NanoWeek & NanoCommons Final Conference 2022

"Evolution of Nanosafety and materials sustainability as we transition into Horizon Europe".

Cyprus, 20 – 24 June 2022, Conference venue: Crown Plaza Limassol, Promachon Eleftherias 2, Agios Athanasios, Limassol

Note that the programme is subject to minor changes.

Monday 20th June		
08.00	Welcome and registration	
	Young NanoScientists session (Chairs: Stefania Melandri and Ilaria Zanoni (CNR / ASINA))	
09.00 – 09.45	**Presentation of YNS ECRs** (Presentation of the group, its activities, and the Coordination Board)	
09.45 – 10.30	**Introduction of the participants** (who are you? What is your field of interest?)	
10.30 – 11.00	Coffee break	
11.00 – 12.30	**Science speed dating**	
12.30 – 14.00	Lunch	
	Chairs: Iseult Lynch & Antreas Afantitis	
14.00 – 14.30	**Keynote 1 - Fred Klaessig,** Pennsylvania Bio Nano Systems; https://www.linkedin.com/in/fred-klaessig-b5800aa/ "Some open questions in understanding and predicting nanomaterials dissolution"	
14.30 – 15.30	**TA Showcase** Short presentations from NanoCommons Transnational Access (TA) Users	
15.30 – 16.00	Coffee Break	
	Chairs: Martin Himly & Soco Vázquez-Campos	**Chairs: Thomas Exner & Damjana Drobne**
16.00 – 16.15	Interaction of different types of carbon nanomaterials of industrial interest with human primary macrophages from blood donors: nanotoxicology and immune activation – A. **Artiga** (CNRS)	Community infrastructure for nanosafety: the future of NanoCommons I. **Lynch** (University of Birmingham)
16.15 – 16.30	Accounting for nanomaterials-related toxicity issues in the environmental Life Cycle Assessment (LCA) studies – A R&D case study - B. **Belloncle** (Materia Nova)	A "traffic light" methodology enabling the automatic assessment of Data Quality and Completeness of nanosafety physicochemical and hazard information for Risk Assessment purposes – G. **Basei** (GreenDecision Srl)

16.30 – 16.45	Label-free Impedance-based Methods for Nanotoxicity Assessment – M. **Cimpan** (University of Bergen)	Improving data findability and accessibility – M. **Bakker/Cowie** (Institute of Occupational Medicine)
16.45 – 17.00	Much ado about silica: surface modification mitigates silica nanoparticle-triggered cytotoxicity and pro-inflammatory cytokine release in human monocytes – B. **Fadeel** (Karolinska Institutet)	Data shepherding in nanotechnology. The ASINA case – I. **Furxhi** (Transgero Limited)
17.00 – 17.15	Biotransformation Modulates the Penetration of Metallic Nanomaterials across the Blood Brain Barrier – Z. **Guo** (University of Birmingham)	Which FAIR assessment tools to use? – M.I. **Bakker/Quik** (RIVM)
17.15 – 17.30	Use of single particle ICP-MS to estimate silver nanoparticle penetration through baby porcine mucosa – I. **Zanoni** (CNR-ISTEC)	Reducing the obstacles for the use of in vitro toxicity data of nanomaterials in life cycle assessment and human risk assessment – P. **Wick** (Empa)
17.30 – 18.00	**Keynote 2 - Phil Demokratou,** Rutgers University, https://mae.rutgers.edu/philip-demokritou "The particle exposure-disease continuum: tools, approaches and frameworks for personal monitoring (PM) systems for use in exposure assessment and epidemiological studies"	
18.00 – 18.30	**Open Round Table: Sustaining a community infrastructure**	
18.30 – 22.30	Dinner in Limassol	

