# Scientific Program
## Toxicology – Multidisciplinary Science Leading to Safer and Sustainable Life
## Ljubljana, Slovenia, 10 –13 September 2023

**Continuing Education Courses (CECs)**

CEC01 | A hands-on introduction to applied artificial intelligence in toxicology
CEC02 | Characterizing, validating, and reporting physiologically-based kinetic models – hands on training on the new PBK model OECD guidance
CEC03 | Building a NAM-based IATA for chemical risk assessment
CEC04 | Risk perception and risk communication of chemical substances
CEC05 | Particle and fiber toxicology
CEC06 | Recent perspectives for the safe use of pesticides in agriculture

**Sessions**

S01 | Human biomonitoring – a view to the future based on current achievements
S02 | Implementation of new approach methods into regulatory risk assessment using case studies
S03 | Current and future perspectives on the extended one-generation reproductive toxicity study (EOGRTS)
S04 | Safety aspects of cannabidiol (CBD) applications
S05 | Consideration of the endogenous exposome in risk assessment
S06 | Chemical emergencies – public health management and the role of poison centers
S07 | Involvement of mitochondria in adverse drug reactions
S08 | Skills for the early career toxicologist
S09 | Current use of NAMS/alternatives in DART testing
S10 | Pathology and adverse outcome pathways
S11 | Contact allergen potency: the missing piece in the huge puzzle of alternative methods
S12 | Finding synergies for 3Rs – toxicokinetics, physiologically-based kinetic (PBK) models and read-across
S12A | Regulating inhaled copper particles: Time for an updated Occupational Exposure Limit?
S13 | Acceptance and use of in vitro methods: a perspective from various chemical sectors
S14 | NAM mechanistic information for the risk assessment of chemical mixtures
S15 | Next generation risk assessment of food chemicals, environmental contaminants and pharmaceuticals using open-source modelling platforms: perspectives from regulatory agencies, academia and industry
S16 | Organ-on-a-chip and the developing role in early drug development
S17 | Critical organs and exposure windows for developmental immunotoxicity assessment
S18 | Uncertainty in chemical risk assessment – identifying, evaluating, reducing
S19 | Micro-and nano-plastics in our environment: presence and potential impact
S20 | Are diseases and conditions related to hormone imbalance really increasing?
S21 | Environmental chemical mixtures and cancer hallmarks – new developments and open questions
S22 | Role of immunity and contribution of immunotoxicity in the identification of non-genotoxic carcinogens
S23 | Towards quantitative adverse outcome pathway networks
S24 | Toxicogenomics: breaking barriers for regulatory implementation
S25 | Re-emerging concerns associated with Phytotoxins
S26 | Translational Advanced Platforms
S27 | Ontologies as translational tools in toxicology
S28 | HOT TOPIC: Warfare agents
S29 | Current issues concerning air pollution

**Scientific Program**
**Toxicology – A Quest for Safer Chemicals and Medicines**
**Copenhagen, Denmark, 8 –11 September 2024**

**Continuing Education Courses (CECs)**

CEC01 | Adverse Outcome Pathways: Systematic methods for AOP development & utilization of new technologies and tools
CEC02 | Developmental and Reproductive Toxicology (DART)
CEC03 | Therapeutic Vaccines: how to assess their safety from a toxicology perspective, including species selection
CEC04 | Toxicology – Environmental Pollutants
CEC05 | The open science movement: challenges and opportunities for toxicology

