



October Insights

Emerging Issues 2018: Call for Proposals

HESI is seeking your suggestions for new scientific projects (human or environmental health) for consideration as an emerging issue in 2018. Proposals will be reviewed in early 2018 and one or more will be selected to form a new scientific collaborative program within HESI. While this is not a grant, the selected program will receive support from HESI for scientific program design, coordination, and staffing.



HESI Emerging Issues Process

Learn more about the HESI Emerging Issues Process on our [website](#) or download the proposal form [here](#). The deadline to submit proposals is **15 December 2017**. Don't miss out!

HESI at EUROTOX

Dr. Louise Horsfall (Lecturer in Biotechnology at the University of Edinburgh) delivered the 2017 HESI Combining Interdisciplinary and Translational Expertise (CITE) lecture at EUROTOX in Bratislava on **11 September 2017**. Dr. Horsfall is a recipient of the 2015 University of Edinburgh's Chancellor's Rising Star award and she believes that biotechnology has the potential to transform manufacturing by using waste as a feedstock, rather than it being an end product. Her talk entitled "Synthetic Biology Tools in Biology and Toxicology" addressed how novel interdisciplinary approaches such as synthetic biology can generate exciting new opportunities to address long-standing ecological and human health risks in the environment. For example, engineered organisms can be used to reduce metals to facilitate the bioremediation of waste, water, and land. Equally, synthetic biology offers new opportunities to develop engineered biosensors.

Dr. Ernie Harpur, Chair of the Board of Trustees, introduced and chaired the session. The large audience was captivated by this fascinating lecture and had some interesting questions around how broad adoption and implementation of these approaches may require equally innovative toxicological and risk assessment practices.



Professor Alan Boobis (Imperial College London) presented to a packed room at a session entitled “Hands-On Risk Assessment in the 21st Century: Reports From the Front Line” on **12 September 2017**, which was chaired by Hans Ketelslegers (Concawe) and Ruth Roberts (University of Birmingham). Dr. Boobis opened the session with a presentation on “The HESI RISK21 Project: An Innovative Tool in Risk Assessment.” Professor Bob van de Water (Leiden Academic Centre for Drug Research) then described the EU-ToxRisk project, and Dr. David Bell offered a European Chemicals Agency (ECHA) perspective. Building on this, Hans Ketelslegers (Concawe) talked about frontline experience in conducting risk assessment for complex mixtures. Finally, Andrew Worth from the EU Joint Research Centre rounded out the session with a discussion on “New Approach Methods for Emerging Chemicals Policy Challenges.” A panel discussion followed, in which the audience challenged the speakers on how new science is being integrated into risk assessment.

For more information about RISK21, visit the new website: <http://risk21.org/>.

HESI at SPS

The Safety Pharmacology Society (SPS) recently held its Annual Meeting in Berlin, Germany. The HESI Cardiac Safety Committee presented two posters featuring recent work, including “JTp and Tpe as Biomarkers of Proarrhythmic Risk in Nonclinical Models: Historical Data Evaluation by the HESI Consortium” and “A Clinical and Laboratory Assessment of Zucker Diabetic Fatty (ZDF) Rats on Low or High Fat Diet.” In addition, Dr. Alan Bass, a long-time Cardiac Safety Committee member and prior chair, received the Distinguished Service Award for his contributions to the field of safety pharmacology. Congratulations to Dr. Bass!

Learn more about the meeting [here](#). For more information on the HESI Cardiac Safety Committee, click [here](#).

Establishment of the Eco-TTC Approach for Environmental Risk Assessment of Chemicals: An International Workshop, 18-19 September 2017, Ottawa, Canada.

Approximately 45 invited experts from industry, academia, and government convened in Ottawa, Canada for a 1.5-day workshop to discuss and evaluate the feasibility of the ecological threshold of toxicological concern (eco-TTC) approach for environmental risk assessment. The eco-TTC concept builds on the existing human safety Threshold of Toxicological Concern (TTC) concept, a well-established risk assessment tool for determining a human exposure concentration with negligible risk in the absence of chemical-specific data. The eco-TTC approach has the potential to reduce the need for vertebrate testing (e.g., fish) in many situations and maximize efficient use of existing knowledge with potential for rapid-decision making, among other benefits.

Workshop participants evaluated the newly-developed eco-TTC database and web-based tools through case study work on stakeholder-developed case examples, and held general discussions about the concept and potential applications. Refinements to the database, tools, and approaches were discussed and next steps are under development by the project team. Several presentations on this project will be given at the upcoming SETAC North America Meeting in Minneapolis, MN (see below for details).