Tuesday 21st June		
08.00	Registration	
08.30 – 09.00	**Keynote 3 - Cecilia Mattevi,** Imperial College London. https://www.imperial.ac.uk/people/c.mattevi **"**Synthesis of 2D materials and their three-dimensional structuring into miniaturized devices for application as energy storage devices and energy conversion systems"	
	Chairs: Maria Dusinska & Arno Gutleb	**Chairs: Thomas Exner & Iseult Lynch**
09.00 – 09.15	Engineered nanomaterial-relevant AOPs; network creation and identification of key nodes for adverse outcomes – S. **Poulsen** (National Research Centre for the Working Environment)	A Portal and IT infrastructure supporting Risk Governance of nano- and advanced materials and nano-enabled products – E.A. **Bouman** (NILU)
09.15 - 09.30	Assessing the similarity of nanoforms based on the biodegradation of organic surface treatment chemicals – R. **Cross** (UKCEH)	DoE applied to photocatalytic surface for waste water remediation – L. **Faccani** (CNR-ISTEC)
09.30 - 09.45	Validation of an advanced 3D respiratory tri-culture model at the air-liquid interface for hazard assessment of nanomaterials – E. **Elje** (NILU)	The role of digitalization in the safe and sustainable design of manufacturing nanoprocesses. Conceptual framework and first results of the ASINA project - J. M. **Lopez de Ipiña** (TECNALIA Research and Innovation)
09.45 - 10.00	Hazard identification of nanomaterials: in silico unravelling of descriptors for cytotoxicity and genotoxicity – N. El. **Yamani** (NILU)	Developing and documenting PBPK models for nanomaterials: a TiO2 case study – H. **Sarimveis** (NTUA)
10.00 - 10.15	In vitro cytokinesis block micronucleus (CBMN) assay to evaluate the genotoxicity of multicomponent nanomaterials – a comparison with their individual counterparts – A. **Saccardo** (Swansea University)	**NInChI / SciDataCon** session (in conjunction with international data week 2022 – Data to improve our world) **Chairs:** Thomas Exner and Tae-Hyun Yoon Iseult Lynch (UoB): Welcome and introduction John Rumble (RandRdata): Minimal reporting and CODATA Universal Description System Antreas Afantitis (NovaMechanics): NInChI prototype and needs
10.15 - 10.30	Titania-supported metal photocatalytic coating for protection against COVID-19 outbreak – A.M. **Moschovi/Yakoumis** (YS Cypriot Catalysts Ltd)	
10.30 - 11.00	Coffee	Coffee in meeting room
	Chairs: Simon Clavaguera & Ilaria Zanoni	**Chairs: Harry Sarimveis & Tomasz Puzyn**
11.00 - 11.15	Safe and Sustainable by design alternatives applied to antiviral and antimicrobial nano-Ag technology – M. **Blosi** (CNR-ISTEC)	Fred Klaessig (Pennsylvania Biosystems): Collaboration with other CODATA / ISO / IUPAC activities

11.15 - 11.30	Identification of the Safe(r) By Design alternatives of Nanosilver-enabled wound dressings – V. **Cazzagon** (University Ca' Foscari of Venice)	Gerd Blanke (Structure Pendium Technologies): Collaboration with other InChI Trust activities Open joint discussion SciDataCon/Nano-Week
11.30 - 11.45	A Safe by Design approach for the synthesis of TiO2-based nanoparticles for the photocatalytic degradation of pollutants under visible light – **Grigoropoulos** (Creative Nano PC)	Representation requirements and possible extensions to NInChI to facilitate the development of data-driven structure-property models – E. **Marcoulaki** (National Center for Scientific Research "Demokritos")
11.45 - 12.00	Sector specific practices and nanosafety alerts for Safe by Design (SbD) in the 3D printing and paints sectors – J. **Hanlon** (Institute of Occupational Medicine)	Introducing the European Registry of Materials Identifier: a global, unique identifier for (undisclosed) nanomaterials – J. **Van Rijn** (Maastricht University)
12.00 - 12.15	Emissions characterization from 3D printing processes using polymeric and CNTloaded filaments – a SAbyNA case study – A. **Clavaguera/Salmatonidis** (LEITAT)	Instance Maps: A tool for on-the-fly (meta)data collection – T. **Exner** (7P9-DE)
12.15 - 12.30	Towards safety and sustainability in scalable production of semiconducting nanoand non-nanomaterials: Zinc oxide - a case study – P.M.A. **Farias** (Federal University of Pernambuco)	Integrating exposure, hazard and risk modelling across scales to support safe by design of nanomaterials A. **Afantitis** (NovaMechanics Ltd.)
12.30 - 14.00	Lunch	
	Chairs: Matine Bakker & Nathan Bossa	**Chairs: Harry Sarimveis & Tomasz Puzyn**
14.00 - 14.15	Optofluidic Force Induction as Process Analytical Technology – M. **Šimić** (University of Graz)	Meta-analysis of Bioaccumulation Data for Non-Dissolvable Nanomaterials in Freshwater Aquatic Organisms – Y. **Zheng** (EMPA)
14.15 - 14.30	Production of Safe and Functional Nanomaterials introducing the Safety by Process Control Concept – F. **Doganis** (NTUA)	Subspace Clustering as a tool for the similarity assessment and the Read-Across of Nanomaterials – G. **Basei** (GreenDecision Srl)
14.30 - 14.45	Chlorella vulgaris/TiO2 NPs hybrid nanomaterials: new sustainable by design strategy for water treatment applications – A. **Brigliadori** (CNR-ISTEC)	Hydrophobicity and protein-protein interactions in nanoparticle coronas – N.V. **Buchete** (University College Dublin)
14.45 - 15.30	**Poster pitches** (order to be confirmed)	**Poster pitches** (order to be confirmed)
15.30 - 16.00	Coffee Break	
	Chairs: Anna Costa & Tobias Stoeger	**Chairs: Danail Hristozov & Stefania Melandri**
16.00 - 16.15	Wine fining: study on nanostructured mesoporous titania thin layers for adsorption of low molecular weight wine proteins – M. **Serantoni** (CNR-ISTEC)	Computational modeling of intrinsic and extrinsic descriptors of nanomaterials – A. **Colibaba** (University College Dublin)

