

Joint 3R Symposium 2023

TUE 19.09 • TWINALT

CLOSED SESSION

Moderation Prof. E. Reszka (NIOM, PL)

- 09.30–10.00 **Morning coffee**
- 10.00–10.05 **Welcome** Prof. Tamara Vanhaecke (VUB, BE) & Prof. Edyta Reszka (NIOM, PL)
- 10.05–10.20 **TWINALT pillars/objectives** 1) scientific development; 2) dialogue with industry; 3) raising awareness; 4) approachable knowledge
Prof. Edyta Reszka (NIOM, PL)
- 10.25–10.40 **WP 1: Elaboration of a common RTD and innovation strategy on alternative methods for toxicity assessment** Dr. Elise Rundén-Pran (NILU, NO)
- 10.45–11.00 **WP 2: Exchange of know-how with partners through training mobility**
Dr. Joanna Roszak (NIOM, PL)
- 11.05–11.20 **WP 3: Communication, exploitation and dissemination**
Prof. Tamara Vanhaecke (VUB, BE)
- 11.25–12.00 **Return mechanism workshop** Dr. Joanna Roszak (NIOM, PL)
- S&T 7b - Course on GLP for *in vitro* nano and genotoxicology, best practices with nanomaterial handling and preparation for testing**
Dr. Gloria Melzi (UMIL, IT)
- S&T 8 - New tools in the assessment of neurotoxicity and developmental neurotoxicity** Dr. Tanima Sengupta (NILU, NO) & Dr. Anna Wolniakowska (NIOM, PL)
- S&T 9 - Imaging Course @ NILU**
Marta Biesiekierska (NIOM, PL) & Marth Stinckens (VUB, BE)
- S&T 10 - Course on *in silico* methods in safety assessment of chemicals**
Kateryna Tarhonska (NIOM, PL)
- 12.00–12.15 **Results obtained NIOM for each of the 4 pillars, lessons learned and next steps to be taken** Prof. Edyta Reszka (NIOM, PL)
- 12.15–12.30 **General Discussion**

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OPEN SESSION

Welcome & moderation Prof. T. Vanhaecke (VUB, BE)

- 12.30–14.00 **Lunch & Poster sessions**
- 14.00–14.30 **Use of Adverse Outcome Pathways (AOPs) for hazard identification**
Prof. Barbara Viviani (UMIL, IT)
- 14.40–15.10 **An AOP-based IATA to pave the way towards animal-free genotoxicity testing**
Dr. Birgit Mertens (Sciensano, BE)
- 15.20–15.40 **Influence of the experimental approach in the assessment of nanomaterial hazard *in vitro* - engineered and incidental nanoparticles relevant to the ceramic industry as case study**
Prof. Sónia Fraga (INSA, PT)
- 15.50–16.10 **Metabolic disruption in the liver: assays to detect hepatic triglyceride accumulation in human liver cells *in vitro***
Prof. Albert Braeuning (BfR, DE)
- 16.10–17.30 **Networking reception**

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WED 20.09 • RE-PLACE & YSC

Knowledge Sharing on NAMs

Moderation Dr. B. Mertens (Sciensano, BE)

09.00-09.30 **Morning coffee**

09.30-09.40 **Welcome** Dr. Birgit Mertens (Sciensano, BE)

European Databases on NAMs and education of the next generation scientists

09.40- 10.10 **Fostering critical thinking about science, its methods and the 3Rs: resources from EURL-ECVAM for established researchers and the scientists of tomorrow**
Dr. Annalisa Gastaldello (Project officer at the European Commission, EU)

Belgian Database on NAMs and initiatives to promote its use

10.10 - 10.35 **RE-Place: a bottom-up approach to collect the existing expertise on NAMs in Belgium**
Mieke Van Mulders & Maude Everaert (VUB/Sciensano, BE)

Expertise from the RE-Place database: Modelling tools in practice

10.35 - 10.55 **Mathematics as an alternative for animal experiments in burn injuries**
Prof. Fred Vermolen (UHasselt, BE)

10.55 - 11.15 **Towards a Hippocampal Formation Model of Temporal Lobe Epilepsy**
Prof. Emmeric Tanghe (UGent, BE)

11.15 - 11.35 **Coffee break & Poster sessions**

Expertise from the RE-Place database: Progress in 3D tissue models

11.35 - 12.00 **Using lung organoids to study the role of the chitinase-like protein Ym2 in allergic asthma**
Dr. Ursula Smole (UGent, BE)

