

# September 17-19, 2014 OECD Expert Meeting on Categorization of Manufactured Nanomaterials - Biographies

**A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**

**A**

## **Jim Alwood (United States)**

Jim Alwood has been a program manager in the United States Environmental Protection Agency's Office of Pollution Prevention and Toxics' Chemical Control Division for 30 years. In addition to extensive experience with new chemical review under the Toxic Substances Control Act, he works on significant new use rules, biotechnology issues, and also coordinates nanotechnology issues under TSCA. He has a Bachelors of Science degree in Biology from Dickinson College and a Masters Degree in Environmental Science from George Washington University.

**B**

## **Eric Bleeker (The Netherlands)**

Dr Eric A.J. Bleeker has a scientific background in ecotoxicology, including both aquatic and terrestrial environments. He is working at the National Institute for Public Health and the Environment (RIVM) since 2008 as an environmental scientific advisor and risk evaluator. Currently, his work includes providing scientific advice to Dutch ministries related to risk assessment of nanomaterials, which is formalised in the Dutch "Risks of Nanotechnology Knowledge and Information Centre (KIR nano)". Issues include implementation of a definition in legislation, REACH Implementation Projects on Nanomaterials, adaptation of REACH Annexes for nanomaterials, etc. Further, he represents RIVM or the Netherlands in several international settings. Since 2010 this also includes active participation in the OECD Working Party on Manufactured Nanomaterials.

## **Scott Brown (BIAC)**

Scott C. Brown, PhD. is a Senior Research Scientist in DuPont's Corporate Center for Analytical Sciences' Particle and Surface Science competency where he serves as a corporate consultant and leads laboratories focused on the characterization of particles and interfaces. He serves as an expert in particle characterization for the DuPont Nanotechnology Advisory Team (DNAT) and is representing the Business and Industry Advisory Committee (BIAC) at this meeting.

Dr. Brown is an interdisciplinary scientist with expertise in colloids and surfaces. He has a Bachelor's degree in Chemical Engineering from the University of Florida and a Masters and Ph.D. from the University of Florida in Materials Science and Engineering with a focus on particle science and biomaterials. Scott is an active participant in the Cefic Titanium Dioxide Manufacturer's Association and serves as Vice Chair in the particle metrology task force (TEM TF). He is an active participant in the International Organization for Standardization's Technical Committee 229 on Nanotechnology (ISO TC229) and has played a key role in the Global Chemical Industry Nanotechnology Research Group (GCIN) expert committee on nanoparticle metrology methods. Dr. Brown has authored eight book chapters and over forty peer-reviewed publications. Many of these publications are focused on the physical chemical characterization of particulate materials in biological systems.

Prior to joining DuPont in 2011, Dr. Brown was a research faculty member in the Particle Engineering Research Center and Department of Materials Science & Engineering at the University of Florida. His research involved fundamental surface forces, designing particles for specific biological outcomes as well as characterizing particulate systems to understand

potential environmental and human health implications. While in academia, he was awarded several research grants in cancer nanotechnologies, environmental implications of nanomaterials, particulate-based theranostics, and fundamentals in particle-particle interactions from state and national government, industry and non-government organizations. Dr. Brown continues to actively serve as a reviewer for both scholarly journal publications and research proposals dealing with nano-objects.

**C**

**Shaun Clancy (BIAC)**

Shaun Clancy is Director of Product Regulatory Services for Evonik Corporation, the U.S. subsidiary of Evonik Industries of Germany. His focus at Evonik is on management of chemicals; communication of their hazards, exposures and risks; and how information on these topics are used to support product stewardship and compliance with pertinent laws.

Shaun is a chemist, did his undergraduate work at the University of Buffalo, State University of New York and performed his doctoral studies at Northwestern University. He chairs the American Chemistry Council's Health, Product & Science Policy Committee and represents Evonik on the ACC Nanotechnology Panel. He also represents Evonik on the Society of Chemical Manufacturers & Affiliates Chemical Risk Management Committee and the SOCMA Nanotechnology Small & Medium Enterprise Coalition. Dr. Clancy is active in the International Organization for Standardization's Technical Committee 229 (ISO TC229) on Nanotechnologies, is the convener of Task Group 2 on Consumer & Societal Dimensions of Nanotechnology and is the US lead to Working Group 3 on Health, Safety and Environmental Aspects of Nanotechnologies. He participates in the Nanotechnology Committee of the Business & Industry Advisory Committee to the OECD, is the industry lead to the Working Party on Manufactured Nanomaterials (WPMN) Steering Group on Cooperation on Risk Assessment and Regulatory Programs and is also active in the Steering Group on Testing & Assessment. Shaun also serves on the external advisory boards of the Nanomaterial Registry and the University of Michigan Risk Science Center.

