

4th EU–Asia Dialogue on NanoSafety

CONFERENCE BOOKLET

7TH OF OCTOBER 2020
ONLINE



Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology



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Imprint:

Media owner:
 BioNanoNet Forschungsgesellschaft mbH
 Steyrergasse 17, 8010 Graz, Austria
 Phone: +43 699 155 266 10
office@bnn.at, www.bnn.at

UID: ATU 63046279, FN 285326 y

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Message from the Host

 Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology



VALUE OF “NANOSAFETY FOR INDUSTRY”

World class scientific innovation and industry research allows us to transform ideas into commercially successful products and services. Nanotechnology is helping to considerably improve, even revolutionize, many technology and industry sectors: information technology, medicine, transportation, energy, food safety, environmental science, and among many others. Industry needs clarity how nanosafety can be regulated. Society needs the assurance that the potential risks of nanomaterials will be properly dealt with. Ensuring the safe and sustainable development and application of nanotechnology is essential for commercialization of nanotech-products and for creating added value in Austria. Within the frame of the “Austrian Nanotechnology Action Plan” Austria has set up a research program on nanosafety with the goal to assess possible environment, health and safety risks in Nanotechnology and builds up the necessary level of expertise in its own research system. As no country alone can cover the full range of nanosafety research cooperation and coordination in the European and international context is essential. Within the frame of a bilateral agreement between the Austrian Research Promotion Agency (FFG) and the Chinese Academy of Science (CAS) and the University of Shanghai the Austrian Ministry for Climate Action, Environment, Mobility, Ener-

gy, Innovation and Technology (BMK) could fund several joint nanotech-projects between Austrian Industry and research organizations and institutes of CAS, also in the area of nanosafety. Additionally, Austria is with its company Bionanonet member of the coordination team of the European NanosafetyCluster. Since 2013 the BMK is full member of the “Asia Nano Forum”. We could contribute to several initiatives of this network, especially in workshops on commercialization of nanotechnology and nanosafety and will do that in future. We are happy to host this year the General Assembly of this network together with the 4th “EU-Asia Dialogue on nanosafety. This event is hosted and initiated by the BMK and will be implemented together with The European Commission, the ANF and the BioNanoNet. It has the goal to foster cooperation between European and Asian stakeholders in nanosafety. I wish all participants a successful event and the BMK for sure will help to increase the cooperation with Asia in the area of nanotechnology and nanosafety in the future.

Michael Wiesmüller

Republic of Austria - Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology

Head of Unit - III/I5 Key Enabling Technologies for Industrial Innovation: ICT, Manufacturing and Nanotechnologies

Statement from the European Commission



The development of nanomaterials and advanced materials in general has increased tremendously in complexity over the last decade and are now providing strongly enhanced functionality and adaptability. It is exciting to witness the incredible new capabilities when you are a materials scientist, because it yields new dimensions for material solutions. However, the enhanced functionality and capability often comes at a price! Namely, the strongly increased complexity of the materials that leads to difficulties for recycling and re-use as well as increased carbon footprint and potential toxicity problems through the product lifecycle.

With the launch of the Commissions' "European Green Deal" and its focus on Zero Pollution and sustainability, the Commission is presently preparing a new chemicals strategy for sustainability that should facilitate safe and more sustainable materials in general with less use of scarce and potentially toxic elements. Considering the boundaries of our planet's resources and the current drive towards less waste, less toxic products with longer lifetime and better recyclability – we need to rethink how we design, produce and use new products and the associated nano-materials.

There is an African proverb saying it takes a village to raise a child, it is also valid for the "nano" undertaking. Only if we address the problems globally, we could seek and implement solutions that will work for everyone.



That is why the European Commission supported the Malta Initiative and we encourage broader and active participation of more countries and organizations to provide valuable input. We need our collective efforts to speed up the work on the test guidelines and guidance documents prepared by OECD with a view to address the nano-specific issues. The question of safety has always been a priority and its importance is growing with the widening of application of nano-materials.

In the global village where we are living, we are linked to and depend on each other. The value chains of today are very complex and efficient, but they can be fragile at times, as we are presently witnessing. All the stakeholders need to commit to work on the resilience of global value chains and it is an individual responsibility of every single link to ensure it. In the context of the COVID-19 crisis it has become clearer than before that we need to accelerate the processes related to testing and safety. This will allow us to benefit to a greater extent from the vast potential of nano-materials. It will contribute to finding quicker and more effective solutions and provide additional tools to tackle the health crisis and overcome its detrimental effect on our economies and societies.

I wish you all the best for fruitful discussions!

Søren BOWADT

Deputy Head of Unit
European Commission, DG Research & Innovation, Materials for Tomorrow

Statement of the President of Asia Nano Forum



NANOSAFETY-DIALOGUE BY ASIA NANO FORUM AND EU NANOSAFETYCLUSTER

The novel properties of nanomaterials enable diverse application areas, but the properties of materials can be very different from those on a larger scale and may cause potential unintended hazards to humans and the environment. Systematic studies on safety issues such as standardization, test guideline, risk assessment and management is therefore to be an integral part of the development at the same time as the nanotechnology is developing. To leverage international collaboration, the EU-NSC and ANF have been worked together to organize the Dialogue on NanoSafety since 2017.

As a result of past events, a lot of specific actions have been taken in subgroups “Scientific Data Collaboration”, “Nano-Certification, Nanostandardization”, “Social Dialogue and Governance”, and “NanoSafety and Nanomedicine Characterization”, respectively. Today we are greatly honored to have scientists, especially young scientists and experts from premier institutions in EU and Asian countries

to address and answer issues to meet with societal and industrial needs for the future. This NanoSafety-Dialogue, I believe, will inspire all participants to step forward towards “From discussions to implementation”.

Finally, on behalf of Asia Nano Forum, I am much delighted to welcome all of you to the 4th EU-Asia Dialogue on NanoSafety. I would also like to thank the organization team for organizing this wonderful event, a successful model to further international collaboration in area of nanosafety between EU and Asian countries.

Ting-Kuo Lee

President Asia Nano Forum (ANF)

Statement from the EU-NanoSafetyCluster (EU-NSC) coordination team



Andreas Falk



Flemming R. Cassee



Éva Valsami-Jones

“INTERNATIONALISATION IS KEY TO THE WORK OF THE EU-NSC”

Recent developments have shown the enormous need to interact globally in order to strengthen the scientific dialogue on big issues, from climate change to pandemics, and tackle them fast. For our part, the NanoSafetyCluster has been engaging in this space for a while: looking back to the first EU-Asia-Dialogue, in which the statement “Science without borders” was made by Georgios Katalagariakakis, the Coordination Team made this statement part of its vision.

Many efforts have been placed on knowledge exchange that is made possible by all the digital technologies currently available. For example, the infrastructure project NanoCommons, in collaboration with the nanoinformatic-projects NanoSolveIT and NanoInformaTIX has established a common platform for “sharing scientific data”. This idea originated as an action item from the first dialogue event, and

being well advanced now, it can be seen as one of our success stories.

A second (out of four) action to highlight has been to establish the so-called breakout groups is the “harmonisation and knowledge exchange on social dialogue and risk governance”. The groups have been going from strength to strength providing vision and guidance for future priorities.

Now, within the 4th dialogue in the session on “governance”, the presenters will share the state-of-play in the field and what next steps of implementation can follow here. Even before the present state of progress in the governance field, the third EU-Asia-Dialogue action item “nano-certification and nano-standardisation efforts” started advancing the need of international cooperation. This was done by creating common ground on standards,

supported by the NSC-community through specific task forces that were completed and reported recently (more information and reports about the task forces e.g. on TiO₂, can be found on www.nanosafetycluster.eu).

