

*This Congress is supported by donations or purchase of exhibition space by the companies listed in the Congress App. This support is limited to meeting the cost of the Congress, with no input into the scientific programme. Whilst the overall programme has been designed based on the principles of Equality, Diversity and Inclusion, depending on the symposia that delegates select to attend, some imbalance from an EDI perspective may be apparent.*

### Day 1 - Wednesday 7th May

09:00 – **Registration open for Continuing Education Programme and Congress delegates | Level 13**  
*Light breakfast items available*

**10:00 – 12:00** **Continuing Education Programme – Pharmaco/toxicokinetics: The application, challenges and solutions for modelling | Space 1 & 2, Level 13**

Chair: Georgia Reynolds (Unilever) and Claire Pottle (Exponent)

10:00 – 10:10 Session overview and aims – Georgia Reynolds (Unilever) and Claire Pottle (Exponent)

10:10 – 10:35 Introduction to toxico/pharmacokinetics – Lorraine Britton (Sequani)

10:35 – 11:00 Metabolism, characterisation and challenges – Donna Smith (OMass Therapeutics)

11:00 – 11:25 Data application in industry – Laura Penn (Kalvista)

11:25 – 11:50 Physiologically based kinetic (PBK) modelling in Next Generation Risk Assessment of chemicals – Ans Punt (Unilever)

11:50 – 12:00 CEP reflection and discussion

11:00 – 12:00 **BTS Scientific Subcommittee meeting | Wolfson Lecture Theatre, Level 12**  
*Open to SSC members only*

12:00 – 13:00 **Lunch | The Axis, Level 13; The Atrium, Level 12**  
**Trade exhibition | The Atrium, Level 12**  
**Poster viewing | Spaces 7, 8 & 9, Level 12**

13:00 – 13:20 **Congress opening | Space 1 & 2, Level 13**  
*Including presentation of the President's Award to David Mason (Unilever)*

Phil Botham (Syngenta)

13:20 – 14:00 **Plenary lecture | Space 1 & 2, Level 13**

Safety considerations of gene editing therapies – Roberto Nitsch (AstraZeneca)

Chair: Phil Botham (Syngenta)

14:00 – 14:30 **Frank Sullivan Award lecture | Space 1 & 2, Level 13**

*This award recognises an outstanding contribution to toxicology by an early-career member of the Society*

A silent threat? Unveiling a class of 'forever chemicals' and their potential link to autoimmune liver disorders – Tarek Abdelghany (University of Aberdeen)

Chair: Ian Copple (University of Liverpool)

14:30 – 15:00 **Refreshments | The Axis, Level 13; The Atrium, Level 12**  
**Trade exhibition | The Atrium, Level 12**  
**Poster viewing | Spaces 7, 8 & 9, Level 12**

**15:00 – 17:00 Symposium 1 – Progress in regulatory protection of the marine/aquatic environment | Space 1 & 2, Level 13**

*Co-hosted by Regulatory Toxicology & Ecotoxicology speciality sections*

Chairs: Natalie Burden (NC3Rs), Miriam Jacobs (UK Health Security Agency)

15:00 – 15:30 Understanding longer term degradation potential of chemicals: The regulatory need for the Marine Biodegradation Screening Test for Chemical Persistence Assessment - Russell Davenport (Newcastle University)

15:30 – 16:00 Supporting vitellogenin measurement and assessment in OECD Test Guideline Studies - Natalie Burden (NC3Rs)

16:00 – 16:30 Immune dysfunction in the coastal environment: Scoping hazard assessment needs - Emmanuel Awulu (UKHSA)

16:30 – 16:45 Symposium reflection and discussion

16:45 – 17:00 Flash poster presentations:

P2: Novel Approach Methodologies as promising molecular tools for pharmaceutical pollution – Anne Leung (Dublin City University, Ireland)

P6: Identifying epigenetic features that influence Cas9-mediated translocations – Eve Stalker (MRC Toxicology Unit)

P8: Integration of bioactivity new approach methods (NAMs) in read across. A case study with fatty acids, C12-18 and C18-unsaturated, 2-sulfoethyl esters, sodium salts (DEFI) for sub-acute toxicity – Meshia Williams (Unilever)

**Symposium 2 – Knowledge gaps in e-cigarette toxicology | Space 4 & 5, Level 12**

*Hosted by Clinical & Human Toxicology speciality section in collaboration with Royal Society of Chemistry Toxicology Group*

