Lunch Symposium at SETAC 2025

Integrating automation and AI in NAMs:
The future of toxicology using alternative models

Faster, cheaper, more ethical toxicology testing.

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SETAC Europe 35th Annual Meeting

Wednesday 14th May at 12:55 until 14:25 (1h30 program), Hall L3, Level 1, ACV

New Alternative Methods (NAMs) are advancing toxicology by integrating automation and cutting-edge technologies to reduce reliance on traditional animal models. Advances in robotics, microfluidics, high-throughput screening, and AI-driven data analysis are accelerating toxicity testing using small model organisms such as the embryos of zebrafish, Xenopus, and medaka, as well as the nematode, *C. elegans*. This workshop will explore how automation improves reproducibility, scalability, and regulatory acceptance of non-mammalian testing strategies. Experts will showcase state-of-the-art tools that streamline experimental workflows, improve data integration, and drive innovation in toxicological assessments.

Agenda

Time	Speaker	Topic
12:55 - 13:05	Ana Hernando, Bionomous	Welcoming
13:05 - 13:15	Evangelia Martini, Nagi Bioscience	New Alternative Methods (NAMs) introduction.
13:15 - 13:25	Dr. Gregory Lemkine, Watchfrog Laboratories	How automation bolsters the ethical value of aquatic embryos for testing.
13:25 - 13:35	Dr. Stefan Scholz, Department Ecotoxicology, Helmholtz Centre for Environmental Research-UFZ	High-content screening in zebrafish using automated imaging and feature annotation.
13:35 - 13:45	Frederic Neuzeret, ViewPoint	Toxicological testing using high-troughput behaviour and cardio analysis.
13:45 - 13:55	Dr. Nivedita Chatterjee, International Iberian Nanotechnology Laboratory (INL)	Advancing Neuro-Nanosafety with the Bridging Model and NAM toolkit - *C. elegans*.
13:55 - 14:20	All	Round table.
14:20 - 14:25	Ana Hernando, Bionomous	Closing remarks.

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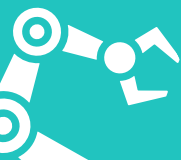
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Speakers

Evangelia Martini

Eva Martini is a Translational Science Specialist at **Nagi Bioscience**, where she transforms complex R&D findings into compelling narratives. Her MSc in Medical Biology from the University of Lausanne (2020) with specialization in Immuno-oncology, combined with her subsequent work as a research investigator in preclinical drug discovery, has equipped Eva with deep understanding of scientific processes and data interpretation skills. In her current role, Eva applies her analytical mindset and communication skills to showcase innovative technologies and their real-world applications, effectively connecting scientific breakthroughs with their commercial potential.

Dr. Gregory Lemkine

Director and co-founder of **Laboratoire Watchfrog**. Dr Lemkine has a thorough understanding of the technical, scientific and marketing of biotechnologies and completed a training/action cycle of HEC school of management. Prior to inception of the company, Dr Lemkine was in charge of technology transfer in the Museum d'Histoire Naturelle in Paris. He holds a PhD in Physiology and has published many articles in international scientific journals.

Dr. Stefan Scholz

Dr. Stefan Scholtz is the **Deputy Head of the Department of Bio-analytical Ecotoxicology at the Helmholtz Centre for Environmental Research – UFZ** in Leipzig. His research focuses on the mechanisms of chemical action, high-content analysis, and the development of automated bioassays, with a strong emphasis on alternatives to animal testing for chemical effect assessment and biomonitoring. After completing his diploma at Ruhr University Bochum and a doctoral thesis on CYP1A induction in rainbow trout at Martin-Luther University Halle-Wittenberg and UFZ, Dr. Scholtz held academic and research positions at the University of Dresden, the US Environmental Protection Agency, and the University of Nagoya. Since 2002, he has been a key contributor to the UFZ's ecotoxicological research. His work has been recognized with awards including a scholarship from the University of Nagoya and the OECD Cooperative Research Programme.

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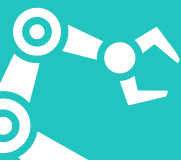
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Speakers

Frederic Neuzeret

Frederic is currently managing the sales for the Europe and APAC areas. He also acts as the Chief Product Officer for Life Sciences & Phenotyping solutions at **ViewPoint Behavior Technology**. Graduated from an electronic and digital technology engineering school, he has played different roles over the past 25 years, from technical design and development tasks to business development and CPO.
At ViewPoint, our DNA is to design innovative solutions in collaboration with the researchers from different fields. This is why we have developed tools, software and devices for a wide range of activities, from neuroscience to plant phenotyping and water quality biomonitoring.

Dr. Nivedita Chatterjee

Nivedita Chatterjee is a **Research Scientist in the Nanosafety group at INL (International Iberian Nanotechnology Laboratory)**, Braga, Portugal. Her research focuses on the underlying mechanisms and molecular toxicology of nanomaterials, with particular emphasis on genotoxicity, epigenetic alterations, and neurotoxicity, using both *in vitro* systems and the *C. elegans* model.

Ana Hernando Ariza

Ana Hernando Ariza is the Chief Operating Officer and co-founder of **Bionomous**, where she plays a pivotal role in aligning the company's technology with customer needs. She holds a degree in Biology from the Universidad Autónoma de Madrid (2018) and specialized in Molecular and Cellular Biology. She later earned a master's in Medical Biology, with a minor in Neurobiology, from the Université de Lausanne (Unil). Ana combines deep scientific expertise with strategic leadership to drive Bionomous' growth and innovation.