**Vicki L. Colvin (United States)**

**D**

**Maria Doa (United States)**

Maria J. Doa is the Director of the United States Environmental Protection Agency's Chemical Control Division in the Office of Chemical Safety and Pollution Prevention. She leads activities for the assessment and management of a wide range of industrial, commercial and consumer chemicals before they are commercialized, including nanoscale materials and persistent, bioaccumulative toxic chemicals, under the Toxic Substances Control Act. She also leads risk management activities for chemicals that have already been commercialized such as chlorinated solvents and phthalates.

Previously, she was the director of EPA's National Program Chemicals Division. She led EPA's lead paint program and toxics programs on PCBs, mercury, and asbestos. For all these programs, her focus was on activities that result in risk reduction, including working to eliminate lead poisoning in children. She was the co-chair of the United Nations Environment Program and World Health Organization Global Alliance to Eliminate Lead in Paints and led the United Nations Environment Program Mercury Products Partnership. She also led the EPA's Toxics Release Inventory Program - a key community right-to-know program about toxic chemicals.

Maria holds a B.S. degree in Chemistry from the University of Michigan, and a Ph.D. degree in Organic Chemistry from the University of Pittsburgh.

**Maria Donner (BIAC)**

Dr. E. Maria Donner is a Senior Research Toxicologist at DuPont Haskell Global Centers for Health & Environmental Sciences in Newark, Delaware, USA. Her role is to lead the Genetic Toxicology capacity and to provide regulatory and scientific expertise. She received her Ph.D. in Genetics, with a second major in Pharmacology, from the University of Helsinki, Finland, with

research conducted as a Visiting Fellow at the National Institute of Environmental Health Sciences (NIEHS), RTP, NC. After completing her Postdoctoral Fellowship at the Chemical Industry Institute of Toxicology (CIIT, now the Hamner Institutes) she was appointed as Director of Genetic Toxicology at Integrated Laboratory Systems, Durham, NC, until she joined DuPont in 1999. Dr. Donner is a subject matter expert in nano(geno)toxicology, with insights in research and testing aspects. She has organized and participated in several nanotoxicology workshops and symposia over the years. Dr. Donner is also representing the Business and Industry Advisory Committee (BIAC) on several OECD Expert Groups, including the WPMN, for review and development of the OECD test guidelines on genotoxicity.

## F

### **Brad Fisher (Canada)**

Brad Fisher is a graduate of Chemical Engineering from McGill University (Montreal, Canada) in 2001. Brad has over 13 years of experience working at Environment Canada where he has developed considerable expertise in all aspects of regulatory decision making related to Chemicals under the Canadian Environmental Protection Act 1999 (CEPA 1999). For the past 2 years Brad has been managing of the nanotechnology file at Environment Canada where he is responsible for managing both domestic and international aspects of Nanotechnology.

### **Steffi Friedrichs (BIAC)**

Dr Steffi Friedrichs is the Director-General of the Nanotechnology Industries Association (NIA), globally the only industries-focused trade association in nanotechnology with registered companies in the UK (NIA Ltd) and in Belgium (international level, NIA AISBL). Based on business-strategies and policies developed by Dr Friedrichs, the NIA provides a sector-independent, responsible voice for the industrial nanotechnologies supply chains.

In this capacity, she has represented the nanotechnology industries through provision of expert advice and evidence to numerous national and international expert committees and regulatory organizations on topics ranging from regulatory-/safety-issues to environmental and societal benefits of nanotechnologies, educational-/skills-requirements for nanotechnologies to commercialization-/business-issues related to the advancement of nanotechnologies to general policy considerations for emerging technologies. She initiated several in-depth programmes in support of the ongoing advancement of nanotechnologies and participated in many stakeholder debates and citizen's engagement panels.

Dr Friedrichs joined the NIA from The Technology Partnership, where, as a Senior Nanotechnology Consultant, she was responsible for the development of nanotechnology innovations and contributed to the tendering and due diligence processes for the MNT Network (Department of Trade and Industry, UK Government). She was also a member of the Board of Directors of the Chicago Micro- & Nanotechnology Community (CMNC).