Chairs: Mathew Van de Pette (UKHSA), Shirley Price (University of Surrey/RSC Toxicology Group)

Epi/genomics of e-cigarette use – Rebecca Richmond (University of Bristol)

Direct and indirect risks from vaping - Alan Boobis (Imperial College London)

Detection of synthetic cannabinoids and other drugs in seized e-cigarettes from English schools - Christopher Pudney (University of Bath)

Symposium reflection and discussion

Flash poster presentations:

P3: Drug use and abuse trends in older adults since 2010: A review – Amelia Vasconcelos (Nottingham Trent University)

P11: Investigations into the impact of e-cigarette exposure on respiratory infections highlights issues with e-cigarette heterogeneity – Rachel Bowsher (UKHSA)

P21: Enhancing toxicology education: Implementing a research-based wet lab practical in epithelial physiology undergraduate course – Tarek Abdelghany (University of Aberdeen)

P23: The development of a delta-9-THC colorimetric breathalyzer using 3D printing manufacture – Emanuele Alves (University of South Wales)

17:00 – 18:00 **Poster viewing and judging | Spaces 7, 8 & 9, Level 12**  
*Judges will visit posters to talk to presenters eligible for the pre- and post-doctoral prizes about their work*

18:00 – 21:00 **Drinks reception | The Atrium, Level 12**  
*Chat with old friends and make new ones. BTS Executive Committee members will be identified by their congress badges and approachable by all members to ask questions and make suggestions – it's your Society!*

19:00 – 21:00 **Networking session – Toxicology escape room challenge! | Space 1 & 2, Level 13**  
*Hosted by the BTS Network for Early Stage Toxicologists (NEST). Open to all delegates. Food and drinks will be provided. Solve a series of toxicology themed puzzles – the quickest team to crack the code wins! This is a great opportunity to connect, collaborate, and showcase your toxicology skills in a unique and engaging way.*

## Day 2 - Thursday 8th May

08:00 – **Registration open for Congress delegates | Level 13**

09:00 – 11:00

### **Symposium 3 – Large language models in risk assessment | Space 1 & 2, Level 13**

*Co-hosted by Computational Toxicology & Risk Assessment speciality sections*

Chairs: Susy Brescia (Health & Safety Executive), Ciarán Fisher (GSK)

09:00 – 09:30

Artificial intelligence, machine learning and large language models (LLMs): What's what? – Thierry Hanser (Lhasa Ltd)

09:30 – 10:00

Trustworthy AI: Constraining and validating LLMs in preclinical safety – Sebastian Lobentanzer (Helmholtz Munich/German Centre for Diabetes Research)

10:00 – 10:30

The future of artificial intelligence in human safety assessment – Darren Green (DesignPlus Cheminformatics Consultants)

10:30 – 10:45

Symposium reflection and discussion

10:45 – 11:00

Flash poster presentations:

P7: A future for pharma: Modern management from studies to submissions – Frances Hall (Instem)

P9: Evaluation of Secondary Intelligence™ as a tool for interpreting the human relevance of in vitro pharmacological profiling data in next generation risk assessment – Kathryn Wolton (Unilever)

P15: Protective potential of beta-hydroxybutyrate on Cyclophosphamide-induced reproductive toxicity: An in-silico study – Jeremiah Gbemisolaoluwa (Mountain Top University, Nigeria)

### **Symposium 4 – Toxic effects of environmental chemicals on the immune system | Space 4 & 5, Level 12**

*Hosted by Mechanistic & Discovery Toxicology speciality section*

Chairs: Francisco de Asis Iñesta Vaquera (Universidad de Extremadura, Spain), Nic Coltman (Apconix)

Human exposure to PFAS mixtures influences antiviral immune defenses – B. Paige Lawrence (University of Rochester, USA)

Plastic-associated chemicals disrupt metabolic endocrine function in obesity and inflammation – Kristin Schubert (Helmholtz Centre for Environmental Research, Germany)

From pollution to protection: immunotoxicology and respiratory human health in a changing environment – Marjut Roponen (University of Eastern Finland)

Symposium reflection and discussion

Flash poster presentations:

P17: Modulating the safety of antisense oligonucleotides through interrogating secondary structure formation – Alex Fulton (MRC Toxicology Unit)