16.15 - 16.30	Mechanochemistry of PGMs – Z**.** Cherkezova-Zheleva /Yakoumis **(ENEA)**	Advancing our understanding of plastic fragmentation in the environment through a mechanistic model of micro- and nanoplastic fragmentation – S. **Harrison** (UKCEH)
16.30 - 16.45	Antibacterial and Stability Tests of Silver Nanoparticle Spray-Coated Fabrics – A. **Varesano** (CNR-STIIMA)	Cross-selling Nanosafety Modeling Tools: Susceptibility Differences of Respiratory Epithelial Barriers to SARS-CoV-2 Transmission by Virion-laden Aerosol Particles in the Adult and Juvenile Human Lung – S. **Hofer** (PLUS)
16.45 - 17.30	**Poster pitches** (order to be confirmed)	**Poster pitches** (order to be confirmed)
17.30 - 18.15	**Round Table on data management needs & approaches** (Chair: Thomas Exner) Panellists: Anna Costa, Martine Bakker; Danail Hristozov, Damjana Drobne and Socorro Vacquez	
18.15 - 18.30	**Introduction to NanoHarmony interactive session**	
18.30 - 22.30	**Poster session** with cocktails & buffet, plus NanoHarmony interactive session	

Wednesday 22nd June		
8:00	Registration	
08:30 - 09:00	**Keynote 4 - Susana Loureiro,** University of Aveiro; http://www.cesam.ua.pt/index.php?tabela=pessoaldetail&menu=198&user=103 "Increasing the realism and regulatory relevance of nanomaterials safety research – the role of mesocosms"	
	Chairs: Thomas Kuhlbusch & Tomasso Serchi	**Chairs: Yoram Cohen & Miguel Banares**
09.00 - 09.15	Occupational risk assessment and management of nano-enabled magnetite contrast agent using the BIORIMA Decision Support System – V. **Cazzagon** (University Ca' Foscari of Venice)	First principles modelling of nanomaterials properties – K. **Kotsis** (University College Dublin)
09.15 - 09.30	TRAAC framework for regulatory acceptance and wider usability of tools and methods for safe innovation and sustainability of manufactured nanomaterials – W. **Fransman** (TNO)	Multi-scale modelling of aggregation of TiO_2 nanoparticles in water – G. **Mancardi** (Politecnico di Torino)
09.30 - 09.45	An Early Decision Toolbox Facilitating Safe-by-Design Anti-allergy Nanovaccine Development – L. **Johnson** (University of Salzburg)	Multi-scale modelling of the nanoparticle – protein corona – I. **Rouse** (University College Dublin)
09.45 - 10.00	Synergistic strategies for management of nanotechnologies safety – J. **Laranjeira** (ISQ-Instituto de Soldadura e Qualidade)	Synergistic strategies for management of nanotechnologies Molecular Adverse Outcome Pathways: towards the implementation of transcriptomics data in risk assessments – M. **Martens** (Maastricht University)
10.00 - 10.15	Towards risk governance of nanomaterials: adaptation and validation of test methods for characterization and hazard assessment – E. **Longhin** (NILU)	Exploring Adverse Outcome Pathways for nanomaterials with semantic web technologies – J. **Van Rijn** (Maastricht University)
10.15 - 10.30	Updating the OECD 211 Daphnia magna reproduction test for particle-based toxicant exposures – K. **Reilly** (University of Birmingham)	System-dependent QSAR modelling for nanoparticles – T. **Puzyn** (University of Gdansk)
10.30 - 11.00	Coffee Break	
	Chair: Iseult Lynch and Fred Klaessig	**Chair: Antreas Afantitis and Georgia Melagraki**
11.00 - 11.15	A Weight of Evidence approach to classify nanomaterials according to the EU CLP Regulation criteria – G. **Basei** (GreenDecision Srl)	Nanocomposites via Simulations Across Scales – V. **Harmandaris** (The Cyprus Institute)