We now hope that this important action point of “scientific collaboration” will also be served well in the current event, the 4th EU-Asia Dialogue on NanoSafety. We anticipate this event will be once again the platform to continue, renew and develop collaborations in the context of specific technical challenges. This can be done by defining the scope and formulating the impact that can be generated when international excellence is brought together. The NSC-CT will endorse every opportunity for scientific collaboration at international level,

always following the vision of “science without borders”, and will be delighted to see many more global partners joining this dialogue on nanosafety.

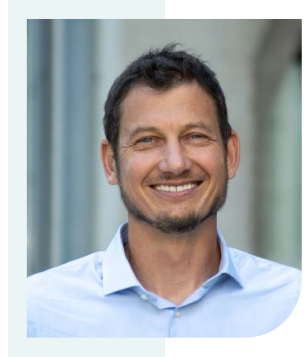
Welcome to you all and we hope this meeting brings you everything that you have hoped for in the international arena.

With best regards,

Andreas Falk,
Flemming R. Cassee,
Éva Valsami-Jones

EU-NSC Coordination Team

Organiser of 4th EU-Asia Dialogue on NanoSafety



“NANOSAFETY – COLLABORATION TOWARDS A MORE SUSTAINABLE SOCIETY”

It is my pleasure to present to you the 4th EU-Asia Dialogue event, which takes place virtually due to the Corona situation around the world. Together with my team at BNN, and supported by Alexander Pogany from the BMK, we prepared an event that shall pave the way from “discussion towards implementation”. Thus, the program evolved from the structure of the previous three dialogue events towards a form, which will increase the impact of the dialogue.

BNN is the scientific organizer of the 4th EU-Asia Dialogue on Nanosafety, October 2020, and will support the further development and future events to strengthen the dialogue globally.

With best regards,

Andreas Falk

CEO of BioNanoNet Forschungsgesellschaft mbH

ABOUT BIONANONET FORSCHUNGSGESELLSCHAFT MBH (BNN)

The BioNanoNet Forschungsgesellschaft mbH (BNN) is a non-profit research organization owned by the BioNanoNet Association that counts currently with 59 member organizations that belongs to various fields like Health & Safety, Data & Sustainability and Enabling Technologies. BNNs’ mission is to support and guide its members and customers towards a sustainable development of connected technologies with the vision to shape the European

high-tech ecosystem to secure a sustainable and prosperous society. By integrating safety, quality and sustainability aspects already in the design phase of a new technology, we support innovative breakthroughs in all sectors. The design process enables us to reach out to the ideal option and find the best solution for each specific use case.

www.bnn.at

Introduction

4th EU–Asia Dialogue on NanoSafety

“FROM DISCUSSIONS TO IMPLEMENTATION”

This workshop is focused towards more synergy between Asian and European countries with respect to safe nanomaterials including standardization and test guideline development. Two major themes will be addressed.

A) The Malta Initiative, activities to speed up the process of updated or developing OECD test guidelines and guidance documents by gathering and developing the essential information that is needed for this process¹.

¹ *The Malta Initiative brings together a group of EU member states, the European Commission (notably the DG RTD, DG ENV, DG GROW and JRC), ECHA, industry and other institutions committed to this aim and welcomes additional international collaborators. In line also with existing procedures at the OECD, any country or organisation with expertise interested in working on adapting existing OECD TGs or developing new OECD TGs and/or GDs is welcome to become an active contributor to the “Malta Initiative”. See <https://www.nanosafetycluster.eu/international-cooperation/the-malta-initiative/>*

B) In addition, this workshop will be on developing a call-for-proposals in which collaboration between EU and Asian countries is enabled. The aim of the meeting is to publish a report (joint paper) about the needs & missing points & common interests EU-US/EU-Asia and which research needs shall be addressed.

This follows the three previous EU-Asia Dialogue Events and a successful meeting last year in Boston, USA: “EU-US PRIORITIES IN NANOSAFETY IDENTIFIED DURING THE BILAT US 4.0 EVENT “FOSTERING EU-US COOPERATION IN NANOSAFETY”. The report will be sent to the EC and MS (e.g. via the EU-NSC and the program committee) as well as to the Asian countries (via ANF), OECD and to the EU-US BILAT colleagues. This shall enable the mentioned stakeholders to step forward towards joint funding of the areas of interest (e.g. joint calls, bilateral agreements on research collaboration, etc.). The format of the meeting is a mix of introduction, overview presentations and breakout sessions.

On behalf of the organization team

Alexander Pogàny (Republic of Austria, Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology) – alexander.pogany@bmk.gv.at

Andreas Falk (BioNanoNet Forschungsgesellschaft mbH, and EU-NanoSafetyCluster Coordination team) – andreas.falk@bnn.at

Agenda

4th EU-Asia Dialogue on NanoSafety

"FROM DISCUSSIONS TO IMPLEMENTATION"

7th of October 2020, 9:00 – 15:00, webmeeting

GoToMeeting link: <https://www.gotomeet.me/BioNanoNet/eu-asia-dialogue-on-nanosafety>

08:30 – 09:00 **Technical start of the meeting** [test-run of virtual tool]

09:00 – 09:15 **Welcome addresses**

Alexander POGÁNY (Republic of Austria, Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology)

Soren BOWADT (European Commission's Research and Innovation Directorate)

Ting-Kuo LEE (Asia Nano Forum - ANF - President)

09:15 – 10:55 **KEY NOTE LECTURES**

09:15 – 09:25 **Ramjitti INDARAPRASIRT** (NANOTEC Thailand; Asia Nano Forum - ANF): „Nanosafety Network for Industry”

09:25 – 09:35 **Eugenia VALSAMI-JONES** (University of Birmingham, Great Britain; EU NanoSafety Cluster - NSC): “Major Scientific Achievements of the EU-NSC in Past Five Years”

09:35 – 09:45 **Perng-Jy TSAI** (Department of Environmental & Occupational Health, College of Medicine, National Cheng Kung University, Taiwan): “Using a Modified Electrical Aerosol Detector to Predict Nanoparticle Exposures to Different Regions of the Respiratory Tract for Workers in a Carbon Black Manufacturing Industries”

09:45 – 09:50

COMFORT BREK

09:50 – 10:00

Monique GROENEWOLD (RIVM - National Institute for Public Health and the Environment, Netherlands): “Risk Governance Council (NMBP-13°3)”

10:00 – 10:10

Ali BEITOLLAHI (Iran Nanotechnology Initiative Council): “A Platform Towards Enhanced Synergy”

10:10 – 10:20

Damjana DROBNE (University of Ljubljana, Slovenia): “Joint Activity Towards ISO Standardization”

10:20 – 10:25

COMFORT BREAK

10:25 – 10:25

Alok ADHOLEYA (TERI-Deakin Nanobiotechnology Centre, Gurugram, India): “Guideline for Evaluation of Nano-based Agri-Input and Food Products in India”

10:35 – 10:45

Flemming CASSEE (RIVM - National Institute for Public Health and the Environment, Netherlands; EU NanoSafety Cluster - NSC): “Knowledge Transfer from EU NanoSafety Cluster Project Towards OECD WPMN Projects”

10:45 – 10:55

Mar GONZALEZ (Organization for Economic Co-operation and Development - OECD): „How OECD Deals with Test Guidelines and Guidance Documents to Accommodate Testing of Nanomaterials”

