



NanoTox 2021 - a virtual success showcasing the latest research and development in nanosafety research

Press Release

Virtual, 20 - 22 April 2021

The nanosafety community met virtually for their 10th International Conference on Nanotoxicology - Nanotox between 20th to 22nd April 2021. This year's conference has been jointly organised by three leading EU Horizon 2020 Projects, BIORIMA, GRACIOUS, and PATROLS - focusing on the development of novel tools for evaluating human and environmental hazard, and strategies for nanomaterial characterization, grouping, and read-across for risk analysis.

The conference not only showed the outputs and results from three years of research from those three projects, but also showcased the latest trends and developments in the field of nanosafety. Topics included hazard characterisation and assessment, risk assessment and governance, release and exposure, alternative hazard testing methods as well as Safe(r) by design (SbD) of nanomaterials and advanced materials.

"NanoTox2021 has been an opportunity to showcase three key interacting projects to the nanosafety community. Right from the start of these three projects we planned to facilitate this meeting and we are so pleased that it has been a huge success," remarks Vicki Stone, Project Coordinator of the GRACIOUS Project, Harriot-Watt University.

Overall, the conference welcomed 361 participants from 33 countries which attended 82 oral presentations, 117 poster presentations and 7 keynote presentations. Participants included members of academia, research institutions, industry, governmental institutions and NGOs.

Shareen Doak, PATROLS Project Coordinator, Swansea University, adds: *"It has been fantastic to see so many participants, including early career researchers actively engaged during the conference. We are very pleased as organisers that we could provide a virtual platform that still enabled scientific exchange not only within academia, but also with industry and governmental institutions."*

One of the many highlights was the award ceremony where prizes in 6 categories were presented:

Best Oral: Prof Em. Dr Harold Krug (Nanocase GmbH, Switzerland) - Hazard assessment in nanotoxicology - the CoCoN database science approach

Best Student Oral: Battuja Batbajar Dugershaw (St Gallen Empa, Switzerland) - Indirect embryo-fetal risk of nanoparticles: Impact on human placental function, the release of placental signaling factors and subsequent alterations on angiogenic and neurodevelopment processes.



Best Poster: Dr Tobias Lammel (University of Gothenburg, Sweden) - Toxicity assessment of nanoparticulate TiO₂ UV filter alone and in binary mixtures with organic UV filters using fish gill cells (RTgill-W1)

Best Student Poster: Gerrit Bredeck (Leibniz Research Institute for Environmental Medicine, Germany) - Possible impact of foodborne engineered nanoparticles on the murine gut microbiome

In the closing remarks, Lang Tran, Project Coordinator BIORIMA, IOM states: *“Our three projects are coming to an end but we are looking forward to showcase final results at the next conference”*

The next conference NanoTox 2024 will take place in Singapore. More details will follow soon.

Project Facts:

GRACIOUS H2020 project has developed a highly innovative science-based framework to enable practical application of Grouping, leading to Read Across and classification of nanomaterials and nanoforms.

Project Duration: 45 months, starting January 2018

Consortium: The GRACIOUS consortium consists of 23 partners spanning Europe and the USA, including representatives from academia, industry, policy makers and regulators.

Total Budget: 7.1 Million EUR

BIORIMA H2020 project has developed an Integrated Risk Management (IRM) framework for nano-(bio)materials applicable to advanced therapy medicinal products and medical devices.

Project Duration: 48 months, starting in November 2017

Consortium: BIORIMA brings together Europe's foremost experts in the fields of human and environmental safety assessment, nano-(bio)material analytical analysis and physico-chemical characterisation, in-silico modelling, exposure, and risk assessment. The BIORIMA consortium consists of 41 partners, spanning 14 countries across the EU, Hong Kong, China and Japan.

Total Budget: 8.7 Million EUR



PATROLS has developed an enhanced suite of robust, reproducible and transferable *in vitro* tests, ecotoxicity testing methods and *in silico* models, which will offer improved prediction of the long-term nanomaterial hazard effects in humans and the environment.

Project duration: 45 months, starting January 2018

Consortium: PATROLS is an international project combining a team of academics, industrial scientists, government officials and risk assessors to deliver advanced and realistic tools and methods for nanomaterial safety assessment. It includes 25 partners from 13 countries across Europe, the USA, Canada and Korea.

Total Budget: 13.1 Million EUR

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