Dr Friedrichs started her scientific career with an undergraduate degree in 'Diplom-Chemie' at the Technical University of Braunschweig (Germany), before taking a DPhil at the University of Oxford (UK), specialising in single-walled carbon nanotubes (both synthesis and toxicology).

She subsequently held a Fellowship at Oxford University and a Lectureship in Nanotechnology at Cambridge University, where she developed and co-ordinated a Master's Programme in Micro- & Nanotechnology Enterprise. In 2006, Dr Friedrichs chaired the UK Committee for the Recognition of Nanoscience and -technology Educational Programmes (Institute of Nanotechnology), and is member of the Board of Editors for the journal NanoEducation.

Dr Friedrichs a member of several expert panels/boards regarding regulatory-, safety- and innovation-aspects of nanotechnologies; she is Vice-Chair of the BIAC (Business and Industry Advisory Committee to the OECD) Nanotechnology Committee and serves as one of the main representatives to the OECD Working Party on Manufactured Nanomaterials and the OECD Working Party on Nanotechnology.

## G

### **Charles Geraci (United States)**

Dr. Charles Geraci is a Senior Scientist and Coordinator of the Nanotechnology Research Center at NIOSH. He provides overall strategic guidance to the program at NIOSH and is recognized internationally for his leadership in the field. Dr. Geraci has 38 years of industrial Hygiene practice experience that has included the federal government, consulting, and private industry. He earned a S.S. in chemistry from the University of Cincinnati; a Ph.D. in chemistry from the Michigan State University; is certified by the American Board of Industrial Hygiene in both the Comprehensive Practice and the Chemical Aspects of Industrial Hygiene; and is a Fellow of the American Industrial Hygiene Association. He has authored or co-authored many of the papers that have helped set the direction for proactive thinking in nanotechnology safety and health and manages the development and dissemination of workplace risk management guidelines, including the NIOSH document "Approaches to Safe Nanotechnology". Dr. Geraci serves as a subject matter expert on various national and international panels and advisory boards, including representing NIOSH on the US NNI/ISO Technical Committee 229 on Nanotechnology; and the OECD Working Party on Manufactured Nanomaterials.

### **Greg Goss (Canada)**

Dr. Goss is the Scientific Director of the University of Alberta Water Initiative and has a broad program aimed at water research, environmental health and regulation. He is Director of the Office of Environmental Nanosafety and works jointly with industry and the National Institute of Nanotechnology on research projects to develop safer technologies. He is the scientific co-leader on a large multi-institutional research grant focusing on the safer application of nanotechnologies in industry. He is a Professor in Biological Sciences and is cross-appointed to the School of Public Health and a Fellow of the National Institute of Nanotechnology.

He is Past-President of the Canadian Society of Zoologists, serves on the Council for numerous national and international societies and advisory boards, is an Associate Editor of the Canadian Journal of Zoology and on the editorial boards for Nanotoxicology and Environmental Science: Nano. He is also President of Aquosity Environmental Consulting.

He has numerous grants from both government and industry partners and his work focuses on effects of micro pollutants in industrial and municipal wastewater on fishes, as well as a basic research project on the effects of environmental alterations on fishes. His research investigates the effects of municipal wastewater, hydraulic fracturing fluids, pesticide and herbicides, oil sands process affected water and other wastewaters and the *effects* of nanomaterials on fish and invertebrates. He is working directly with Environment Canada and the OECD on devising guidelines for testing for nanomaterials. He also has programs testing the efficacy of novel engineering approaches in mitigating effects of these micro pollutants and in the safety of nanomaterials as they are introduced into commerce.

### **Monique Groenewold (The Netherlands)**

Drs. Monique Groenewold is coordinator of the "Risks of Nanotechnology Knowledge and Information Centre (KIR nano)" at the National Institute for Public Health and the Environment (RIVM) since 2012. She studied Biomedical Sciences and worked for several years as a practicing occupational hygienist and held various positions in the international research field of chemicals and safety including senior project manager, product manager and team manager.

The aim of KIR nano is to provide independent and reliable information for policy makers and the general public on human health and environmental risks of nanotechnology. KIR nano brings knowledge and research fields together and translates this into policy. KIR nano is represented in all national and international forums on nanotechnology such as ISO (International Standards Organization) and OECD working groups (Organisation for Economic Co-operation and Development) on risks of nanotechnology (WPMN). Monique Groenewold is head of the Dutch Delegation of the OECD WPMN since 2014.