10:55 – 11:10

COMFORT BREAK

11:10 – 11:40**SHORT SPEECHES OF YOUNG SCIENTISTS****11:10 – 11:20**

Gloria ROSE (Institute of Technology Assessment, Austrian Academy of Sciences, Austria) and **Anna PAVLICEK** (Institute of Technology Assessment, Austrian Academy of Sciences - ITA and Institute of Waste Management of the University of Natural Resources and Life Sciences – BOKU, Austria): “Bridging Sustainability and Innovation in Nanotechnology Governance”

11:20 – 11:30

Florian PART (University of Natural Resources and Life Sciences, Austria): “Methods for Risk Assessment of Graphene-Based Products”

11:30 – 11:40

Mar Christian QUE (Industrial Technology Development Institute, Department of Science and Technology, Philippines): „An Evaluation of Acute Toxicity and Aquatic Toxicity of Titanium Dioxide Nanoparticles“

11:40 – 12:30**LUNCH AND REFRESHING BREAK****12:20 – 13:15****Session A – Thematic Collaboration Fields**

Chair: **Thomas KUHNBUSCH** (Federal Institute for Occupational Safety and Health, Germany)

Co-chairs: **Wanee CHINSIRIKUL** (NANOTEC Thailand), **Flemming CASSEE** (RIVM - National Institute for Public Health and the Environment, Netherlands), **Mar GONZALEZ** (Organization for Economic Cooperation and Development - OECD)

How/what to contribute to the Malta Initiative?

what has been done; identified topics/thematic areas and what needs to be done and how could be contributed

13:15 – 13:20**COMFORT BREAK**

13:20 – 14:15

Session B – Risk Governance – Where Do We Stand, Where Do We Go

Chair: **Janeck SCOTT-FORDSMAND** (Department of Bioscience, Aarhus Universitet, Denmark) Co-Chair: **Tae Geol LEE** (Korea Research Institute of Standards and Science), **Monique GROENEWOLD** (RIVM - National Institute for Public Health and the Environment, Netherlands), **Maria DUSINSKA** (NILU – Norwegian Institute for Air Research, Norway);

Aim: common understanding about the term risk governance in the group; output: identification of best practices (building on the discussions of previous EU-Asia-Dialogue events).

14:15 – 14:20

COMFORT BREAK

14:20 – 15:00

REFLECTIONS, ANNOUNCEMENT AND CLOSING REMARKS

Reflections:

Soren BOWADT (European Commission's Research and Innovation Directorate);

Ting-Kuo LEE (Asia Nano Forum - President)

Anke JESSE (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany; Malta Initiative)

Announcement 5th EU-Asia Dialogue

Ruslinda A. RAHIM (Ministry of Science, Technology and Innovation, Malaysia)

Closing remarks:

Alexander POGÁNY (Republic of Austria, Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology)

15.00

END OF MEETING

Webmeeting – Link to the online meeting

Please join the EU–ASIA Dialogue meeting from your computer, tablet or smart-phone.

GoToMeeting link: <https://www.gotomeet.me/BioNanoNet/eu-asia-dialogue-on-nanosafety>

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More phone numbers:

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France: +33 170 950 594

Germany: +49 891 2140 2090

Ireland: +353 15 360 728

Italy: +39 0 230 57 81 42

Netherlands: +31 207 941 377

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Participation list

Adholeya	Alok	Teri-Dekin Nanobiotechnolgy Centre	India
Aueviriyavit	Sasitorn	NANOTEC	Thailand
Aungkavattana	Pavadee	NANOTEC	Thailand
Baumgarten	Daniel	UMIT - Private Universtiy for Health Sciences, Medical Informatics and Technology	Austria
Beitollahi	Ali	Iran Nanotechnology Initiative Council	Iran
Bøwadt	Søren	European Commission's Research and Innovation Directorate	Belgium
Briones	Annabelle	Industrial Technology Development Institute	Philippinen
Cassee	Flemming R.	National Institute for Public Health and the Environment - RIVM	Netherlands
Catalan	Julia	Finnish Institute of Occupational Health	Finland
Chang	Chia-Seng	Academia Sinica	Taiwan
Chinsirikul	Wanee	NANOTEC	Thailand
Drishti	Garg	TERI - The Energy and Resources Institute	India
Drobne	Damjana	University of Ljubljana	Slovenija
Dusinska	Maria	NILU – Norwegian Institute for Air Research	Norway
Ekamornthanakul	Wipaporn	Nanotec Thailand	Thailand
Falk	Andreas	BNN - BioNanoNet Forschungsgesellschaft mbH	Austria
Frey	Sabine	Bundesamt für Gesundheit	Switzerland
Friedrichs	Steffi	AcumenIST	Germany
Geruka	Dominic	Natioanl Nanotechnology Center	Belgium
Gonzalez	Mar	Organization for Economic Co-operation and Development - OECD	France
Groenewold	Monique	RIVM - National Institute for Public Health and the Environment	Netherlands
Gross	Laura	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Germany
Gutleb	Arno	LIST - Luxembourg Institute of Science and Technology	Luxembourg
Helan	Helme	National Nanotechnology Center	Malaysia
Indaraprasirt	Ramjitti	NANOTEC	Thailand
Jagersbacher	Simone	BNN - BioNanoNet Forschungsgesellschaft mbH	Austria
Jeamrujekul	Hemaracht	NANOTEC	Thailand
Jesse	Anke	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Germany
Johari	Seyed Ali	University of Kurdistan	Kurdistan
Jung	Jiyun	Korea Nanotechnology Research Society	Korea
Kaineder	Katrin	Danube University Krems	Austria
Kochar	Mandira	The Energy and Resources Institute	India

Koide	Yasuo	National Institute for Materials Science (NIMS)	Japan
Kuhlbusch	Thomas	Federal Institute for Occupational Safety and Health (BAuA)	Germany
Kumar	Subodh	University of the Basque Country	Spain
Ladenhauf	Nikolaus	BNN - BioNanoNet Forschungsgesellschaft mbH	Austria
Lee	Tae Geol	Korea Research Institute of Standards and Science	Korea
Lee	Ting-Kuo	National Sun Yat-sen University	Taiwan
Malyska	Aleksandra	European Commission DG RTD	Belgium
Marjovi	Ali	Iran Nanotechnology Innovation Council	Iran
Markouli	Christina	European Commission RTD	Belgium
Meili	Christoph	Innovationsgesellschaft	Switzerland
Nishimura	Chikashi	National Institute for Materials Science (NIMS)	Japan
Papadiamantis	Anastasios	University of Birmingham	United Kingdom
Panagiotis	Isigonis	Ca Foscari University of Venice	Italy
Part	Florian	University of Natural Resources and Life Sciences - BOKU	Austria
Pavlicek	Anna	Austrian Academy of Sciences, ITA	Austria
Pogany	Alexander	Austrian Ministry of Climate Action - BMK	Austria
Prenner	Stefanie	Brimatech Services GmbH	Austria
Pushplata Prasad	Singh	TERI-Deakin Nanobiotechnology Centre	India
Que	Mar Christian	Industrial Technology Development Institute	Philippinen
Rahim	Ruslinda A.	National Nanotechnology Center	Thailand
Rose	Gloria	Institute of Technology Assessment (ITA/ÖAW)	Austria
Saengmanee	Khanittha	Pathum Thani	Thailand
Salari Joo	Hamid	Tarbiat Modares University	Iran
Scott-Fordsmand	Janeck	Aarhus University	Denmark
Širnik	Robert	Mediterranean Monitoring Institute	Slovenija
Srivastava	Shivani	Teri-Dekin Nanobiotechnology Centre	India
Suwan	Benyapa	NANOTEC	Thailand
Thongkam	Waluree	NANOTEC	Thailand
Tsai	Perng-Jy	National Cheng Kung University	Taiwan
Tseng	Huan-Chi	Academia Sinica	Taiwan
Valsami-Jones	Eva	University of Birmingham	United Kingdom
Vassileva	Rossitza	European Commission	Belgium
von Wyl	Alex	Innovationsgesellschaft	Switzerland
Zarrabi	Ali	Sabanci University	Turkey

Welcome session

ALEXANDER POGÁNY

Republic of Austria, Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology

Contact: alexander.pogany@bmk.gv.at



Alexander Pogány has his master in Microbiology and worked for about 3 years at Baxter Bioscience as validation expert in the Quality Control. Since 2004 he works in the Austrian Ministry for climate change, environment, mobility, energy, innovation and technology as senior expert in the national and international research policy in the area of industrial technologies (Nanotechnology, Materials research and production). This includes the coordination of several research programmes. He is Austrian Delegate for the H2020 NMBP Framework programme, of the OECD Working Party BNCT (Bio, Nano and converging Technologies) and WPMN (Manufactured Nanomaterials), and of Mirror Groups in several European Technology Platforms and Eureka-Cluster.

