Assessment** **Mike Dourson,** Toxicology Excellence for Risk Assessment, Cincinnati, OH
11:50 AM–12:50 PM	**Roundtable Discussion** **Moderator:** A. Wallace Hayes **All Speakers**

US FDA, College Park, Maryland • Live Webcast

Organizing Committee

Bryan Delaney, PhD, DABT, ATS, Colloquium Series Chair, DuPont Pioneer, Johnston, IA

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Betty Eidemiller, SOT Staff, Reston, VA

Future Colloquia

June 2018: Biotechnology of Modern Agriculture
Watch for the announcement of the 2018–2019 Colloquia

Previous Colloquia

Recordings and Materials available at http://www.toxicology.org/fda

In Vitro to _In Vivo_ Concordance for Toxicity Prediction and Use in Safety Assessments

Safety Assessment of Food Packaging and Other Food Contact Substances

Considerations for the Determination of Adversity in Food Chemical Safety Evaluations

Application of _In Vitro_ to _In Vivo_ Extrapolation in Safety Assessment

State of the Science in Developmental Neurotoxicology

Safety Assessment Approaches in Young Children

State of the Art in the Cramer Classification Scheme and Threshold of Toxicological Concern

Role of Mode of Action in Dose-Response Assessment for Carcinogens

A Path Forward for Using Computational and _In Vitro_ Methods for Food Ingredient Assessments

Contemporary Issues in Risk Assessment

Immunotoxicology in Food and Ingredient Safety Assessment: Approaches and Case Studies

Application of ADME/PK Studies to Improve Safety Assessments for Foods and Cosmetics

Complexities in Evaluating Human Clinical and Observational Data for Ingredient Safety Assessment: Partially Hydrogenated Oils (PHOs) As a Case Study

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