Monday 20 April 2015
08:30 - 09:00 Registration

Chair: Professor Tim Gant (Public Health England, UK)
09:00 - 10:00

Plenary Lecture
Epidemiology; its contribution to the assessment and management of risks to health from chemicals
Professor David Coggon (University of Southampton, United Kingdom)

Symposium 1: MRC Integrative Toxicology Training Partnership
Fetal Programming and Assessing Toxicity in an Ageing Population

Chairs:
Professor Andy Smith (MRC Toxicology Unit, UK)
Professor Marion MacFarlane (MRC Toxicology Unit, UK)
10:00 - 10:30

Epidemiological evidence of early effects of fetal exposure on later outcomes, including into the next generation
Professor Jean Golding OBE (University of Bristol, United Kingdom)
10:30 - 11:00

Immune ageing: Consequences, causes and corrections
Professor Janet Lord (Birmingham University Medical School, United Kingdom)
11:30 - 12:00

Age-related changes in gene expression and neurodegeneration
Professor Ruth Luthi-Carter (University of Leicester, United Kingdom)
12:00 - 12:30

Data integration and analysis of safety data, and analysis of inter and intra-species variability and effects of ageing
Dr John Overington (European Molecular Biology Laboratory – European Bioinformatics Institute, United Kingdom)
12:30 - 14:00 Lunch and Trade Exhibition

13:00 - 13:45 Introduction to Toxicology qualifications at the Royal College of Pathology
Symposium 2: *In Vitro* Toxicology Society
*In Vitro* Models and Tools for Renal Toxicology

**Chairs:**
- **Ray Boughton** (Delphic HSE Solutions Ltd, UK)
- **Penny Jones** (Unilever, UK)

14:00 - 14:30

New approaches to *in vitro* models for nephrotoxicity

**Dr Gavin Welsh** (University of Bristol, United Kingdom)

14:30 - 15:00

Integrated omics for assessing nephrotoxic potential of chemicals in *vitro*

**Dr Paul Jennings** (Medical University of Innsbruck, Austria)

15:30 - 16:00

*In vitro* human renal primary cells as a novel tool for investigating mineral ion homeostasis during drug screening

**Professor Daniela Riccardi** (Cardiff University, United Kingdom)

16:00 - 16:30

Engineered kidney tissue *in vitro*

**Professor Jamie Davies** (University of Edinburgh, United Kingdom)

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Symposium 3: Emergency Toxicology – Acute Toxicity Risk Assessment

**Chairs:**
- **Dr Carol Courage** (Unilever, UK)
- **Dr Paul Rumsby** (WRc plc, UK)

Monday 20 April 2015

14:00 - 14:30

General acute toxicity risk assessment in emergencies

**Dr Paul Rumsby** (WRc plc, United Kingdom)

14:30 - 15:00

Assessment and management of Elk River, West Virginia drinking water contamination incident, 2014

**Dr Michael Dourson** (TERA, U.S.A.)

15:30 - 16:00

Exposure Assessment and Public Health Risk Assessment During and After Large Fires

**Dr Naima Bradley** (Public Health England Centre for Radiation, Chemical and Environmental Hazards, United Kingdom)
16:00 - 16:30
Acute incidents: chronic effects
**Professor Andrew Smith** (MRC Toxicology Unit, UK)

16:30 - 18:00 BTS AGM
For BTS members only

8:45 - 09:30 Rapid Fire Innovation Communications

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**Symposium 4: Mathematical Toxicology**

**Chairs:**
- **Dr Dominic Williams** (AstraZeneca, UK)
- **Dr Steven Webb** (University of Liverpool, UK)

09:30 - 10:00
The role of mathematical modelling in toxicology
**Dr Steven Webb** (University of Liverpool, United Kingdom)

10:00 - 10:30
Modelling the NFkB pathway
**Professor David Rand** (University of Warwick, UK)

11:00 - 11:30
Using Chemical and Biological Data Integration for Toxicity Prediction
**Dr Andreas Bender** (University of Cambridge, United Kingdom)

11:30 - 12:00
Linking Chemical Categories to Adverse Outcome Pathways
**Professor Mark Cronin** (Liverpool John Moores University, United Kingdom)

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**Symposium 5: British Society of Toxicological Pathology**

**Renal Pathology – Integration with Toxicology**

**Chairs:**
- **Dr Catherine Ross** (Covance Laboratories, UK)
- **Dr Ernie Harpur** (Newcastle University, UK)

09:30 - 10:00
Novel biomarkers of renal toxicity and their interpretation
**Dr Ernie Harpur** (Newcastle University, United Kingdom)

10:00 - 10:30
Immunohistochemistry as an investigative tool in discovery toxicology of the kidney
**Dr Franck Chanut** (GlaxoSmithKline, United Kingdom)
11:00 - 11:30
Models of renal disease: choice and implications for toxicity testing
**Dr Martin Leonard** (Public Health England, United Kingdom)
11:30 - 12:00
Renal pathology of antisense oligonucleotides
**Dr Cecile Sobry** (CiToxLAB, France)
12:00 - 13:30 Lunch and Trade Exhibition