## H

### **Tala Henry (United States)**

Dr. Tala Henry has been with the United States Environmental Protection Agency (EPA) for 20+ years. She is currently Director of the Risk Assessment Division in the Office of Pollution Prevention and Toxics where she leads several Agency programs that assess the health and environmental hazards, exposures and risks of new and existing chemicals, microorganisms and applications of biotechnology. Much of Dr. Henry's professional experience with EPA has been as a Toxicologist. She has worked in a variety of programs at the EPA including conducting research on the toxicity of chemicals, conducting risk assessments for hazardous waste sites, and developing Water Quality Criteria. Dr. Henry has also served as the United States representative and technical expert for a number of international chemical assessment and management activities. Dr. Tala Henry received a B.A. in Biology from the College of St. Scholastica, a Ph.D. in Pharmacology from the University of Minnesota and completed a Post-Doctoral Fellowship at the University of Wisconsin-Madison.

### **Myriam Hill (Canada)**

Myriam Hill is the section head of the Nanotechnology Section of the New Substances Assessment & Control Bureau of Health Canada. M. Hill has over 20 years' experience in the human health risk assessment and regulation of chemical substances and has been the manager of the nanotechnology section since its creation in 2009. M. Hill has been very active in various nanotechnology activities including the OECD Working Party on Manufactured Nanomaterials (WPMN), the US Canada Regulatory Cooperation Council (RCC Nano) and the LSI NanoRelease Consumer Products project. M. Hill has convened two international workshops on human and environmental risk assessment of nanomaterials, WHERAN 2010 and WHERAN 2013.

### **Jenny Holmqvist (European Union)**

Jenny Holmqvist holds a degree in Chemical Engineering from Chalmers Technical University, Sweden, with a post-degree diploma in toxicology. She joined European Chemicals Agency (ECHA) in January 2013 after working for the European Chemical Industry Council (Cefic) for five years. Throughout her professional career she has developed a unique skill set from working for industry as industrial hygienist, for the Swedish Government representing them in several European and international committees, the European Commission, and representing a number of industry sectors from a trade association perspective at both European and international level. In the context of nanomaterials, she has followed the development of the regulatory aspect of nanomaterials in Europe longer than most. Since the start of the CARACAL Subgroup on Nanomaterials (CASG Nano) in 2008, she first represented Cefic and recently ECHA. In addition, she co-ordinated Cefic's work in the three REACH Implementation Projects (RIPs) related to REACH applicability to nanomaterials and now back in a regulators role working on the practical aspects of the implementation of REACH at ECHA. Her thorough understanding, of not only the policy aspect, but also the technical risk assessment perspective made her a successful candidate for the position as the Chair the Steering Group on Testing and Assessment at OECD WPMN.

## I

### **Takuya Igarashi (Japan)**

Takuya GARASHI joined the Research Institute of Science for Safety and Sustainability (RISS) of the National Institute of Advanced Industrial Science and Technology (AIST) of Japan in May 2010 to act as liaison person between AIST's nanosafety R&D projects and OECD/WPMN and SO/TC229 activities. He leads WPMN/SGAP's Pilot Project No. 3 "Survey on approaches to develop or use concepts of grouping, equivalence and read-across based on physical-chemical properties of nanomaterials", and is a member of the WNT & WPMN joint expert group on inhalation toxicity for safety testing of nanomaterials. He participates, as an expert, in SO/TC229/WG3/PG15 "General framework for the development of occupational exposure limits for nano-objects", and is a member of the domestic drafting team for SO/TC229 /WG3/PG20 "Characterization of nanosuspensions to verify nano-object induced toxicity assessed in vitro".

In 1981, he started working for the Japanese government's Ministry of International Trade and Industry as a technical officer. Since 1993, he has gained more than ten years of experience in negotiation and implementation of the Chemical Weapons Convention, including time spent at the OPCW Technical Secretariat in The Hague; four years of experience in negotiation and implementation of the Convention on Biological Diversity, including implementation of related cooperative R&D projects with Thailand, Indonesia and Malaysia; and some years of experience in negotiation and implementation of the POPs and PIC Conventions.

Takuya used to enjoy orienteering and long-distance running, but now spends his free time going to classical concerts.

## K

### **Jun Kanno (Japan)**

From 1986-1997, Dr. Kanno served on the faculty at TMD University, and was a Visiting Scientist, Cancer Genetics and Molecular Pathology, NIEHS/NIH, NC, U.S.A. from 1991-1993. In 1997, he was engaged as a section chief at National Institute of Health Sciences (NIHS) until he accepted his present position in 2002 as Head of NIHS Cellular & Molecular Toxicology Division to specialize in General Pathology, Endocrine Pathology (thyroid), Toxicology, Experimental Pathology, and Experimental Toxicology, Chemical Biology, and full range of relevant chemical issues.

