Infants’ Exposures to Chemicals Through Breastfeeding Explored at Toxicology Conference

Phoenix, Ariz.; March 26, 2014 — Toxicologists are revealing new methods and models for estimating infants’ exposure to persistent organic pollutants (POPs) today at the Society of Toxicology (SOT) 53rd Annual Meeting and ToxExpo in Phoenix, Ariz.

Infants are exposed to a variety of chemicals throughout their development, but much remains to be learned about chemicals ingested by babies through their mothers’ breast milk. While scientists and doctors agree that breastfeeding remains the healthiest option for infants despite the presence of chemicals in their milk, understanding the types of exposures and their levels will increase the health and safety of newborns.

“Being exposed to POPs either before or after birth is an important consideration in assessing risk. It is important to accurately assess early life exposures to these chemicals, but to do so without diverting attention from the substantial health benefits of breastfeeding,” say David G. Farrer, PhD, Oregon Health Authority, and Geniece M. Lehmann, PhD, US Environmental Protection Agency, session co-chairs for “Understanding the Implications of Breastfed Infant Exposures to POPs: How Can We Do Better.”

Research has shown that POPs—chemicals such as PCBs, DDT, and dioxin—can accumulate over time in a woman’s fatty tissues. These chemicals then find their way into breast milk, but in what quantity and to what effect are less understood.

The information, models, and tests being presented during today’s session are designed to help provide clarity to these unknowns. Presenters include:

- Judy S. LaKind, PhD, president of LaKind Associates, LLC, who has extensively studied children’s exposures to environmental chemicals and is discussing what is currently known about infant exposure to POPs through breastfeeding.
- Mike Poulsen, Oregon Department of Environmental Quality, who is speaking about his efforts to include the breastfeeding pathway in the human health risk assessment for an Oregon Superfund site.
- Hisham A. El-Masri, PhD, US EPA, who is presenting a model that estimates the rate of PCB excretion in milk and how it can be used to predict PCB exposure for infants.
- Sami Haddad, PhD, Université de Montréal, who is showcasing a model that predicts children’s internal exposure to POPs and how this model has been used in epidemiological studies to identify crucial windows of sensitivity during childhood development to chemical exposure.

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To speak with a topic expert from the “Understanding the Implications of Breastfed Infant Exposures to POPs” session, please contact:

Michelle Werts  
Society of Toxicology  
703.438.3115 ext. 1640  
michelle@toxicology.org

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About SOT  
Founded in 1961, the Society of Toxicology (SOT) is a professional and scholarly organization of more than 7,700 scientists from academic institutions, government, and industry representing the great variety of individuals who practice toxicology in the US and abroad. SOT is committed to creating a safer and healthier world by advancing the science of toxicology. The Society promotes the acquisition and utilization of knowledge in toxicology, aids in the protection of public health, and has a strong commitment to education in toxicology and to the recruitment of students and new members into the profession. For more information about SOT and toxicology, visit the Society online at www.toxicology.org, follow us on Twitter @SOToxicology, and like us on Facebook.