12.00 - 12.20 **Optimized High-Throughput Screening of 3D Precision-Cut Tissue Slices**
Dr. Bella B. Manshian (KU Leuven, BE)

12.20 - 12.40 **MISpherID: A knowledgebase and transparency tool for Minimum Information in Spheroid IDentity** Eva Blondeel (UGent, BE)



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Young Scientists Competition

Moderation Prof. J. De Kock (VUB, BE)

12.40 - 14.00 **Lunch & Poster sessions**

14.00 - 14.15 **The GENOMARK transcriptomic biomarker: a new approach methodology for qualitative and quantitative genotoxicity assessment of chemicals**
Anouck Thienpont (VUB, BE)

14.15 - 14.30 **A human bronchial epithelial spheroid model to study respiratory toxicity *in vitro*** Thomas Celis (KU Leuven, BE)

14.30 - 14.45 **Receptor ontology and the importance of glutamatergic subunit composition in the assessment of developmental neurotoxicity: focus on the GluN2B/GluN2A switch in primary versus hPSCs-derived neurons**
Melania Serafini (Università di Milano, IT)

14.45 - 15.00 **Perioperative care for complex abdominal surgery in a novel mouse model**
Louis Onghena (Ugent, BE)

15.00 - 15.30 **Coffee break & Poster sessions**

15.30 - 15.45 **Production of a reusable micromolded microcavity insert to standardize spheroid generation for drug screening**
Helia Fernandes (Politecnico di Milano, IT)

15.45 - 16.00 **Comparison of advanced and traditional cell culture models for lung and liver - cyto- and genotoxicity of NM-300K silver nanoparticles**
Elisabeth Elje (NILU, NO)

16.00 - 16.15 **Assessment of cytotoxic effect mechanisms of circadian REV-ERB agonist in urothelial cells** Marta Biesiekierska (NIOM, PL)

16.15 - 16.30 **Planarians as an *in vivo* model for a high-throughput assessment of developmental, neuro- and genotoxicity**
Karolien Bijmens (UHasselt, BE)

16.30 **End of the day**



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THU 21.09 · IC-3Rs

The lifecycle in neurotoxicity

Moderation Dr. B. Garthoff (BIO.NRW, DE)

- 08.30 – 09.00 **Morning coffee**
- 09.00 – 09.15 **Welcome** Prof. Vera Rogiers (IC-3Rs, BE)
- 09.15 – 09.30 **Some Words** from Bernard Clerfayt (Min. Brussels Region, Animal Welfare, BE)
- 09.30 – 09.55 **Introduction to life stage-dependent neurotoxicity, including current status of AOPs**
Dr. Oddvar Myhre (Norwegian Institute of Public Health, NO)
- 10.05 – 10.30 **The *in vitro* test battery for developmental neurotoxicity assessment towards regulatory acceptance (DNT IVB)**
Prof. Ellen Fritsche (University of Düsseldorf, DE)
- 10.40 – 11.20 **Coffee break & Poster sessions**
- 11.20 – 11.45 **Neurodevelopmental toxicity in the European H2020 ONTOX project**
Dr. Eliška Kuchovska (University of Düsseldorf, DE)
- 11.55 – 12.20 **Brain organoids for personal medicine modelling in neurodegenerative disease**
Prof. Ira Espuny Camacho (ULiège/GIGA, BE)

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Reproductive health: *in vitro* modelling

Moderation Prof. J. Castell (Uni Valencia, ES)

- 12.30 – 14.00 **Lunch & Poster sessions**
- 14.00 – 14.30 **Endocrine disruptive effects on the male reproductive system: animal versus non-animal data?**
Prof. Terje Svingen (Technical University Denmark, DK)
- 14.40 – 15.10 **Development of a representative, reliable and reproducible model for (human) testis**
Prof. Yoni Baert (Vrije Universiteit Brussel, BE)
- 15.20 – 15.35 **Coffee break**
- 15.40 – 16.10 **Implantation (female) models including endometrial organoids and assembloids**
Dr. Thomas Rawlings (University of Warwick, UK)
- 16.20 – 16.50 **Stem cells and embryo development**
Prof. Karen Sermon (Vrije Universiteit Brussel, BE)
- 17.00 – 17.15 **Award ceremony**
- 17.15 **Networking reception**