Dr. Kanno's research includes molecular toxicology focused on studies of endocrine disrupting chemicals (receptor mediated toxicity, or signal toxicity), carcinogenesis and toxicogenomics. He has also been involved in drafting "Endocrine Disrupting Chemicals (EDCs) Screening and Testing Scheme of Ministry of Health, Labour and Welfare (MHLW)," and the organization of MHLW research groups for EDCs, OECD/EDTA Uterotrophic Assay project (TG440) as the lead laboratory (1998-), designing rat Toxicogenomics Joint Project of NIHS & the alliance of Japanese pharmaceuticals (2002-). He developed the NIHS Chemical Safety Toxicogenomics (Percellome) Project (2003) using mice and has been expanding this Percellome Project to inhalation toxicogenomics at low exposure levels comparable to that of so-called human "sick building syndrome", fetus (developmental) toxicogenomics for embryo and embryonic stem cell/embryoid body at various developmental stages and risk assessment of exposure to combined environmental chemicals. He conducted basic researches in conjunction with risk assessment activity and application of toxicogenomics on safety of food additives/contaminants as well as food ingredients, in so-called "functional foods" and "supplements". His research area extends to Nanomaterials safety and initiated its Safety Research Activity for MHLW (2004-).

Dr. Kanno has been a council member of the Japanese Society of Toxicology (JSOT) since 2002 and has served on its Board of Directors since 2004. He hosted the 35th Annual Meeting of the Japanese Society of Toxicology held in Tokyo in 2008, which explored themes of "Children's Toxicology" and "New Substance Toxicology such as Nanomaterials." He also served as the President of JSOT (2012-13).

In addition, Dr. Kanno has been an expert member of WHO/IPCS Toxicogenomics, WHO/IPCS Harmonization Project on Cancer (2003-), OECD/EDTA VMG-mammalian (1998-), VMG-Non Animal (2002-), and engaged as a member of OECD/EDTA Advisory Group (2009-). After serving as Vice President (2009, 2010-2013), he is assigned to the President-Elect (2013-2016) of International Union of Toxicology (IUTOX).

### **Thomas Kuhlbusch (Germany)**

Thomas Kuhlbusch studied Chemistry at the University Munster. The focus of his PhD thesis at the Max-Planck-Institute for Biogeochemistry in Mainz, Germany as well as his first post-doc position at the US-EPA was related to atmospheric chemistry and climate change. His research topic changed and focussed on aerosols with his move to the University of Duisburg-Essen in 1997 where he started his research group on ambient particles. Thomas Kuhlbusch changed with his team to UTA in 2001 where he became unit head of the research unit on „Air Quality & Sustainable Nanotechnology“

The current research areas of Dr. Kuhlbusch are the development of measurement technologies, particle exposure of humans and the environment, emission and release processes of (nano)particles, workplace safety, life cycle analysis of nanomaterials, source apportionment of particles at workplaces and in the environment, assessment of ambient air quality and abatement strategies. He has published numerous papers, was involved in and led many national and international projects, many of them related to the safe use of nanomaterials. He is also member of several national and international advisory groups and committees on particle exposure, their impacts on humans and the environment as well as standardisation activities.

## L

### **Henrik Laursen (European Union)**

Currently in the European Commission, DG Environment, Chemicals Unit. Team Leader for Nanomaterials and POPs and Head of Delegation for the EU to the OECD WPMN.

Until 2007 in International Relations, Governance and Development, DG Environment, responsible for bilateral co-operation with China and the US regarding chemicals, climate change, air quality and water management.

For five years posted to the Royal Danish Ministry for Foreign Affairs, Denmark's Permanent Representation to the European Union, Brussels as attache for environment and chemicals legislation. Chairman for the Environment and Chemicals Working Parties in the Council during the Danish Presidency in 2002.

From 1993 to 1999 employed in the Danish Ministry for the Environment responsible for EU and international co-operation particularly regarding the UN Framework Convention on climate change (including the Kyoto Protocol negotiations) and in the Minister's Cabinet in charge of the law making process for files covering waste management, water and chemicals.

Master Degree (Political Science) 1993, University of Copenhagen, dissertation focused on environment policy and economics.