11.15 - 11.30	ChemPGM- Chemistry of Platinum Group Metals – M.L. **Grilli/YAKOUMIS** (ENEA)	Jaqpot: A computational platform supporting in silico modelling of nanomaterials – H. **Sarimveis** (NTUA)	
11:30 - 12:00	**Keynote 5 - Matt Hull,** Virginia Tech; https://vt.edu/link/license/faculty-inventors/matthew-hull.html "Sustainability, converging technologies, and entrepreneurship"		
12.00 - 12.30	**NanoHouse / NanoFabNet launches**		
12.30 - 12.45	**Closing remarks, prize giving & Hand-over to CoRs**		
12.45 - 14.00	Lunch		
14.00 - 14.15	**2022 NanoEHS CoR Workshop** Welcome, Introductions & CoRs highlights (2020-2022) – Arno Gutleb (LIST)		
14.15 - 14.45	**Program Overview Horizon Europe** – Jana Drbohlavova (EC) **Programme Overview NNI –** Anil Patri (FDA)		
14.45 - 15.15	**Plenary Keynote: Best practices and strategies for building interdisciplinary and international communities of research –** (Speaker being confirmed)		
15.15 - 15.30	Coffee Break (provided in the x3 breakout rooms)		
15.30 - 17.00	**NanoEHS CORs Breakout Session I** · Ecotoxicity and Human Health CORs (*Session chairs*: Susana Loureiro and Olga Tsyusko-Unrine; Arno Gutleb and Christie Sayes) Discussion topic: Towards One Health – deeper integration of ecotox and human tox	**NanoEHS CORs Breakout Session I** Database and informatics during Nano-Week: Key takeaways (*Session chairs*: Egon Willighagen and Fred Klaessig)	**Training session on NanoSolveIT and NanoCommons modelling tools**
17.00 - 18.00	**NanoSafety Cluster Session** (Chairs: Eva Valsami-Jones and Andreas Falk)		
18.15 - 22.30	Cyprus Tour (mosaics) and Traditional Taverna dinner		

Thursday 23rd June			
	NInChI hands-on 1		
08.30 - 09.00	**Training: Speed dating on decision support systems for SSbD**	**Plenary: NanoEHS CORs Report Out from Breakout 1**	
09.00 - 10.00		**Plenary Keynote: Two decades of nanoEHS research: Moving forward –** George Katalagariankis and Mark Weisner	
10.00 - 10.30	**Wrap-up & Round table on "What is SSbD & how to implement it in real life"**		
10.30 - 11.00	Coffee Break		
11.00 - 11.45	**AOP training**	**Breakout Session II** Nanoplastics characterization, detection, and informatics: Lessons from nanoEHS (1) (*Session chairs*: Vladimir Lobaskin and Anil Patri)	**Breakout Session II** Exposure to aerosolized nanoscale particles (*Session chairs*: Christof Asbach and Paul Westerhoff; Arno Gutleb)
11.45 - 12.30	**OECD TG/DG training**		
12.30 – 14.00	Lunch		
14.00 – 15.00	**Training on NMs grouping**	**Breakout Session III** Nanoplastics characterization, detection, and informatics: Lessons from nanoEHS (2) (*Session chairs*: Vladimir Lobaskin and Anil Patri)	**Breakout Session III** Nano Risk Management & Control: Recent develops from nanosafety to inform policy decisions (*Session chairs*: Ulla Vogel and Khara Grieger) Virtual presentations from: Alba Graciela Avila Bernal (Columbia): Community engagement in Nanosafety using an App Paul Schulte (NIOSH): US perspective on regulation of nanomaterials Maaike Visser/Susan Dekkers (RIVM): Towards health-based nano reference values
15.00 - 15.30	**Task force of NMBP-16 Ambassadors**		
15.30 - 16.00	Coffee Break		
16.00 – 17.00	**Linking SOPs, Instance Maps, ELNs and the NanoCommons KB**	**Closing Plenary** · COR Report Out and Discussion · Final Remarks	
18.30 – 22.30	Dinner with musical performance		

Friday 24th June	
	NInChI hands-on 2
09.00 – 10.30	**Project GAs** (in parallel)
10.30 - 11.00	Coffee Break
11.00 – 12.30	**Project GAs** (in parallel)
12.30 -14.00	Lunch
14.00 – 15.30	**Project GAs** (in parallel)
15.30 – 16.00	Coffee Break
16.00 - late	Optional sightseeing trip and dinner (self-funded)