**Sessions**

S01 | Complex chemical mixtures: Assessment of chemical mixture drivers and adverse human health and environmental effects
S02 | Data science in drug discovery and development
S03 | PFAS compounds and Immunotoxicity
S04 | New developments in micro- and nanoplastics research
S05 | Young scientist session: emerging researchers in the field of in vitro and in silico toxicology
S06 | Consideration of dose-response in the assessment of genotoxic carcinogens
S07 | Emerging technologies in pharmaceutical preclinical testing
S08 | Innovative in vitro screening tools for assessing the risk of immunotoxic chemicals
S09 | Advances in class-based and grouping approaches to chemical assessment
S10 | Practical Application of New Approach Methodologies (NAMs) for human health risk assessment
S11 | New era of cardiotoxicity risk assessment Where we are, challenges and opportunities
S12 | Skills for Early Career Toxicologists
S13 | Integrating Exposome and Risk Assessment Approaches: A Joint Strategy for Chemical Mixture Assessment
S14 | New insight into mechanisms of food-borne chemical carcinogens
S15 | Ontology-driven and artificial intelligence-based repeated dose toxicity testing of chemicals for next generation risk assessment
S16 | PFAS and health: state-of-the-art in some areas of controversy Toxicology – a quest for safer firefighting
S17 | Advances and Applications in Quantitative Systems
S18 | Toxicology to Support Chemical Safety Assessment
S19 | Getting scientific confidence for NAM-based regulatory assessments
S20 | Opportunities and challenges for PB(P)K models to uncover the role of maternal transfer in developmental toxicity
S21 | Microphysiological systems as emerging tools in predictive toxicology
S22 | What's new for addressing safety: a multi stakeholders' perspective
S23 | Bringing NGRA to life – a global joint effort for putting next-generation risk assessment into practice
S24 | New approach methods for risk assessment of thyroid disrupting chemicals
S25 | Towards the implementation of virtual control groups – regulatory and scientific challenges
S26 | Risk assessment under the real-life risk simulation (RLRS) approach – new technologies and mechanistic data
S27 | Interindividual variability in toxicokinetics and toxicodynamics in chemical safety assessment
S28 | HOT TOPIC: How to build trust in artificial Intelligence for Toxicology?
S29 | Integration of developmental neurotoxicity data across adverse outcomes

**Continuing Education Courses (CECs)**

CEC01 | Challenges in the identification of chemical respiratory allergens
CEC02 | Developmental Neurotoxicity (DNT): bridging from mammal to cellular behavior
CEC03 | Using quantitative modeling to predict exposures and support safety assessment
CEC04 | How to assess the internal validity of toxicokinetic studies
CEC05 | Regulatory Toxicology in the context of the EU Legislations
CEC06 | Toxicities from the emerging new psychotropic drugs

**Sessions**

S01 | Exposomics and telomeres
S02 | Assessing and Communicating Uncertainty in Next Generation Risk Assessment
S03 | Botanical safety: toxicological methods for evaluating complex mixtures
S04 | Carcinogenicity testing after the ICH S1B revision - where are we now?
S04A | Toxicology regulatory angle and Gen AI (by Elsevier)
S05 | Mechanical-driven carcinogenesis and implications for organ-on-chip development
S06 | Dose level selection for Developmental and Reproductive Toxicology (DART) studies under REACH
S07 | Potential developmental neurotoxicity of glyphosate. Can the available evidence fill this data gap identified during the peer review process in the EU?
S08 | Cardiotoxicity: A roadmap to regulatory acceptance. Where we are and future steps.
S09 | Advances in Regulatory Science with NAMs and Animal Models
S10 | Crossing Boundaries: Non-Animal Methods Linking Human and Environmental Health
S11 | Current update and future perspectives on in vitro inhalation toxicity testing
S12 | New approaches of epigenetic mechanisms in toxicology
S13 | New Approaches Methodology (NAM) in Immunotoxicology: from in vitro to risk-assessment
S14 | The Impact of Interspecies Differences on ADME Processes
S15 | The Virtual Human in Toxicology
S16 | Biopesticides: how to evaluate the safety
S17 | Fundamentals and Evolving Uses of Cell Painting in Toxicology Studies
S18 | Global Coalitions are Essential to Advancing New Approach Methods for Chemical Risk Assessment
S19 | The mitochondria in toxicology
S20 | Towards Inclusive Toxicology: Bridging Diversity in Research and Practice
S21 | How safe is cannabidiol (CBD)?
S22 | Advanced human liver test systems for drug and chemical safety assessment
S23 | HOT TOPIC: Safety and Toxicology Issues Related to microRNA and mRNA Applications in Medical Practice
S24 | Accounting for the role of time in the development of toxicity in the context of next generation risk assessment
S25 | Beyond the first hype: real-life applications of artificial intelligence in contemporary toxicology and risk assessment
S26 | Thyroid-hormone related neurodevelopmental toxicity
S27 | The gut microbiome and its implementation in the risk assessment of xenobiotics: where are we now and where are we going?
S28 | New approaches to assessing and predicting CNS injury
S29 | Toxic talk: cellular communication as a revisited target of toxicity