## M

### **Jeff Morris (United States)**

Jeffery Morris is Deputy Director of the United States Environmental Protection Agency's Office of Pollution Prevention and Toxics, which regulates industrial chemicals under the Toxic Substances Control Act as well as administers the Pollution Prevention Act. Jeff has worked as a federal public servant for 25 years. In his 22-year career at EPA, Jeff has held a number of positions across the agency, including serving as acting director of the Office of Science Policy and as National Program Director for Nanotechnology Research.

### **Ken Moss (United States)**

Kenneth Moss has over 29 years of experience in chemical risk management and regulatory policy under the United States Toxic Substances Control Act (TSCA) and has worked most of that time in EPA's new chemicals program. He currently leads a team that specializes in the development of Significant New Use Rules (SNURs), and the review of new nanomaterials and genetically modified microorganisms submitted to EPA for review as premanufacture notices (PMNs) under TSCA. Ken holds a Masters degree in cell biology from the University of Virginia, and a Master of Public Health degree from the University of California, Berkeley.

### **Vladimir Murashov (United States)**

Dr. Vladimir Murashov is a Senior Scientist in the Office of the Director of the National Institute for Occupational Safety and Health in the U.S. Department of Health and Human Services in Washington, D.C. He received his Ph.D. in Chemistry from Dalhousie University in Halifax, Canada in 1998. He completed his postdoctoral research in University of British Columbia in Vancouver, Canada in 2001, when he joined NIOSH as a scientist conducting computational chemistry studies. He is a globally recognized expert in nanotechnology safety and health. He serves as a subject matter expert on various panels and advisory boards and is frequently invited to make presentations at major international conferences on nanotechnology. Dr.

Murashov has been a member of U.S. government inter-agency working groups on nanotechnology representing NIOSH since 2004. He leads nanotechnology safety groups in International Organization for Standardization, Organization for Economic Cooperation and Development, World Health Organization and United Nations Institute for Training and Research. He has written numerous articles in the area of materials chemistry and nanomaterial safety and health.

## O

### **Agnes Oomen (The Netherlands)**

Agnes Oomen (PhD) is a senior toxicokineticist and project leader working in the field of assessing and understanding health risks related to nanomaterials, including the risks of nanomaterials in food and development of risk assessment strategies as in a large European project. The setting of these projects is often at the interface between science and policy. She has been working at the National Institute for Public Health and the Environment in the Netherlands since 2000. Her work includes providing scientific advice to Dutch Ministries and representing RIVM or the Netherlands in several European or global settings. She has evaluated the preclinical pharmacokinetics and in vitro studies for the registration of new drugs (New Chemical Entities) as a registered expert at the EMEA (European Agency for the Evaluation of Medicinal Products) for over a decade.

## P

### **Willie Peijnenburg (The Netherlands)**

Prof. Dr. Willie Peijnenburg is senior researcher at the National Institute of Public Health and the Environment (RIVM), Bilthoven (The Netherlands) and extraordinary professor at the Institute of Environmental Sciences (CML) of the Faculty of Science of Leiden University, Leiden (The Netherlands), chair position "Environmental Toxicology and Biodiversity". He currently is involved in research aimed at underpinning the risk assessment of nanomaterials, with a focus on fate and effect assessment of nanomaterials in the aquatic environment. Research topics include dosimetry, transformation/dissolution, impact of water composition on nanomaterial fate.

### **Elijah Petersen (United States)**

Dr. Petersen graduated from Case Western Reserve University in 2003 with BS and MS degrees in Civil Engineering and a BA in Psychology. He received a PhD at the University of Michigan studying the ecological uptake and elimination behaviors of carbon nanotubes. He then received a Fulbright scholarship to do postdoctoral research at the University of Joensuu in Finland. Elijah joined the National Institute of Standards and Technology (NIST) as a National Research Council postdoctoral research fellow from 2009-2010 and then became a staff research scientist in 2010. He currently works in the Biosystems and Biomaterials Division at NIST developing and validating standard methods for measuring the effects of manufactured nanomaterials on organisms. He has published over forty peer-reviewed publications and is on the editorial board for the journal Environmental Toxicology and Chemistry.

### **Suman Pokhrel (Germany)**

Dr. Suman Pokhrel received his PhD as a JNU Fellow in 2005 (Madras University, India), and was a postdoctoral fellow at the School of Chemistry and Materials Science, Heilongjiang University (China) until 2006, when he became a Georg Forster Fellow at Tübingen University (Germany). He is currently a research scientist (Habilitation Researcher) in the University of Bremen working on the synthesis of oxide nano-structured materials for various applications using flame spray pyrolysis (FSP). Dr. Pokhrel has published more than 50 peer reviewed articles on metal oxide NPs and holds 5 patents in designing materials for different applications (chemical sensors, safe-by-design).