P34: TREX1 and TREX2 are novel DNA damage sensing proteins in response to genotoxic stress – Hashim Ahmed Nur (MRC Toxicology Unit)

P45: New approach methodologies for safe-by-design of multicomponent nanomaterials – Elisa Moschini (Heriot-Watt University)

11:00 – 11:30

**Refreshments | The Axis, Level 13; The Atrium, Level 12**  
**Trade exhibition | The Atrium, Level 12**  
**Poster viewing | Spaces 7, 8 & 9, Level 12**

11:30 – 12:15

### **Barnes Prize lecture | Space 1 & 2, Level 13**

*This award celebrates a distinguished leader in toxicology*

Mechanistic toxicology to improve human health – Anne Willis (MRC Toxicology Unit)

Chair: Tim Gant (UKHSA/Imperial College London)

12:15 – 13:00

### **Poster viewing and judging | Spaces 7, 8 & 9, Level 12**

*Judges will visit posters to talk to presenters eligible for the pre- and post-doctoral prizes about their work*

13:00 – 14:00 **Lunch | The Axis, Level 13; The Atrium, Level 12**  
**Trade exhibition | The Atrium, Level 12**  
**Poster viewing | Spaces 7, 8 & 9, Level 12**

13:15 – 13:45

**BTS Ambassadors meeting | Space 4 & 5, Level 12**  
*Open to current Ambassadors, those interested in becoming an Ambassador, and those curious about the Ambassadors scheme and its goals. Please collect your lunch from The Axis or The Atrium and bring it with you to the meeting.*

**14:00 – 15:30 Oral communications**

*Hosted by the BTS Network for Early Stage Toxicologists (NEST) and early career members. These sessions showcase the top ranked abstracts covering a variety of research topics. All welcome!*

**Oral communications 1 | Space 1 & 2, Level 13**

Chairs: Emma Quartermain (UKHSA), Jake Williams (Syngenta)

14:00 – 14:15 Using a machine learning framework to improve the efficiency of mitochondrial toxicity screening by guiding compound selection - Tiago Marques Pedro (MRC Toxicology Unit)

14:15 – 14:30 TOXBOX: Feeding assays unravel the impact of pollutants on daphnids - Flavia Melati (Dublin City University, Ireland)

14:30 – 14:45 Unravelling genetic contributions to mitochondrial toxicity in idiosyncratic drug-induced liver injury: Insights from patient-derived cell models – Gruffydd Behnan (MRC Toxicology Unit)

14:45 – 15:00 A quantitative systems toxicology approach to enhance in vitro to in vivo translation of the role of NRF2 in drug safety – Olivia Harris (University of Liverpool)

15:00 – 15:15 Targeting CCL2 to improve efficacy and reduce toxicity of CAR T-cell therapy – Wiktoria Parol (MRC Toxicology Unit)

15:15 – 15:30 A complex problem: Investigating the off-target inhibition of mitochondrial complex I in drug-induced liver injury – Jessica Bosak (University of Cambridge)

**Oral communications 2 | Space 4 & 5, Level 12**

Chairs: Rachel Bowsher (UKHSA), Victoria Pack (Defence Science & Technology Laboratory)

A non-animal toolbox for a next-generation risk assessment approach for inhalation safety: applicability of new approach methodologies informed by adverse outcome pathways associated with pulmonary toxicity – Renato Ivan de Ávila (Unilever)

Utilising advanced in vitro lung models to determine the potential toxicological impacts of realistic indoor pollutant exposure scenarios – Kirsty Meldrum (Swansea University)

CDK9 inhibition impairs ribosome biogenesis and induces nucleolar stress in primary human hepatocytes – Niall Buckley (AstraZeneca, MRC Toxicology Unit)

Precision environmental health: A data-driven approach that identifies hazards of complex chemical mixtures in the environment – Xiaojing Li (University of Birmingham)

SARA-ICE: A self-contained model for predicting a human relevant point-of-departure for skin sensitization – Georgia Reynolds (Unilever)

Enhancing QSAR predictions for acute oral toxicity: A QAF-compliant approach using CaTMOS and the OECD QSAR ToolBox – Elena Fioravanzo (ToxNavigation)