SØREN BOWADT

European Commission's Research and Innovation Directorate

Contact: Soren.Bowadt@ec.europa.eu



Søren Bøwadt is the Deputy Head of Unit for the “Materials for Tomorrow” unit of the European Commission's Research and Innovation Directorate in Brussels. His main educational background in organic synthetic and analytical chemistry has been obtained from the University of Odense, Denmark. After Ph.D. studies at the European Joint Research Centre in Ispra in Italy, he spent a total of 3 years in the United States, working first at the University of North Dakota in Grand Forks, and secondly as Product Specialist at LECO Corporation in St. Joseph, Michigan. He moved on to a position as Principal Chemist at the Water Quality Institute in Hørsholm (Denmark) before joining the Measurement and Testing unit of the European Commission's Research Directorate as a Scientific Officer at the end of 1999. Since July 2003, he has been working for the Directorate for Industrial Technology in DG Research and Innovation. Søren Bøwadt has been responsible for over 150 scientific projects within DG Research and Innovation in various areas of natural science and has over the years published more than 50 papers in various areas of chemistry related research as well as setting up the SPIRE public private partnership.

TING-KUO LEE

Asia Nano Forum - President

Contact: tklee@phys.sinica.edu.tw



Academician, Academia Sinica, Taiwan

Research Chair Professor, Dept. of Physics, National Sun Yat-sen University, Taiwan (2019-)

Chairman, Taiwan Nanotechnology Industry Development Association (TANIDA) (2019-)

Director, Institute of Physics, Academia Sinica, Taiwan (2012-2018)

Co-Executive Director, National Science and Technology Program for Nanoscience and Nanotechnology, Taiwan (2004-2006)

Key note lectures

RAMJITTI INDARAPRASIRT

NANOTEC Thailand; ANF

Contact: ramjitti@nanotec.or.th



Title of presentation: „**Nanosafety Network for Industry**”

Education:

Master’s in International Administration

Program in Intercultural Management, School for International Training, Brattleboro, Vermont, USA (1991)

Professional career:

October 1, 2015 – present: Manager, Nanosafety Alliance Section, National Nanotechnology Center (NANOTEC), National Science and Technology Development Agency (NSTDA)

May 2010 – Sept. 2015: Manager, Public Relations Section, National Nanotechnology Center (NANOTEC), National Science and Technology Development Agency (NSTDA)

2004 – May 2010: Head of Public Relations Section, National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency (NSTDA)

1992 – 2004: Business Development Manager, Pac Rim International Co., Ltd.

1992 – 1998: Program Manager, Canadian Executive Service Organization (CESO)

Ramjitti Indaraprasirt is currently the manager of the Nanosafety Alliance department at the National Nanotechnology Center (NANOTEC), the leading agency on nanotechnology development in Thailand. NANOTEC is one of four research agencies operating under the jurisdiction of the National Science and Technology Development Agency (NSTDA) and the Ministry of Science and Technology (MOST).

Prior to joining NANOTEC, Ramjitti spent 6 years at the National Center for Genetic Engineering and Biotechnology (BIOTEC) where he delivered on a range of topics for the development of industry, agriculture, natural resources, environment and consequently the social and economic well-being of Thai people.

Ramjitti started his professional journey at the Canadian Executive Service Organization (CESO) and as Business Development Manager at Pac Rim International (Bell Helicopter representative for the Thai market). He holds a Master's degree in International Administration from the School for International Training, Brattleboro, Vermont, USA.

EUGENIA VALSAMI-JONES

University of Birmingham, United Kingdom; EU NanoSafety Cluster - NSC

Contact: e.valsamijones@bham.ac.uk



Title of presentation: **“Major Scientific Achievements of the EU-NSC in Past Five Years”**

Eugenia (Éva) Valsami-Jones is a Professor of Environmental Nanoscience at the University of Birmingham, where she is also Director of the Facility for Environmental Nanoscience Analysis and Characterisation (FENAC, www.birmingham.ac.uk/facilities/fenac) and Director of the MRes program on Environmental and Biological Nanoscience. She has coordinated FP7 projects NanoReTox, ModNanoTox and NanoMILE and is currently coordinating H2020 project ACEnano (<http://acenano-project.eu>). She is also leading the EC's NanoSafety Cluster (www.nanosafetycluster.eu).

Professor Valsami-Jones' research focuses around the mechanisms involved in nanoscale processes in a biological and environmental context. She has studied the reactivity and potential toxicity, fate and transformations of nanomaterials in the environment. She has pioneered the development of traceable stable-isotope labelled nanomaterials and is currently working on the development of analytical solutions for the improvement in speed and quality of identification of nanoscale objects in complex matrices.

Professor Valsami-Jones was the Mineralogical Society's Distinguished Lecturer for 2015 and the Distinguished Guest Lecturer and Medalist of the Royal Society of Chemistry for 2015. She is currently a Royal Society Wolfson Fellow.

PERNG-JY TSAI

Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University

Contact: pjtsai3276@gmail.com



Title of presentation: **"Using a Modified Electrical Aerosol Detector to Predict Nanoparticle Exposures to Different Regions of the Respiratory Tract for Workers in a Carbon Black Manufacturing Industries"**

Perng-Jy (PJ) Tsai, Ph.D., currently serve as a distinguished professor of the Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University in Taiwan. Professor Tsai was awarded a BS and MS degree in environmental engineering from the Chung Hsing University in 1981, and Cheng Kung University in 1985 in Taiwan, respectively. He served as a governmental industrial hygiene inspector from 1986 to 1991. He pursued his doctoral degree in the University of Minnesota and was awarded a PhD in 1995 specialized in the environmental and occupational health field. He is a certified professional engineer in both environmental engineering and industrial hygiene in Taiwan. He served as the president of Taiwan Occupational Health Association (TOHA) from 2006 to 2008 and has become the president emeritus of TOHA since 2009. From 2011 to 2013, he also served as the dean of the School of Public Health, China Medical University, Taiwan. His research interests include workplace exposure assessment, health-risk assessment, ventilation control, basic aerosol science, and aerosol sampler development. Till now, Professor Tsai has published more than 120 peer-reviewed SCI journal papers in the environmental and occupational science field.