### **Maila Puolamaa (European Union)**

Maila Puolamaa has a university background in the occupational and environmental protection and she joined the European Commission as a permanent official in 2005.

Her first assignment, was at Directorate General Health and Consumer Protection, working for the



Scientific Committees for Newly Identified Health Risks (SCENIHR) and Consumer Protection (SCCP) with the main specialisation area nanomaterials' risk assessment.

In 2008, she moved to the REACH Unit of DG Enterprise and Industry, where her main responsibilities relate to nanomaterials and the REACH contribution to the development, commercialisation and uptake of products of emerging technologies.

## R

### **Kirsten Rasmussen (JRC European Union)**

Kirsten Rasmussen has a Ms. Sc. in Chemical Engineering from the Technical University of Denmark, and has worked at the European Commission's Joint Research Centre since 1988 on research and the research interface to legislation, including policy support for the EU legislation.

She has worked with industrial and chemical risk with the Major Accident Hazards Directive and with the Notification Scheme for New Industrial Chemicals.

She also worked extensively on the review programme for existing active substances for the Biocidal Products Directive, on the guidance documents, the evaluation procedures and databases.

At the European Chemicals Agency in Helsinki, Finland, she assisted in the start-up phase and specifically she was involved in setting up the Committee for Risk Assessment.

Currently, she is involved in support to regulatory methods for Nanomaterials.

### **Kim R. Rogers, Ph.D. (United States)**

Kim Rogers is the Acting Chief for the Exposure Measurements & Analysis Branch at the U.S. EPA, National Exposure Research Laboratory in RTP North Carolina. Dr. Rogers training is in the area of biochemistry and he has published extensively in the areas of biosensors and bioanalytical chemistry. Current research areas of interest include human exposure and environmental implications of nanomaterials.

## S

### **Phil Sayre (United States)**

Dr. Phil Sayre is a Senior Scientist in the Risk Assessment Division of EPA's Office of Pollution Prevention and Toxics in Washington, D.C. This division assesses the health and environmental effects of industrial chemicals (including nanomaterials and microbial biotechnology products) proposed for commercialization under the Toxic Substances Control Act (TSCA). Dr. Sayre assesses the risks of industrial nanomaterials, develops guidance on the health and environmental effects of nanomaterials, and identifies nanomaterial-related research needs for EPA. He is involved in nanomaterial risk assessment research through the National Nanotechnology Initiative (please see <http://www.nano.gov/nehi>) and in nanomaterial international test guideline and guidance development through the Organization for Economic Cooperation and Development (please see <http://www.oecd.org/env/ehs/nanosafety/>). Dr. Sayre earned a B.S. and M.S. in Biology at Emory University, and a Ph.D. in Biology at Georgetown University. His most recent nanomaterial-related publications can be found in *Regulatory Toxicology and Pharmacology* (2014; 68:305-311) and in *Carbon* (2014; 68:33-57).

### **Juergen Schnekenburger (Germany)**

Dr. Jurgen Schnekenburger is the head of the Biomedical Technology Center, Medical Faculty Munster ([www.biomed-tech.de](http://www.biomed-tech.de)). Born in 1963, he graduated in biochemistry at the Universities of Tübingen and Berlin. In 1997 he completed his PhD at the Max-Planck-Institute for Biochemistry in Martinsried. Since 2007 he holds a Master of Science in General Management of the Hager Institute for Management Studies, Fernuniversität Hagen.

The research interests focus on the application of novel nanotechnologies and biophotonic technologies as nanostructured surfaces, Atomic Force Microscopy, Digital Holography, Optical

Stretcher and TOF SIMS in medical diagnostics and cancer cell analysis. The second research interest is the development of technologies for nanomaterials toxicology assessment. The work is supported by the membership as a core group in the new Nanobioanalytics Center Muenster (NBZ) a joint initiative of Wirtschaftsförderung Münster, analytical SME and the Medical faculty.

The present research is funded by grants of BMBF, state NRW and EU programmes. Recent projects include a participation in the German Federal Ministry of Education and Research (BMBF) projects NanoCare and NanoGEM, where industry and scientific institutions join forces to research the *effects* of industrially-produced nanoparticles on human health and the environment, the BMBF project Agescreen for novel optical methods for the assessment of cell aging, the EU FP7 Project Marina ("Managing Risks of Nanoparticles") and the EU FP7 Project Minerva ("Mid- to NEaR infrared spectroscopy for improved medical diagnostics"). New projects deal with the categorization of nanoparticle toxicity (BMBF project nanoGRAVUR) and the development of new drugs for the supplementation of pancreatic enzymes (BMBF Project CILIP).

