INTERNATIONAL SOCIETY OF EXPOSURE SCIENCE

Pre-Conference Workshops





The International Society of Exposure Science (ISES) Annual Meeting Technical Organizing Committee (TOC) is excited to host Pre-Conference Workshops in conjunction with the In-Person Annual Meeting in Lisbon, Portugal. Some Pre-Conference Workshops will be offered virtual and others will be inperson.

Pre-Conference Workshops are led by experts in the field of exposure science, with offerings in thematic areas such as exposure assessment, exposure-related data (sources and analysis), environmental justice, modeling, new methods and tools and so much more. The workshops are offered as an extension of the annual meeting educational content.

Registration is separate from the Annual Meeting registration.



Title: Presenting at a Conference: Tips and Feedback

2 September, 11 AM – 1 PM ET

Virtual only

Presenter: Alison Connolly, Courtney Carignan and the ISES Mentorship Committee Fee: Complimentary

Description: This workshop will help attendees learn how to develop and execute a highquality conference presentation for the ISES 2022 Annual Meeting. The registrants will be asked to review a previously recorded seminar and prepare their presentation. Each participant will have an opportunity to show their oral/poster presentation, to be evaluated and receive feedback from tenured members of the Society.

Title: UNEP's USEtox consensus exposure and toxicity model for chemical substitution, risk screening and LCA

19 September, 10 AM ET - 1 PM ET

Virtual only

Presenters: Peter Fantke, Olivier Jolliet, Nicolò Aurisano Fee: \$50

Description: The aim of this course is to introduce participants to the exposure science methods used in life-cycle assessment, comparative risk assessment, and chemical substitution. Participants will learn to use and evaluate basic tools for mass-balance, fate modelling, near-field and far-field exposure and intake fraction, and effect factor estimation. Participants will review underlying model assumptions and evaluate data needs along with data and knowledge gaps in these assessments. The course is intended for environmental science practitioners interested in the scientific fundamentals of chemical impact assessment. Only basic background knowledge of environmental modelling, risk assessment or life cycle assessment is considered necessary.



Title: Meet & Greet, Network with exposure scientists from around the world! 20 September, 10 AM ET - 11 AM ET

Virtual only

Presenters: Alison Connolly, Urs Schluter and the Mentorship Committee Fee: Complimentary

Description: The ISES Mentorship Committee is hosting a virtual meet and greet to prepare and get excited about the in-person annual meeting. This free event is open to all and it will be a good opportunity: * To meet exposure scientists from around the world * To meet people who are planning to attend the ISES 2022 conference * For students who would like to meet mentors within their field * For new members to meet other exposure scientists * For all who would like to brush up on their social skills

Title: Hands on analysis of mass spectrometry-based exposomics data using ADAP-BIG and ADAP-KDB

21 September, 10 AM – 12 PM ET

Virtual only

Presenters: Xiuxia Du, Aleksandr Smirnov

Fee: \$50

Description: High throughput gas chromatography (GC) and liquid chromatography (LC)-mass spectrometry (MS) technologies have made it possible to conduct large-scale exposomics studies. These studies can involve thousands of samples and produce hundreds of gigabytes of raw LC-MS and GC-MS data. Such a large amount of data raises fundamentally new challenges for software tools and cloud resources to preprocess raw data from instruments and annotate the resulting signals. These challenges include handling big data on available computing workstations, aligning data from multiple batches of samples, performing batcheffect correction, and others. This workshop will introduce a suite of software tools and cloud resources specifically designed to handle mass spectrometry exposomics data from largescale studies.



Title: How to access open air quality data from the OpenAQ Platform 22 September, 10 AM – 12 PM ET

Virtual only

Presenters: Russ Biggs, Chisato Calvert Fee: \$50

Description: The workshop will open with an overview of the OpenAQ Platform, the importance of open data, and its diverse applications in the scientific field. Participants will then have an opportunity to learn about how to access air quality data through a step-by-step interactive tutorial.

Title: Techniques of Sample and Analysis of Biological Aerosols 25 September, 8:30-12:30

In-person

Presenter: Ana Rule

Fee: \$50

Description: Bioaerosols are airborne particles (aerosols) of biological origin, such as microorganisms, toxins, or fragments of living organisms that are present in the environment. Sources of bioaerosol exposure include human and animal activity, and range from agricultural, nosocomial, municipal, and industrial environments. Furthermore, basic environmental factors, such as ventilation, temperature and relative humidity, can significantly affect their growth and dispersion. Although interest in assessment of exposure to bioaerosols increased rapidly due to COVID-19, there are still important knowledge gaps, especially concerning infectious and respiratory diseases.



Title: Modelling of consumer aggregate exposure using ConsExpo and PACEM 25 September, 8:30-12:30

In-person

Presenters: Wouter ter Burg, Christiaan Delmaar

Fee: \$50

Description: The course will provide brief introductions to consumer exposure modelling and aggregate exposure concepts. You will learn about the advantages and difficulties modelling can present when performing aggregate exposure assessments. These learnings will be brought into practice using the ConsExpo Web and PACEM web tools where the participants will get hands-on experience.

Title: Improving task-based exposure assessment accuracy using the Structured Deterministic Model (SDM) 2.0 25 September, 8:30-12:30, 13:30-17:30

In-person (8 hour workshop total)

Presenters: Susan Arnold, Mark Stenzel, Gurumurthy Ramachandran Fee: \$100

Description: This workshop will focus on a sub-specialty field of exposure science dealing with work related exposures to chemicals. Objectives of the workshop include: * Assessing exposures in workplaces requires strategies and tools to make effective and efficient decisions in rapidly evolving domestic and international environments. Chemical regulations such as REACH, CEPA and the proposed overhaul of the Toxic Substances Control Act (TSCA) in the US are impacting large and small businesses alike. Consequent pressure from stakeholders has motivated many occupational/industrial hygienists and their organizations to identify more efficient, comprehensive methods for assessing and managing exposure risk. * By developing and integrating new deterministic tools such as the Structured Deterministic Model 2.0, with existing tools using a Bayesian data analysis, a strategy for making more accurate, consistent, and efficient exposure risk judgments. * During this workshop, participants will learn how to apply this user-friendly SDM tool to make more accurate task-based exposure judgments.



Title: Strategies for enhancing peer review form an editor's perspective 25 September, 13:30-17:30

In-person

Presenters: Windy Boyd, Kristen Cosselman

Fee: Complimentary

Description: Peer review is a critical quality control mechanism in the advancement of science. However, few researchers receive formal training on how to review and critique a scientific manuscript for publication. The interdisciplinary field of exposure science makes peer review more challenging but also more necessary; contributions from and communication among experts in more than one subject area is often required. We intend to provide workshop participants with knowledge, skills, and strategies to maximize the quality and utility of their reviews. Stronger reviewing skills will also help authors improve their own manuscripts.

Title: Stoffenmanager®: a validated and regulatory accepted chemical workplace exposure management tool combining latest exposure intelligence and smart IT 25 September, 13:30-17:30

In-person

Presenters: Henri Heussen, Dorothea Koppisch

Fee: \$50

Description: Due to the enormous amount of chemicals used in all kind of different exposure scenario's, chemical exposure assessment by traditional methods like personal air sampling and / or biological monitoring will never be feasible for all workplaces. Validated exposure assessment tools which err on the side of caution can help filtering out safe from non-safe workplaces. In such a tiered business wise chemical management approach modelled non-safe workplaces warrant further investigation by traditional methods.