MONIQUE GROENWOLD

RIVM - National Institute for Public Health and the Environment, Netherlands

Contact: monique.groenewold@rivm.nl



Title of presentation: **"Risk Governance Council (NMBP-13°3)"**

Co-chair of session B **"Risk Governance – Where Do We Stand, Where Do We Go"**

Monique Groenewold (Msc.) is senior coordinator and policy advisor Nanotechnology and Advanced materials at Dutch Institute for Public Health and the environment (RIVM). Since 2019 she is coordinator of H2020 NMBP-13 project Gov4Nano: Meeting the needs of nanotechnology - Implementation of Risk Governance. In collaboration with sister NMBP-13 projects RiskGone and NanoRigo she is dedicated to develop an improved system for Risk Governance of nanotechnology in Europe.

From here position as Head of the Dutch Knowledge and Information Centre Risks of Nanotechnology (KIR nano; since 2012) she is responsible for providing independent and reliable information for policy makers and the general public on human health and environmental risks of nanotechnology. KIR nano is represented in all national and international forums on nanomaterials such as ISO, ECHA working group on Manufactured Nanomaterials, OECD WPMN (Monique is Head of the Dutch Delegation and co-chair of the OECD WPMN).

She studied Biomedical Sciences and besides here current positions she worked for several years as an occupational hygienist, held various positions in the international research field of chemicals and safety including senior project manager, product manager and team manager.

ALI BEITOLLAHI

Iran Nanotechnology Innovation Council & Iran University of Science and Technology - IUST

Contact: beitolla@iust.ac.ir



Title of presentation: **"A Platform Towards Enhanced Synergy"**

Educational History:

- PhD, Leeds University, Materials Science, U.K. 1992.
- Post Doc., Leeds University, U.K. 1992- .

Professional history:

- Materials and Energy Research Center (MERK), Tehran, Iran, 1982-1986 as research assistant.
- Leeds University, School of Materials, Thin Film Group, 1992- as Post Doc.
- Emeritus Professor at Dept. of Metallurgy & Materials Eng., IUST, 1993-2018.
- Supervised more than 80 MSc and 15 PhD students on advanced and nanomaterials.
- Published more than 170 papers in different national and ISI journals and 1 US patent.

Industrial research projects: More than 20 successfully finished industrial research projects supported by various Iranian local industries mainly in the field of advanced materials and nanomaterials.

Industrial consultation:

- Iranian electronic industries.
- Magnetic ferrite Co. Ltd.

Establishment of Lab: Electroceramic & magnetic ferrite, Nanotechnology Center (IUST).

Membership in various institutions & scientific societies:

- Member of Iranian nanotechnology innovation council since 2001.
- Former member of director board of Iranian nanotechnology society.
- Former director of Iranian nanotechnology infrastructure development committee.
- Director of Iranian nanotechnology standardization committee, INIC.

- Former director of international collaborations department, INIC.
- Member of director board of center of excellence for advanced materials (IUST) till 2018.
- Former member of director board of Iranian ceramic society.

Awards granted:

- Top scientist IUST (2007).
- Top scientist amongst all research institutions and universities in Tehran province (2008).
- Best research award, Mobarakeh Steel Complex (2003).

Industrial consultation: Iranian electronic industries and Magnetic ferrite Co. Ltd.

Area of expertise: Nanomaterials, Advanced ceramics, Nano magnetic materials, Mesoporous materials

DAMJANA DROBNE

University of Ljubljana, Slovenia

Contact: damjana.drobne@bf.uni-lj.si



Title of presentation: **“Joint Activity Towards ISO Standardization”**

Prof. Dr. Damjana Drobne, head of the group for Nanobiology and Nanotoxicology at Biotechnical Faculty, University of Ljubljana and professor for (environmental) toxicology with thirty years of research experiences. Her group participated in different 7. FP and Horizon 2020 EU projects (NanoMile, NanoValid, NanoFase, NANOROGO, Pandora). At a national level, her group is partner in two national centers of excellence (CO NAMASTE and CO NanoCenter). Since 2001, she is continuously coordinating national research projects. She is a founder and vice chair of doctoral study program Nano sciences at doctoral study program Biosciences at University of Ljubljana. She is an advisor to Slovenian Innovation Hub-European Economic Interest Grouping (<http://www.sis-egiz.eu/>) as an expert in toxicity/safety of new- and advanced materials. Recently, she is involved in standardization and knowledge transfer activities in the area of nanomaterials and biotechnological applications.

ALOK ADHOLEYA

TERI-Deakin Nanobiotechnology Centre, Gurugram, India

Contact: aloka@teri.res.in



Title of presentation: **“Guideline for Evaluation of Nano-based Agri-Input and Food Products in India”**

Dr. Adholeya has over past 35 years’ significant experience and expertise in the area of translational research and reaching out to millions of common people worldwide through his developed technologies which includes, a new biological organisms for soil fertility and crop productivity enhancement known as “Mycorrhizal” bioremediation of industrial solid waste aeron chemical and fertilizer industries, He has developed more than 25 IPR’s and commercialized most of them through technology transfer to industries. His current involvement in the area of nano intervention in agriculture, micro encapsulation technology developed for beneficial yet fragile microorganisms and seed coating technology are few which are making inroads to benefit mankind. Dr. Adholeya is also Chairman of National task force of Department of Biotechnology, Ministry of science and technology Government of India on “Biological agents “He was conferred most prestigious award from Science and technology Ministry “Product, process and technology award 2004 “for his exemplary and only technology in the world of commercial production of Mycorrhiza a next generation bio fertilizers. Through this advancement India being developing country provided technology to developed countries such as USA. His path breaking work received Marrico foundation award for addressing global problem of industrial solid wastes remediation Dr. Alok Adholeya currently leads the research and technology platforms on mycorrhizal research, Nanobiotechnology, micropropagation technology, community farming and livelihood with over 250 employees. Dr. Adholeya has chaired numerous advisory committees on agriculture and bioremediation, published over 170 research articles, guided 26 doctoral students and many masters’ students and has been an Honorary Professor of Deakin University, Australia since March 2010. He also worked as Director, Product and Technology Development at Mycorrhizal Applications, Oregon, USA between 2014-2017, a subsidiary company of Sumitomo Chemicals. He currently Heads National Centre of Excellence in Agri nanotechnology of Govt. of India, Department of Biotechnology.

FLEMMING CASSEE

RIVM - National Institute for Public Health and the Environment, Netherlands; EU NanoSafety Cluster- NSC

Contact: flemming.cassee@rivm.nl



Title of presentation: **"Knowledge Transfer from EU NanoSafety Cluster Project Towards OECD WPMN Projects"**

Co-chair of session A **"Thematic Collaboration Fields"**

Professor Flemming R. Cassee is an inhalation toxicologist at the Netherlands National Institute for Public Health and the Environment. In this position he is involved in research into adverse health effects from airborne nanomaterials and particulate matter (fine dust) and gaseous components (e.g. ozone, nitrogen dioxide) in the ambient air. In addition to this, Flemming Cassee is professor of inhalation toxicology at the Institute of Risk Assessment Sciences of the Utrecht University, the Netherlands.

Flemming Cassee is leading projects of multidisciplinary teams. These teams include amongst others toxicologists, epidemiologists, modelers and risk assessors. He has regularly published scientific reports and articles in international journals and presents research results at international conferences. Flemming Cassee is senior scientific advisor to the Dutch Ministry of Infrastructure and the Environment, the Health Council of the Netherlands, World Health Organization and the Organization for Economic Co-operation and Development (OECD), and others. Furthermore, he is Editor-in-Chief of the journal Particle and Fibre Toxicology and a reviewer/editor of a number of other international scientific journals.

He is member of the coordination team of the European NanoSafetyCluster, overarching EU funded nanosafety projects and involved in the Malta Initiative and participating in EU funded project NanoHarmony and SUNSHINE, PATROLS.