15:30 – 16:00 **Refreshments | The Axis, Level 13; The Atrium, Level 12**  
**Trade exhibition | The Atrium, Level 12**  
**Poster viewing | Spaces 7, 8 & 9, Level 12**

**16:00 – 16:30 Malcolm Blackwell award lecture | Space 1 & 2, Level 13**

*This award recognises a member deemed inspirational, impactful and a role model to early career toxicologists*

Advancing skin protection: Comparative insights on new decontamination solutions and application methods for chemical warfare agents – Nevine Amer (University of Hertfordshire)

Chair: Barbara Kubickova (Syngenta)

16:30 – 17:30 **BTS Annual General Meeting | Space 4 & 5, Level 12**  
*Open to all BTS members, the AGM is your opportunity to learn about the Society's activities and strategy, ask questions of the Society's leadership and help shape the future of the Society.*

19:00 – 00:00 **Pre-dinner drinks reception | The Atrium, Level 12; The Axis, Level 13**  
**Followed by Congress dinner, prize giving & entertainment | Space 1 & 2, Level 13**

### Day 3 - Friday 9 May

08:30 – **Registration open for Congress delegates | Level 13**

09:30 – 11:15 **Symposium 5 – Safety considerations for T-cell therapeutics | Space 1 & 2, Level 13**

*Hosted by Translational Toxicology speciality section*

Chairs: Giulia Morlino and Mark Singh (Cell and Gene Therapy Catapult)

09:30 – 10:00 Novel anti-LRG5 CAR T-cells for the treatment of liver and colorectal cancer – Marc De La Roche (University of Cambridge)

10:00 – 10:30 HypoxiCAR: Harnessing hypoxia to reduce CAR-T cell toxicity in the treatment of solid cancers – James Arnold (Korecyte Bio)

10:30 – 11:00 Developing Tecelra: The first approved cancer TCR cellular therapy – Joseph Sanderson (Adaptimmune)

11:00 – 11:15 Symposium reflection and discussion

**Study Director Workshop | Space 4 & 5, Level 12**

*Focusing on practical approaches to real-life challenges faced by Study Directors and Study Monitors during nonclinical study conduct.*

Chairs: Warren Harvey (ICON), Sean O'Halloran (Labcorp)

An in vitro microfluidic model of the human cardiovascular system for use in pharmaceutical screening applications – Daniel Bramham (Labcorp)

Formulation and test item challenges in nonclinical studies: Practical problems, effective solutions - Charlotte Mann (Sequani)

Everything you need to know about the Standard for Exchange of Nonclinical Data (SEND) in under 30 minutes – Marc Ellison (INSTEM)

Workshop reflection and discussion

11:15 – 11:45 **Refreshments | The Axis, Level 13; The Atrium, Level 12**  
**Trade exhibition | The Atrium, Level 12**  
**Poster viewing | Spaces 7, 8 & 9, Level 12**  
*Please remove posters by the end of this break. All posters remaining at the end of the meeting will be discarded.*

11:45 – 12:45 **BTS Speciality Section discussions**  
*Open to all delegates – discussion of future activities and meeting topics, led by speciality section coordinators. Join one of the discussions if you are affiliated with a speciality section, interested in affiliation, or just curious!*

Clinical and Human Toxicology section | Space 6, Level 12  
Computational and In Silico Toxicology section | Space 4, Level 12  
Mechanistic and Discovery Toxicology section | Space 5, Level 12  
Regulatory Toxicology section | Wolfson Lecture Theatre, Level 12  
Risk Assessment section | Space 1, Level 13  
Translational Toxicology section | Space 2, Level 13

*Ecotoxicology section – no discussion at the Congress, separate meetings to be arranged in 2025*

12:45 – 13:15 **ASPET invitation lecture | Space 1 & 2, Level 13**

*This lecture is given by a member of the American Society for Pharmacology & Experimental Therapeutics, selected by their Toxicology Division to network in the UK as part of the BTS-ASPET exchange scheme*

Similarities and differences in microcystin hepatotoxicity between healthy and metabolic dysfunction-associated steatotic liver disease in preclinical models - John Clarke (Washington State University, USA)

Chair: Neill Liptrott (University of Liverpool)

13:15 – 13:30 **Congress closing | Space 1 & 2, Level 13**

Phil Botham (Syngenta)

13:30 – **Lunch (to eat in or take away) | The Axis, Level 13; The Atrium, Level 12**