



EU's €60m Effort to Promote Non-Animal Toxicity Testing: ASPIS Cluster Participates at 2023 Society of Toxicology Annual Meeting and ToxExpo in Nashville

The ASPIS Cluster, bringing together three consortia (PrecisionTox, RISK HUNT3R and ONTOX) funded by the European Commission's Horizon2020 Programme, will participate for the first time this year in the 62nd Annual Meeting of the Society of Toxicology and ToxExpo, which will take place on 19-23 March at the Music City Centre in Nashville, Tennessee. ASPIS represents more than 70 institutions across 16 European countries, the UK and the US delivering on a €60m investment in providing timely answers about chemicals' effects on human health.

ASPIS will showcase its projects aimed at advancing the safety assessment of chemicals without the use of animal testing from Monday to Wednesday at **9:00-16:00** in **Booth No: 1435** at the Exhibit Hall. Several informational materials will be available at the booth, where visitors will also have a chance to meet with two PrecisionTox representatives: Jonathan Freedman (ASPIS Working Group Coordinator) and Joe Shaw (Indiana University Bloomington, U.S. Lead of PrecisionTox International Cooperation Sub-Committee).

"We are thrilled to be part of this international toxicology event in the US. This is the first time that ASPIS representatives come together and can spread the word about our Cluster outside the EU. Together, we represent the EU's €60m effort towards sustainable, animal-free, and reliable chemical risk assessment of tomorrow. We are looking forward to connecting with fellow toxicologists and scientists and sharing the know-how from ASPIS on our next generation risk assessment framework based on New Approach Methodologies (NAMs), encompassing in vivo to in silico technologies", said **John Colbourne**, who recently assumed the rotating chairmanship of the Cluster.

The annual event will host more than 70 scientific and featured sessions, 2,000 presentations, bringing together more than 5,000 toxicologists to share the latest science and technology in the field, to make new connections, gather with friends, and engage in mentoring and professional development. It will also feature the three-day ToxExpo, consisting of 250 companies and organisations that support toxicologists and the toxicology community. Exhibitors include research organisations, government agencies, laboratory suppliers, drug developers, consulting firms, and academic institutions.





A new Era of Toxicology: Goals and Activities of the ASPIS Cluster

ASPIS, the joint collaboration of the Horizon 2020-funded projects PrecisionTox (<https://precisiontox.org>), RISK-HUNT3R (<https://www.risk-hunt3r.eu>) and ONTOX (<https://ontox-project.eu>), is committed to utilising all available knowledge across disciplines to improve accuracy, speed, and affordability of chemical safety testing without the use of laboratory animals. Building on advances in the omics fields including, genomics, transcriptomics, metabolomics; robust in vitro and in silico methodologies; and artificial intelligence (AI) analysis strategies; the Cluster provides NAMs to rapidly accelerate and improve chemical risk assessment in the EU and beyond.

The safety of many thousands of chemicals in market products remains untested due to the high cost and slow pace of traditional animal testing. By demonstrating and validating NAMs, ASPIS introduces a new era of toxicology in which the biological effects of chemicals can be understood on a mechanistic level. This knowledge allows better informed decisions that safeguard human and environmental health while facilitating the development of safe and sustainable products.

Launched in July 2021, the Cluster functions through Working Groups, formed by members of the three projects: Chemical Selection, Risk Assessment, Quantitative Adverse Outcome Pathway, Omics, Kinetics & Exposure, Computational Approaches, Communication & Dissemination, and F.A.I.R Shared Database. Under the chairmanship of the Joint Research Centre (JRC), ASPIS members regularly meet with experts from the European Commission to discuss timely regulatory issues related to the EU Chemicals Strategy for Sustainability.

One of the key cross-consortia successes is the development of two case studies revolving around two toxicological endpoints: steatosis and developmental neurotoxicity (DNT). The former provides an opportunity to develop NAMs that can be used in future ASPIS-wide projects and by the risk assessment community while developing information pipelines for data generation and sharing. The latter makes use of and contributes to data collection from the three consortia members and other stakeholders, including the JRC, National Toxicology Program (NTP), the EU-co-funded Partnership for the Assessment Risk from Chemicals (PARC), US Environmental Protection Agency (EPA) and the European Chemicals Agency (ECHA). In addition, ASPIS has developed a joint Next Generation Risk Assessment (NGRA) framework, which will establish approaches for the safety assessment of chronic adverse health effects associated with chemical exposure. Last but not least, the ASPIS Academy, announced at the first annual meeting of the Cluster in Sitges, Spain on 23-24 November 2022, has been providing training courses, research exchanges, organisation of dedicated discussion fora and tailored sessions at open symposia.

Link to the **annual report of the ASPIS Cluster**: <https://aspis-cluster.eu/annual-reports/>