MAR GONZALEZ

Organization for Economic Co-operation and Development -
OECD

Contact: mar.gonzalez@oecd.org



Title of presentation: **"How OECD Deals with Test Guidelines and Guidance Documents to Accommodate Testing of Nanomaterials"**

Co-chair of session A **"Thematic Collaboration Fields"**

Mar Gonzalez joined the Organisation for Economic Co-operation and Development (OECD) in 2004 to work in its Environment, Health and Safety Division. Over the years, she has had a number of responsibilities addressing the safety/ risk assessment and international harmonisation in the regulation of chemicals and products of modern biotechnology. Since she joined OECD, she has been involved in various technical programmes covering biosafety, the safety of novel foods and feeds and chemical accidents prevention, preparedness and response. From 2010 to 2018, she became responsible for the outreach work on chemicals, as well as reviewing the legal frameworks of non-OECD countries seeking a partnership at OECD. In joining the OECD, Mar had the opportunity to be involved in the establishment of the Working Party on Manufactured Nanomaterials in 2006. Since then, Mar has been working on the implementation of its programme of work, which includes the development of tools for assessing the hazards of nanomaterials, and more recently looking at the next generation of materials to ensure their safety. Mar has a BA in Physical Anthropology, a Master degree in Biotechnology and Ethics from the University of Sheffield, UK and a Diploma on Biosafety.

Short speeches of young scientists

GLORIA ROSE

Institute of Technology Assessment, Austrian Academy of Sciences

Contact: gloria.rose@oeaw.ac.at



Title of presentation: **“Bridging Sustainability and Innovation in Nanotechnology Governance”**

Gloria Rose holds a master’s degree in Human Ecology and is currently employed as a Junior Scientist in projects concerning nanotechnology and sustainable cities.

She is currently working on the NanoTrust project, mainly concerned with the state of knowledge on potential health and environmental risks of nanotechnology, knowledge communication and the cultivation of a nano governance network. The project is dedicated to assisting policy-makers in issues surrounding the safety of nanotechnology applications, representing a continuous accompanying process capable of addressing new arising issues as the technology matures and the regulatory situation changes.

Within her second ongoing project, Pop-Up Housing, she regards temporary housing as spaces for innovative sustainability.

Past projects include the SafeNanoKap project, which examined the applicability of the safe-by-design concept in context of development of nanomaterials and -products; the EDEM project, dedicated to examining experiences had with the employment of digital tools in the areas of participative and direct democracy; and Robotics in Austria, which summarized the current status of robotics in Austria. Within the SmartCare project she examined the use of information and communication technologies in the healthcare sector of the city of Vienna.

ANNA PAVLICEK

Institute of Technology Assessment, Austrian Academy of Sciences - ITA and Institute of Waste Management of the University of Natural Resources and Life Sciences – BOKU, Austria

Contact: anna.pavlicek@oeaw.ac.at



Title of presentation: **“Bridging Sustainability and Innovation in Nanotechnology Governance”**

Anna Pavlicek holds a master’s degree in Zoology as well as in Environmental Management and Ecotoxicity. She is currently employed as a Junior Scientist at the Institute of Technology Assessment of the Austrian Academy of Sciences and the Institute of Waste Management of the University of Natural Resources and Life Sciences in projects concerning nanotechnology.

She is currently working on the NanoTrust project, mainly concerned with the state of knowledge on potential health and environmental risks of nanotechnology, knowledge communication and cultivating a nano governance network. The project is dedicated to assisting policy-makers in issues surrounding the safety of nanotechnology applications, representing a continuous accompanying process capable of addressing new arising issues as the technology matures and the regulatory situation changes over time.

Within her second ongoing project, NanoStandard, she aims to intensify the communication between the standardisation bodies and the Austrian nano expertise in order to obtain clear ideas on which goals Austria and Austrian representatives can pursue in international nano standardisation.

Within the SolarCircle project she is engaged in the discussion of the material flow of a future-oriented solar cell technology. It aims to identify concepts and associated materials in the context of solar cell technology in order to provide a basis for decision-making for future developments.

Past projects include the SafeNanoKap project, which examined the applicability of the safe-by-design concept in context of development of nanomaterials and –products, the NanoADD project, dedicated to examining the role of „Advanced Nanocomposites“ in the circular economy of plastics and their impact on the recyclability of the products.

FLORIAN PART

University of Natural Resources and Life Sciences, Austria

Contact: florian.part@boku.ac.at



Title of presentation: **“Methods for Risk Assessment of Graphene-Based Products”**

Dr. Florian Part is Senior Scientist at the University of Natural Resources and Life Sciences, Vienna, Department of Water-Atmosphere-Environment, Institute of Waste Management (ABF-BOKU). His research focuses on investigating the environmental fate of novel chemicals and emerging pollutants, such as engineered nanomaterials (ENMs) and nanowastes. Novel tools for risk assessment and ENM characterization are under development in cooperation with the Department of Nanobiotechnology, Institute for Synthetic Bioarchitectures (SynBio-BOKU). He is currently involved in many nanosafety-related research projects (e.g., SolarCicle, SafeLiBatt or SAFEGRAPH) and is leader of the International Waste Working Group (IWWG) “Task Group on Engineered Nanomaterials in Waste” as well as official delegate of AUSTRIAN STANDARDS (working group “nanotechnologies”).

MAR CHRISTIAN QUE

Industrial Technology Development Institute, Department of Science and Technology, Philippines

Contact: mcoque04@gmail.com



Title of presentation: **“An Evaluation of Acute Toxicity and Aquatic Toxicity of Titanium Dioxide Nanoparticles”**

ELIGIBILITY: 2011 Civil Service Professional

ACADEMIC BACKGROUND:

2012-present: Master of Science in Materials Science and Engineering,
Mapúa Institute of Technology, Manila, Philippines. Units Earned: 31 Units

2007-2011: Bachelor of Science in Materials Science and Engineering,
Major in Semiconductors Materials and Processing,
Mapúa Institute of Technology, Manila, Philippines.
Gold Medalist

2003-2007: Secondary Education: High School
Rogationist College, Silang, Cavite, Philippines.

EMPLOYMENT HISTORY

2017-present: Science Research Specialist II
Materials Science Division, Industrial Technology Development Institute, Department of Science and Technology, Philippines

2012-2017: Science Research Specialist I
Materials Science Division, Industrial Technology Development Institute, Department of Science and Technology, Philippines

Awards – Publication

2018: DOST International Publication Award

2014: DOST International Publication Award

2013: DOST International Publication Award

Committee

2013-2016: Association of Employees in Scientific Endeavor
Board Member

Failure Analysis

Involvement: Engaged in solving client-specific case of semiconductor device failure, using Time-of-flight Secondary Ion Mass Spectrometer and Field Emission Transmission Electron Microscope.

Trainer: Trainer in ADMATEL for Time of Flight - Secondary Ion Mass Spectrometry (ToF-SIMS) Topics: Operation of ToF-SIMS (Overview, Surface Spectroscopy, Depth Profiling, Surface Mapping). Duration: 6 months.

Speaker: Presented „Ceramic Water Filter: an ITDI Experience“ in Technology Caravan of DOST-CAR „Kordilyera Para Sa Agham at Teknolohiya: A DOST-CAR S&T Roadshow“ held at Bontoc, Mt. Province. April 29, 2016

Presented „Advanced Testing Facilities for Failure Analysis and Materials Characterization“ in 1st Institute of Materials Engineers of the Philippines Conference held at Quezon City Philippines. July 31, 2014

Session A – Thematic Collaboration Fields

“How/what to Contribute to the Malta Initiative?”

