
2016–2017 Activities and Accomplishments

Committee leaders:

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This scientific program is committed to:

- Ensuring the development of a sound technical basis for alternative test methods as a means to reduce, refine, or replace standard ecotoxicity test procedures around the globe; and
- Providing a forum to coordinate the debates and best emerging practices of the alternatives and animal model development sciences to meet existing hazard assessment, effluent assessment, risk assessment, classification and labeling, and other regulatory needs.

Areas of scientific focus:

- Developing alternatives to *in vivo* acute and chronic ecotoxicity tests.
- Examining alternative methodologies for effluent assessment.

Why get involved?

Through your participation in the committee, you are part of an international team of scientists and regulators working toward the effective development of alternative methodologies for environmental risk assessment.

Key accomplishments:

- *Effluent Assessment*. An international workshop on “Concepts, Tools, and Strategies for Effluent Testing” was held 2–4 March 2016. The workshop objectives were to review the current state of the science in effluent testing, identify novel approaches, and discuss strategies to reduce the environmental impacts of effluents integrating alternative approaches for chemical risk assessment. A poster on the workshop and the survey results was presented at the SETAC Europe meeting (May 2016), and platform presentations were given at the SETAC World Congress meeting (November 2016) and the SETAC Europe meeting (May 2017). A revised survey tool was developed as a result of the workshop discussions that will provide additional insight into the state of the science of effluent testing worldwide. The survey was distributed to key stakeholders in August 2016. Additional follow-up from the workshop includes a perspectives article that will highlight workshop outcomes and identify the need for a regular community of practice on alternative methods for effluent assessment, which will be submitted for publication in 2Q 2017. A critical review summarizing the workshop conclusions and presentations is also planned and will be submitted in 4Q 2017.
- *Ecotoxicological Threshold of Concern (eco-TTC)*. A HESI-led project on developing an ecotoxicological threshold of toxicological concern (TTC) began in 2014, and a manuscript outlining the group’s plans was published in early 2015. Three manuscripts summarizing the results of the group’s work will be submitted for publication in 2Q 2017. A stakeholder workshop is planned for 4Q 2017 to evaluate the approach with a multi-stakeholder group using case examples. The group provided funding in mid-2016 (to R. Otter, Middle Tennessee State University) to develop a web-based platform for the database (currently housed in Microsoft Access) with query and analysis tools. This database and associated tools will be made available to key stakeholders and will serve as the genesis for the workshop discussions and case studies. Presentations on this work were given at the International Society of Exposure Science Meeting (October 2016), SETAC World Congress (November 2016), and SETAC Europe (May 2017).

The Committee's focus for May 2017–May 2018:

- *Effluent Assessment*. Follow-up efforts from the workshop will continue, including the completion of a perspectives article that will highlight workshop outcomes and identify the need for a regular community of practice on alternative methods for effluent assessment. A critical review summarizing the workshop conclusions and presentations is also planned. Both manuscripts will be submitted for publication in 2017, and additional next steps will be discussed following their completion.
- *Ecotoxicological Threshold of Concern (eco-TTC)*. Several manuscripts summarizing the results of the group's work will be submitted for publication in 2Q–3Q 2017, and the work will be presented at several international meetings. An international stakeholder workshop is planned for late 2017 to test the approach, potentially developing several case examples.

Recent publications:

Kienzler A, Barron M, Belanger S, Beasley, A, Embry M (2017) Mode of action (MOA) assignment classifications for ecotoxicology: an evaluation of approaches. *Environ Sci Technol*. Submitted.

2016–2017 Participating organizations

Environment and Climate Change Canada
European Commission, Joint Research Center, Institute for Health and Consumer Protection,
European Center for the Validation of Alternative Methods
ExxonMobil
L'Oréal Corporation
Mermeyde
Middle Tennessee State University
Procter & Gamble Company
Research Institute for Fragrance Materials (RIFM)
Sanofi
Shell Chemicals, Ltd.
Texas Christian University
The Dow Chemical Company
UK Home Office
University of Aarhus
University of Bern
University of Guelph
University of Heidelberg
University of Miami, Ohio
US Environmental Protection Agency

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