



SETAC / iEOS - Joint Focused Topic Meeting on Environmental and (eco)toxicological Omics and Epigenetics: Science, Technology and Regulatory Applications

Tuesday 13 September

Session 3: (Eco)toxicological omics

Co-chairs: Philipp Antczak (University of Liverpool, UK) & Karel De Schamphelaere (Ghent University, Belgium)

09:00 Session intro (co-chairs)

09:05 14 | Network analysis predicts genes associated with silver toxicity in *Chlamydomonas reinhardtii* - Anze Zupanic (Eawag, Switzerland)

09:25 15 | Ionising radiation induced stress responses in the macrophyte *Lemna minor*: comparison at different levels of biological complexity, from growth to gene expression - Nele Horemans (Biosphere Impact Studies, SCK•CEN, Belgium)

09:45 16 | Using transcriptomics to understand crustacean intersexuality: untangling feminisation, demasculinisation, parasitic and environmental influences - Stephen Short (Cardiff University, School of Biosciences, UK)

10:05 17 | Global transcriptional responses to repeated copper exposures in the three-spined stickleback (*Gasterosteus aculeatus*) - Eduarda M. Santos (University of Exeter, Biosciences Department, UK)

10:25 Session 3 poster spotlights: P07, P08, P16, P17

10:45 *Coffee break and posters*

11:25 18 | The Value of (Eco)Toxicogenomics Realized: From Zero to Validated Adverse Outcome Pathway (AOP) with Genomics Guiding the Way - Kurt A. Gust (US Army, Engineer Research and Development Center, USA)

11:45 19 | Towards developing a Framework for transcriptomics and other Big Data analysis for regulatory application - Tim Gant (Public Health England, UK)

12:05 20 | SETAC Global Advisory Group OMICS: Cutting-edge science to solve real world problems - Ben Brown (Lawrence Berkeley National Laboratory, USA)

12:15 21 | Delayed impacts of developmental exposure to 17- α -ethinylestradiol on the phenotype and the proteome of the self-fertilizing fish *Kryptolebias marmoratus* - Anne-Sophie Voisin (University of Namur, Belgium)

12:35 22 | Shotgun proteogenomics & multiplexed targeted proteomics define robust, specific protein biomarkers from non-model species for environmental monitoring - Duarte Gouveia (Irstea, Unité de Recherche MALY, Laboratoire d'écotoxicologie, France)

12:55 *Lunch and posters*

14:10 23 | Is protein carbonylation a sensitive effect marker of gamma irradiation damage? Comparison between acute and chronic irradiation - Cecile D. Dubois (Institut de

Radioprotection et de Sûreté Nucléaire (IRSN), Laboratoire d'ECOTOxicologie des radionucléides (LECO), France)

- 14:30 24 | Using an integrative OMICs approach to unravel Glyphosate mechanisms of toxicity in *Folsomia candida* - Tiago Simões (MARE–Marine and Environmental Sciences Centre, ESTM, Polytechnic Institute of Leiria, Portugal)
- 14:50 25 | Multi-species metabolomics to enable the design of cost-effective biomonitoring programs for determining the impacts of pollution in estuarine environments - Sara Long (Centre for Aquatic Pollution Identification and Management, University of Melbourne, Australia)
- 15:10 26 | Peptidomics of the zebrafish: discovering neuropeptides by LC-MS - Steven J. Husson (Systemic Physiological & Ecotoxicological Research, University of Antwerp, Belgium)
- 15:30 *Coffee break and posters*
- 16:10 27 | An integrated 'omics approach to elucidate low-dose effects of xenobiotics in zebrafish larvae (*Danio rerio*) - Susie S.Y. Huang (AXYS Analytical Services Ltd., Canada)
- 16:30 28 | **Keynote speaker:** Addressing a key challenge in non-targeted environmental metabolomics: identifying the parts list through Deep Metabolome Annotation - Mark Viant (University of Birmingham, UK)
- 17:00 29 | **Conference keynote speaker:** Epigenetic basis of honeybee development, behavior and health - Brian Herb (Johns Hopkins School of Medicine, USA)

Socials

- 17:30 *Poster social (until 18:30)*
- 19:30 *“Gentse Gruut” Brewery visit (including dinner) and pub crawl (pre-registration required, onsite registration is NOT possible)*