13:30 - 14:30
**Barnes Prize Lecture**
Immunotoxicology and beyond
**Professor Ian Kimber OBE** (University of Manchester, United Kingdom)

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**Study Director/Study Monitor workshop**

**Chairs:**
**Ian Slater** (AstraZeneca, UK)
**Karen Laidlaw** (Charles River Laboratories, UK)
15:00 - 15:40
Optimising the *In Vivo* Assessment of Compounds for Potential Mitochondrial Toxicity
**Angie Burns** (GlaxoSmithKline, United Kingdom)
15:40 - 16:20
Application of the 3Rs in Reproductive Toxicology Studies
**Kevin McConnachie** (Charles River Laboratories, UK)
16:20 - 17:00
Group housing of dogs during JET capture
**Diane Rorison and Helen Prior** (Charles River Laboratories and AstraZeneca, UK)

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**Oral Communications**

**Chairs:**
**Dr Daniel Antoine** (University of Liverpool, UK)
**Dr Amy Chadwick** (University of Liverpool, UK)
**Tuesday 21 April 2015**
15:00 - 17:00 Oral Communications session

15:00 - 15:15
The concept of human exposure-based toxicity testing for agrochemicals
**Claire Terry** (Dow AgroSciences, United Kingdom)
15:15 - 15:30
Valproic acid: adherence to treatment and new frontiers in treatment of overdose. Clinical records in the last 5
years in A&E (Galliera Hospital - Genoa)

Silvia Leone (University of Genoa, Italy)
15:30 - 15:45
Towards and MIE Atlas - Tools for Toxicity Prediction

Timothy Allen (University of Cambridge, United Kingdom)
15:45 - 16:00
Developing novel in vitro models to investigate the mechanistic basis of mitochondrial dysfunction in tenofovir-induced renal injury

Agnès Tort (University of Liverpool, United Kingdom)
16:00 - 16:15
Utility of B-13 progenitor-derived hepatocyte-like cells for screening of phase II activated genotoxins

Philip Probert (Newcastle University, United Kingdom)
16:15 - 16:30
Bacterial azoreductases in metabolism of xenobiotics

Sinaed Holland (Kingston University, United Kingdom)
16:30 - 16:45
Anti-vascular Efficacy and Toxicity: Measuring Changes in Tumors Versus the Host

Adam Hargreaves (PathCelerate Ltd, United Kingdom)
16:45 - 17:00
Fatal toxicity indices of tramadol and two other opioid analgesics in England and Wales between 2004 and 2013

James Coulson (All Wales Therapeutics & Toxicology Centre, United Kingdom)
17:00 - 18:30 Poster session and drinks reception

Wednesday 22 April 2015

Symposium 6: Pharmaceuticals in the Environment

BTS regulatory speciality section and RSC

Chairs:
Dr Henry Stemplewski (MHRA, UK)
Professor Andy Smith (MRC Toxicology Unit, UK)
09:15 - 09:45
Pharmaceuticals in the environment: setting the scene

Professor John Sumpter (Brunel University London, United Kingdom)
09:45 - 10:15
Targeted design of pharmaceuticals for biodegradability in the environment

Professor Klaus Kuemmerer (Leuphana University, Germany)
11:00 - 11:30
Drug development: the impact of pharmaceuticals in the environment and EcoPharmacoStewardship

**Dr Bengt Mattson (EFPIA)**
11:30 - 12:00

Green pharmacy: Where are we now?

**Professor James Clark** (University of York, United Kingdom)

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**Symposium 7: Oligonucleotides – Application in Health and the Environment**

**Chairs:**
**Dr Richard Knight** (AstraZeneca, UK)
**Dr Richard Currie** (Syngenta, UK)
09:15 - 09:45

Nucleotide therapeutics intro & anti-sense toxicology

**Dr Richard Knight** (AstraZeneca, United Kingdom)
09:45 - 10:15

Toxicological assessment of siRNA therapeutics

**Dr Joel Parry** (GlaxoSmithKline, United Kingdom)

10:15 - 11:00 Refreshments

11:00 - 11:30
Predicting hepatotoxic potential of therapeutic oligonucleotides

**Dr Peter Hagedorn** (Roche Innovation Centre, Denmark)
11:30 - 12:00
Risk assessment of RNAi technology for crop protection

**Dr Alan Raybould** (Syngenta, Switzerland)

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**Closing session**

**Chair:**
**Dr Lance Sandle** (Vice President, Royal College of Pathology, UK)
12:00 - 13:00

**RCPath Cameron Lecture**

Advances in Scientific Understanding of Toxicological Potential - towards improved predictive capability

**Dr Jayne Wright** (Jayne Wright Ltd, United Kingdom)