This event was sponsored by [the HESI Animal Alternatives in Environmental Risk Assessment Committee](#) with additional support from Environment and Climate Change Canada. For more details, please contact Dr. Michelle Embry, membry@hesiglobal.org.



Upcoming Events

Immunotoxicology Technical Committee Webinar

The Immunotoxicology Technical Committee (ITC) Clinical and Translational Immunotoxicology Working Group is hosting a webinar on “Clinical Immunogenicity of Biotherapeutics: Safety Considerations and Immune Mechanisms” on **12 October 2017** from 11:00 am to 12:00 pm (EST).

For more information or to register, click [here](#) or contact Stan Parish (sparish@hesiglobal.org).

HESI at SETAC North America Meeting



SETAC NORTH AMERICA 38TH ANNUAL MEETING
12-16 NOVEMBER 2017 | MINNEAPOLIS, MN, USA

HESI will be well-represented at the upcoming 38th Society of Environmental Toxicology and Chemistry (SETAC) North America meeting in Minneapolis, MN, USA, on 12–16 November 2017. The following HESI programs will be highlighted at the meeting:

13 November, Poster Presentation MP038: Application of trophic magnification factors (TMFs) under the Water Framework Directive: Some practical advice on selecting and determining a TMF. Presentation by Karen Kidd (McMaster University) on behalf of the Bioaccumulation Technical Committee.

15 November, Platform Presentation 421: Deriving Predicted No-Effect Concentrations in Diverse Geographies for Use in Eco-TTC Estimations. Presentation by Scott Belanger (P&G) on behalf of the Animal Alternatives in ERA Technical Committee.

15 November, Platform Presentation 422: Ecological Threshold for Toxicological Concern (eco-TTC)-Applications for Environmental Risk Assessment in Various Contexts. Presentation by Michelle Embry (HESI) on behalf of the Animal Alternatives in ERA Technical Committee.

15 November, Platform Presentation 459: Communicating Risk Assessment: The RISK21 Framework and Web-Based Tool. Presentation by Michelle Embry (HESI) on behalf of RISK21.

15 November, Poster Presentation WP033: Ecological Threshold for Toxicological Concern (eco-TTC): Exploring the importance of non-standard species. Presentation by Kristin Connors (P&G) on behalf of the Animal Alternatives in ERA Technical Committee.

15 November, Poster Presentation WP037: Optimization and Accessibility of an Ecotoxicological Threshold of Concern (ecoTTC) Database. Presentation by Ryan Otter (MTSU) on behalf of the Animal Alternatives in ERA Technical Committee.

In addition, the following projects with HESI staff as co-authors will be presented:

13 November, Platform Presentation 51: The Bioaccumulation Assessment Tool: Overview and Case Study Application. Presentation by Liisa Toose (ARC Arnot Research & Consulting). *[M. Embry, co-author]*

13 November, Poster Presentation MP030: Critical Evaluation of an In Vitro Biotransformation Rate Database for Humans. Presentation by Karen Foster (KFER Karen Foster Environmental Research; Trent University). *[M. Embry, co-author]*

14 November, Platform Presentation 236: Advancing the Adverse Outcome Pathway Framework - An International Horizon Scanning Approach. Presentation by Carlie LaLone (USEPA). *[M. Embry, co-author]*

15 November, Poster Presentation WP032: ecodatahub: Big data techniques to create actionable ecotox data. Presentation by Amy Beasley (Dow Chemical). *[M. Embry, co-author]*

16 November, Platform Presentation 628: Report on the RIFM/ECETOC Workshop: Developing a strategy to improve the environmental risk assessment of difficult to test multi-component substances. Presentation by Dan Salvito (RIFM). *[M. Embry, co-author]*

From the President

Do **you** have a great idea (aka problem) that needs the attention, intellectual and financial partnership, and outstanding coordination that HESI offers? The strategic vision of HESI is to Convene, Translate, and Protect. The "convening" part is all about matching applied science challenges and enthusiastic participants via HESI's unique public/private partnerships. By bringing that great idea/problem to HESI's Emerging Issues Committee, you can explore all of the opportunities HESI offers to convene those with a similar interests in that problem – and find solutions! The call for issues/challenge statements is open now so this is your chance! See the article above for details or visit the [HESI website](#) to learn more about the process and start moving from problems to solutions. Successful programs such as [Genetic Toxicology](#), [Translational Biomarkers of Neurotoxicity](#), and the [Microbiome](#) all had their origins in the Emerging Issues Committee



Dr. Tim Pastoor
HESI President

ILSI Health and Environmental Sciences Institute (HESI)

1156 Fifteenth Street, NW

2nd Floor

Washington, DC 20005-1743

| 202.659.3306 | 202.659.3617 | HESI@hesiglobal.org | www.hesiglobal.org

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