Chair: **THOMAS KUHMBUSCH**

Federal Institute for Occupational Safety and Health, Germany

Contact: Kuhlbusch.Thomas@baua.bund.de



Dr. Thomas Kuhlbusch is employed at the Federal Institute for Occupational Hygiene and Health, Germany. He is chemist by background and received his PhD in 1994 in analytical chemistry while working at the Max Planck Institute for Air Chemistry. During his post doc period from 1994 to 1997 he had a stipend by the American Academy of Sciences and worked at the US EPA on air chemistry and climate change. In 1997 he moved to the University of Duisburg-Essen to conduct research on particle science with a focus on fine dust and nanoparticle. Dr. Kuhlbusch is still teaching at the university sustainable nanotechnology, has published more than 120 peer reviewed articles and has an H-factor of 41 (Scopus). In 2001 he moved with his team to a research institute, IUTA e.V., where he conducted research on (nano)particle measurement technology, environmental behaviour, exposure assessment, workplace safety, and related epidemiological and toxicological studies. In 2016 he changed his position to become unit head “hazardous substances management” where his focus is set to achieve safe handling and use of hazardous substances at work by advising on regulatory issues on national and international level in OSH, CLP and REACH regulation. Dr. Kuhlbusch is also leading the EU project NanoHarmony, leading a work package related to OECD TG/GD developments in the EU project Gov4Nano, is member of the German delegation to the OECD- WPMN and member of the Malta Initiative Board.

Co-chair: **WANNEE CHINSIRIKUL**

NANOTEC Thailand

Contact: wannee@nanotec.or.th



Dr. Chinsirikul received her B.Sc. (Honors) in Polymer & Textile from Chulalongkorn University (Thailand), M.S. in Polymer Science and Ph.D. in Materials Science and Engineering from The Pennsylvania State University (USA). Her primary area of research is polymer blends, film processing and plastic packaging.

Research work of her team on the ,breathable film for tropical fresh produce‘ has been commercialized and received several technological awards in Thailand and at the international conference and exhibition. She also has participated in consulting and contract R&D projects relating to polymer extrusion and product development. Dr. Chinsirikul is co-author of a book chapter entitled ,Current and innovative Packaging Technologies for tropical and Subtropical Fruits‘ in Tropical and Subtropical Fruit Processing and Packaging, Siddiq M (Editor), John-Wiley Publishing Co., Ames, Iowa, USA, 2012.

She has publications and presented technical papers at various ,Polymer Processing‘ and ,Packaging‘ international conferences. At present, she is an executive committee member of Asian Workshop on Polymer Processing (AWPP) and a board member of International Association of Packaging Research Institutes (IAPRI).

Session B – Risk governance – where do we stand, where do we go

Chair: **JANECK J. SCOTT-FORDSMAND**

Department of Bioscience, Aarhus Universitet, Denmark

Contact: jf@bios.au.dk

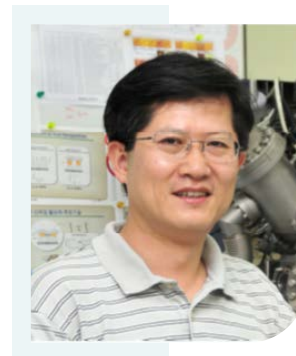


Dr. Janeck J. Scott-Fordsmand has been working for more than 20 years on environmental toxicology. He is an expert in environmental risk assessment. He is continuously advising on development of test guidelines, guidance document, testing strategies, risk assessment and governance for various national EPAs, Nordic Council, EU, EU-US, and OECD WPMN. His work has a global perspective, he has worked in many parts of the world, and is continuously involved in global-networks. He is an experienced project leader and advisor of both national and international nano-related projects. He is continuously involved in many large-scale projects dealing with nanotechnology covering wide array of industrial areas. He is currently involved in three European large-scale European projects, being the coordinator of the NMBP13 on Governance - with emphasis on how society can Govern Nanotechnologies in a European and Global Perspective, including which structures are required for such Governance. He is continuously supervising Post Doc and PhD students, publishing (200 plus) in high impact peer-reviewed journals and governmental advisory reports.

Co-chair: **TAE GEOL LEE**

Korea Research Institute of Standards and Science - KRISS

Contact: tglee@kriss.re.kr



Academic background:

1989, B.S. in Chemistry, Seoul National University

1991, M.S. in Physical Chemistry, Seoul National University (Supervisor: Myung Soo Kim)

Thesis Title: Raman Spectroscopic Investigation on Adsorption of Some Aromatic Thiols on Silver Surface

1995, PhD. in Physical Chemistry, Seoul National University (Supervisor: Myung Soo Kim)

Thesis Title: Reaction Dynamics of the Four-centered Elimination Reaction

$\text{CH}_2\text{OH}^+ \rightarrow \text{CHO}^+ + \text{H}_2$; Measurement of Kinetic Energy Release and Classical Trajectory Calculation

Professional career:

2020 - current: Vice-President, KRISS

2002 - 2019: Head, Center for Nano-Bio Measurement, KRISS

2000 - 2001: Nortel Networks R&D center, Senior Researcher

1996 - 2000: Department of Chemistry, University of Toronto, Postdoctoral Fellow
(Supervisor: John Polanyi, Nobel Prize Laureate)

1995 - 1996: Department of Chemistry, Seoul National University, Research Fellow
(Supervisor: Myung Soo Kim)

Research Area:

Nanomaterial Characterization and Safety, ToF-SIMS Analysis on Organic/Bio-Surfaces, Imaging Mass Spectrometry, Plasma Coating and Characterization, Nanoparticles Characterization.

Co-chair: **MARIA DUSINSKA**

NILU – Norwegian Institute for Air Research, Norway

Contact: mdu@nilu.no



Maria Dusinska, RNDr., CSc. (PhD.), DSc. has extensive experience in the field of environment and health, mutagenicity and carcinogenicity, nanotoxicology, nanosafety, hazard and risk assessment, risk governance, in vitro/in vivo and human genotoxicity studies, molecular epidemiology, biomonitoring and biomarkers, DNA damage and repair and individual susceptibility. She works at NILU where she is Director of Health Effects Laboratory, GLP certified. She is a member of the Scientific Committee on Consumer Safety (SCCS), a member of Genotoxicity working group in European Food Safety Authority (EFSA), and a member of the Standards Norway ISO Committee ISO/TC229 on nanotechnology. She is editor of international journals: Mutagenesis (until 2015), Basic & Clinical Pharmacology & Toxicology, Environmental Research (until 2017), Food and Chemical Toxicology, Mutation Research, and Nanomaterials. She was guest editor for special issue (SI) in journals: Nanotoxicology (2015), Environmental Molecular Mutagenesis (2015), Mutagenesis (2017), Mutation Research (2019), and Nanomaterials (2020).

She published more than 350 publications in peer reviewed journals and book chapters and has over 7700 SCI citations (WoS excl. Self-citations, h-score of 44 (WoS). She coordinates H2020 NMBP13 RiskGone (2019-2023, <https://riskgone.wp.nilu.no>) focussed on Science-Based Risk Governance of Nanotechnology.

She coordinated FP7 project NanoTEST (2008-2012; <http://www.nanotest-fp7.eu/>) focused on development of testing strategies for nanomaterials. In 2000-2006 she Coordinated FP5 EC project Centre of Excellence in Environmental Health HEAR NAS.

