

3Rs IN TOXICOLOGY

PROMISES AND DIFFICULTIES

Webinar on Zoom, November 7 at 14:00 - 16:00 (CET)

To join online use this link: <https://stockholmuniversity.zoom.us/j/61438218184>

Program

14:00 Welcome

Oskar Karlsson, SFT Chair

Sara Moses, SFT Board member

14:10 Toward Toxicology for the 21st Century 2.0

Thomas Hartung, Department of Environmental Health and Engineering, Johns Hopkins Bloomberg School of Public Health, USA

14:30 Transition from animal testing to non-animal methods reflecting human biology

Andy Forreryd, SenzaGen, Lund

14:50 Toxicological studies *in vivo* – how can we refine our experiments?

Petronella Kettunen, Department of Neurochemistry and Psychiatry, University of Gothenburg

15:10 3Rs in drug development – the regulatory perspective

Camilla Svensson, Swedish Medical Products Agency

15:30 30 min Discussion

Chair Sara Moses



Thomas Hartung, MD PhD, is the Doerenkamp-Zbinden-Chair for Evidence-based Toxicology in the Department of Environmental Health and Engineering at **Johns Hopkins Bloomberg School of Public Health**, Baltimore, with a joint appointment at the Whiting School of Engineering. He also holds a joint appointment for Molecular Microbiology and Immunology at the Bloomberg School. He is adjunct affiliate professor at Georgetown University, Washington D.C.. In addition, he holds a joint appointment as Professor for Pharmacology and Toxicology at University of Konstanz, Germany; he also is Director of Centers for Alternatives to Animal Testing (CAAT, <http://caat.jhsph.edu>) of both universities. CAAT hosts the secretariat of the Evidence-based Toxicology Collaboration (<http://www.ebtox.org>) and manages several collaborative programs. As PI, he headed the Human Toxome project funded as an NIH Transformative Research Grant and the series of annual Microphysiological Systems World Summits starting in 2022 by 52 organizations. He is Field Chief Editor of *Frontiers in Artificial Intelligence*. He is the former Head of the European Commission's Center for the Validation of Alternative Methods (ECVAM), Ispra, Italy, and has authored more than 620 scientific publications with more than 41,000 citations (h-index 105).



Andy Forreryd has a PhD in Immunotechnology from Lund University, and is Scientific Liaison and Key Account Manager at SenzaGen AB, Lund. Animal testing for finished cosmetic products has been prohibited in the EU since 2004 and for cosmetic ingredients since 2009. Dr Forreryd will discuss the transition from animal testing to non-animal methods reflecting human biology, based on their recently approved OECD test guideline for non-animal skin sensitization.



Petronella Kettunen is an associate professor in neurobiology at the Department of Neuroscience and Physiology at University of Gothenburg and the co-director of the Centre for Cognitive Medicine. She is also the project leader of the Gothenburg Mild Cognitive Impairment study at the Memory Clinic in Gothenburg and responsible for the study biobanks. Her lab is using the zebrafish as well as clinical cohorts to understand the healthy and diseased brain, in particular in neurodegenerative disorders. Current research in the Kettunen lab is focused on the molecular signaling of microglia and neuroinflammation by combining clinical and preclinical data. Moreover, she is leading a Formas-funded project to evaluate welfare parameters for zebrafish and to establish of guidelines for zebrafish handling and housing that can improve their welfare as research animals. The projects focus on innovation, diagnostics and drug discovery, where collaborations with the industry play an important role. The research in the Kettunen lab is externally funded (e.g. the European Commission, Vinnova, Formas, Region Västra Götaland and Swedish private foundations).



Camilla Svensson obtained her PhD within the field of immunotoxicology in the Faculty of Pharmacy at Uppsala University. She has been working for 15 years as a nonclinical assessor at the Swedish Medical Products Agency and now holds a position as Scientific Director in Pharmacology and toxicology. She is also a member of the Joint 3Rs Working Party at the European Medicines Agency.