The Evolving Science in Developmental Immunology and Immunotoxicity

May 4, 2023
Welcome from SOT

Dori Germolec, PhD
President, Society of Toxicology
NIEHS-Division of Translational Toxicology
Durham, NC
Society of Toxicology Vision/Mission

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

Among Strategic Objectives

- Promote Transdisciplinary Science and Cooperation with Other Disciplines
- Expand Global Outreach, Engagement, and Collaboration
- Provide Opportunities to Capitalize on Scientific Advancements
- Develop Communication Partnerships with Key Influencers
- Promote Use of Science in Decision Making
Colloquium Series

- Partnership of US FDA Center for Food Safety and Applied Nutrition (CFSAN) and the Society of Toxicology (SOT)
- Ninth year of colloquia series, two this year, and this is the 28th event
- Stimulate a dialogue among leading toxicology experts on future-oriented toxicological science relevant to food and food ingredient safety assessment
- Are a forum to discuss the latest toxicological science in the context of food chemical safety
- Not a forum for soliciting regulatory advice or discussing food or food ingredient regulatory issues
Colloquium Series

- Open to the public via webcast at no cost
- General audience from all employment sectors
- Recording and slides for all colloquia are available at www.toxicology.org
Previous Sessions Have Covered a Wide Range of Topics

- Models and methods
  - Genomics, NAMs, bioassay, MPS and tissue models, IVIVE

- Organ/systems toxicity
  - Neurotoxicity, ADME, Immunotoxicity, Food Allergy

- Safety assessment
  - Packaging, food contaminants and constituents

https://www.toxicology.org/events/shm/fda/fda.asp
SOT FDA Organizing Committee

Completed Terms April 30, 2023

- **Stephen W. Edwards**, PhD, Colloquium Series Chair 2022-2023, RTI International, Chapel Hill, NC
- **Udayan Apte**, PhD, DABT Colloquium Series Chair 2021-2022, University of Kansas Medical Center, Kansas City, KS
- **Christine Perdan Curran**, PhD, SOT Council Contact 2021-2023, Northern Kentucky University, Highland Heights, KY
SOT FDA Organizing Committee 2023-2024

- **David C. Dorman**, DVM, PhD, DABT, DABVT, ATS, Colloquium Series Chair, North Carolina State University, Raleigh, NC
- **Jason R. Richardson**, PhD, DABT, ATS, Colloquium Series Co-Chair, Florida International University, Miami Beach, FL
- **Jason L. Aungst**, PhD, FDA Liaison, US FDA, College Park, MD
- **Omari Bandele**, PhD, US FDA, FDA Liaison, College Park, MD
- **Suzanne C. Fitzpatrick**, PhD, DABT, US FDA, College Park, MD
- **Esther Haugabrooks**, PhD, The Coca-Cola Company, Atlanta, GA
- **Rayetta Henderson**, PhD, ToxStrategies Inc, Katy, TX
- **Willie McKinney**, PhD, DABT, McKinney Regulatory Science Advisors, LLC, Henrico, VA
- **Jeffrey J. Yourick**, PhD, DABT, ATS, US FDA, Laurel, MD
- **Chidozie Amuzie**, DVM, PhD, DACVP, DABT, SOT Council Contact, Johnson and Johnson, Toronto, Canada
The Evolving Science in Developmental Immunology and Immunotoxicity

Colloquia Co-Chairs

- Patrick Crittenden, PhD
  US FDA, CFSAN
- Leigh Ann Burns Naas, PhD, DABT, ATS, ERT
  Magnolia Toxicology Consulting, LLC
Colloquium Objectives

- What’s so special about the developing immune system?
  - Why should you be interested in Developmental Immunotoxicology?
  - Historical Perspective Leading to Testing Recommendations

- Current understanding of mammalian immune development and its impact on testing strategies and interpretation

- New science impacting study design and data interpretation
  - Translational impact of environmental/nutritional alterations during human development
  - Prenatal vs postnatal hematopoiesis and its impact on immunity

- Looking toward the Future: early efforts in developing NAMs