She was partner in numerous of FP5 and FP6 projects, and was involved in many FP7, H2020 and EEA international collaborations on nanomaterial safety; leader of Impact assessment workpackage (WP) of large FP7 project NanoImpactNet; coordinator of FP7 Marie Curie project NanOmega; WP leader in Marie Curie Initial Training Network NanoTOES (<http://www.nanotoes.eu/>; both projects focused on toxicity of nanosilver); and partner in large FP7 projects on infrastructure of nanomaterial safety – QNANO (task leader for genotoxicity; <http://www.qualitynano.eu/>) and NanoREG (task leader for intelligent testing strategy and high throughput methods; <http://www.nanoreg.eu/>) and task leader for high throughput methods in the Horizon 2020 project NANoREG2. Additionally, she was and is involved in several other H2020 projects (SaByDoMa-WP leader, NanoSolveIT-WP leader, HISENTS – task leader, NANoREG2-task leader). She coordinated national project NorNanoREG in NanoSafety and is involved in NFR project INTER and NanoBioReal (focussed on new 3D models), and COST Action Human Comet and leader of working group on cells. She participates in the Euronanomed projects GEMNS, INNOCENT,

CELLUX, and the H2020 TWINNIG projects VISION and TWINALT. She was involved in several EEA bilateral grants, most recently in Norwegian Polish project TEPCAN.

Since 1996 she was involved in various genotoxicity networks, particularly in relation to the comet assay, and since 2005 she is actively involved in an international network on nanomaterial safety (Nanosafety Cluster). Member of the ComNet steering committee, member of Norwegian SafeNano platform.

Announcement 5th EU–Asia Dialogue

RUSLINDA A. RAHIM

Ministry of Science, Technology and Innovation, Malaysia

Contact: ruslinda@mosti.gov.my



Ruslinda binti A. Rahim received her Doctor of Philosophy (Ph.D) majoring in Nanoscience and Nanoengineering from Waseda University, Japan in September 2012. She completed her M. Eng and B. Eng degrees in Electrical and Electronic Engineering at Muroran Institute of Technology, Japan in 2007 and 2002, respectively. Currently, she is the Director of National Nanotechnology Centre under Ministry of Science, Technology and Innovation Malaysia (MOSTI). She is a Research Fellow at the Institute of Nano Electronic Engineering, Universiti Malaysia Perlis (INEE, UniMAP) and Associate Research Fellow at the Institute of Microengineering and Nanoelectronics, National University of Malaysia (IMEN, UKM). Her research interests include Nanoelectronics, Nanostructure device, Biosensors, Bioelectronics, DNA and protein detection, Aptamer and surface chemistry on carbon-based materials. She is also active in several societies such as a Board of Engineers Malaysia, Professional Technologist Malaysia (MBOT) (Nanotechnology), Committee member of Malaysia Nanotechnology Association, Board Member of Malaysia Sensor Society and Editor of the International Journal of Nanoelectronics and Materials.

Announcement of upcoming events on 8th & 9th of October



17th ASIAN NANO FORUM Summit

8th of October 2020, 8:30 – 12:00

08:30 - 09:00	Registration for the 17th ANF Summit
09:00 - 09:10	Opening Remarks
09:10 - 10:10	Annual General Meeting (AGM, by Secretariat)
10:10 - 10:20	Tea Break
10:20 - 11:40	Working Group Presentations (20 minutes each WG)
11:40 - 11:50	[Motion] TERI, India – Membership Application
11:50 - 12:00	Closing Remarks

Link to the webmeeting via zoom: <https://fh-campuswien.zoom.us/j/3278205792?pwd=L1dDRkRvdUhCdFVUSktKa1hleERCUT09>

Meeting-ID: 327 820 5792

Password: 9112

Workshop on Advanced Materials and Emerging Issues

8th of October 2020, 13:30 – 15:30

Overview

Advanced materials are materials which feature a series of exceptional properties (mechanical, electric, optic, magnetic, etc) or functionalities (self-repairing, shape change, decontamination, transformation of energy, etc) that differentiate them from the rest of the universe of materials. These new properties can be achieved by the precise control of its composition and internal structure. An important subcategory of AM are nanotechnologies which also exemplify one additional principle characteristic for this group – the combination of engineering and biological approaches at low levels of size.

Therefore, advanced materials can be used in a universal way and offer new solutions to a great variety of well-known problems in creating new products, changing consumption patterns and interfering with health and environmental challenges. On the other hand, as to their innovative character, they also might pose unintended consequences and uncertainties which have to be identified and evaluated as early as possible to ensure a safe and sustainable development of advanced materials.

The safe development of advanced materials encompasses also the adaptation of regulatory fields such work place safety, product liability, consumer protection and environmental aspects, including chemical regulation and the systematic development of standards. Especially the interdependencies between possible benefits and their fate in the human body and in environmental media during their product life will be of utmost interest for risk research and safety management. The long-term experiences in Europe in regulating the safe and sustainable development of nanotechnologies might be useful for managing the upcoming challenges which might concern an appropriate development strategy of advanced materials in the next few years.

Agenda

13:30 – 13.40	Welcome Mr. Alexander Pogany, Austrian Ministry of Climate Action
13.40 – 14.05	Introduction: Advanced Materials and Emerging Issues Dr. Andre Gazso, Austrian Academy of Sciences
14.05 – 14.20	Data-driven Materials Science and Technology - Materials Informatics Dr. Yasuo Koide, National Institute for Materials Science (NIMS), Japan
14.20 – 14.35	„Challenges for complex materials with diverse crystal stable phases“ Dr. Jun'ichi Sone, Japan Science and Technology Agency

14.35 – 14.50	Biomimetic and Bioinspired Advanced Materials Prof. Dr. Ille Gebeshuber, Technical University of Vienna
14.50 – 15.00	Questions and Answers
15.00 - 15.30 (15.45 if needed)	Plenary Debate on Advanced Materials - Advanced Materials: Applications and Trends - Further Actions by the ANF

Link to the webmeeting via zoom: <https://fh-campuswien.zoom.us/j/3278205792?pwd=L1dDRkRvdUhCdFVUSktKa1hleERCUT09>

Meeting-ID: 327 820 5792

Password: 9112

Contact:

Austrian Academy of Sciences

Dr. André Gazsó (agazso@oeaw.ac.at) and

Yasuo Koide, PhD (koide.yasuo@nims.go.jp)

Workshop on Commercialization

9th of October 2020, 9:00 – 12:00

09:00 - 09:10	Opening Remarks
09:00 - 09:20	“Business challenges and policy issues in the innovation environment of nano- and converging technologies” (Sabine Jung-Waclik, Brimatech)
09:00 - 09:40	„Introducing a new high-tech nanotech product into the global market - what we have learned as a start-up company“ (Ernest Fantner, GeTEc)
09:40 - 10:00	“Functional and commercial attractive nanocoatings with atmospherical plasma spray process” (Andreas Hinterer, Inocon)
10:00 - 10:20	Company presentation (Benedict Foo, Enhance Track Pte Ltd)
10:20 - 10:40	Company presentation (Asnawi Kusaimi, Serdang Paste Pte Ltd)
10:40 - 11:00	Super capacitor composed of Graphen /Carbon nanotube 3D stacking (Dr. Tang Jie, Materials Innovation Tsukuba Corporation)
11:00 - 11:20	From researcher to be an Entrepreneur (Pinit Khueansuwong, IDEA2EXPERT CO., LTD)
11:20 - 11:50	Discussion
11:50 - 12:00	Closure

Link to the webmeeting via zoom: <https://ffg.zoom.us/j/94086008338?pwd=UDZuMnd-sUHRvYVF5VEcwVFZMWEFEZz09>

Meeting-ID: 940 8600 8338

Password: 621323

Contact:

Austrian Academy of Sciences

Dr. André Gazsó (agazso@oeaw.ac.at) and

Yasuo Koide, PhD (koide.yasuo@nims.go.jp)