Jurgen is member of the expert panel of the European Technology Platform NanoMedicine, member of the board of the BMBF project NanoCare and NanoGEM. Member of the scientific board of the NanoBioEurope 2006, 2009 in Grenoble and 2010 and 2014 in Muenster. Since April 2006 reviewer for the Spanish Ministry of Health programme Ciber. 2007 reviewer for the Italian Piedmont Region converging technologies call. 2009 reviewer for the German BMBF WING programme and for the EC FP7 Health programme. 2010 and 2011 project reviewer for EC FP7 NMP projects, 2011 reviewer for the Swiss national Science Foundation, 2011, 2013 and 2014 reviewer for the EuroNanoMed ERA net.

#### **Jo Anne Shatkin (Society for Risk Analysis – SRA, United States)**

Jo Anne Shatkin, Ph.D. is President of Vireo Advisors, LLC, and is focused on sustainability strategies for new and nano-technology development and innovation. She has extensive experience in working with entrepreneurs to guide responsible product development and commercialization. She develops state of the art analyses on behalf of public and private organizations to inform safe and sustainable product new development. Dr. Shatkin is an environmental health scientist and recognized expert in environmental science and policy, human health risk assessment, emerging contaminants policy and environmental aspects of nanotechnology. As CEO of CLF Ventures, she worked with early stage and large organizations on new technology introduction strategies, including business planning, environmental impact assessment, and networking for financing.

Since 2005, Jo Anne has provided leadership on the responsible development of nanotechnology, and on approaches for decision making under uncertainty. Jo Anne founded the Emerging Nanoscale Materials Specialty Group of the international Society for Risk Analysis, where she serves as councilor. She served as an expert to several international committees on nanotechnology safety, including the joint WHO\_FAO Expert Panel on Nanotechnology in Food, the Canadian Council of Academies, and the US/Russia Bilateral Commission for Science and Technology Nanotechnology Environmental Health and Safety Panel. She serves as EHS Advisor to P3Nano, the US public private partnership to advance commercialization of nanocellulose. She pioneered the use of life cycle thinking in risk analysis for nanomaterials, collaborating with the U.S. Environmental Protection Agency to develop several case studies that informed EPA's risk analysis, research agenda and policies for nanomaterials. Jo Anne developed and uses NANO Life Cycle Risk Analysis to inform safe development strategies for nanomaterials, described in her book, Nanotechnology Health and Environmental Risks Second Edition (CRC Press 2012). She serves on the board of the Center for Environmental Policy at American University and the University of Maine Forest Bioproducts Research Institute and was a Switzer Environmental Fellow. She is leading efforts to develop methods and standards for environmental health and safety for TAPP! and participates in the US Technical Advisory Group to ANSI on EHS Standards Development for nanocellulose. Jo Anne received an Individually Designed Ph.D. in Environmental Health Science and Policy and her MA in Risk Management and Technology Assessment from Clark University, Worcester, Massachusetts and possesses a Bachelor of Science degree from Worcester Polytechnic University in Molecular Biology and Biotechnology.

### **Yasir Sultan (Canada)**

Dr. Yasir Sultan is the senior science advisor in the nanotechnology section of Environment Canada which has a mandate of conducting risk assessments of new nanomaterials. He is also the current chair of the Steering Group on risk assessment and regulatory programs of the OECD WPMN. In addition, Yasir is responsible for coordinating projects across Canada (and internationally) on Environment Canada priority research aimed at reducing gaps in the risk assessments of nanomaterials.

Yasir is a recognized leader in materials chemistry with technical training in the synthesis, characterization and manipulation of nanomaterials.

## **V**

### **Tom Van Teunenbroek (The Netherlands)**

TOM VAN TEUNENBROEK received his dual doctorandus in Molecular Biochemistry/Toxicology and Chemistry from Universiteit Utrecht in 1984. He then practised as a neurotoxicologist at the universities of Utrecht, Maastricht and Chicago, until in 1991 he became owner and co-founder of the environmental consultancy company Ameco. Then, from 2000-05, van Teunenbroek took the position of State Supervisory Environmental Inspector for the Ministry of VROM (Environment). He has since been working at the Ministry of Infrastructure and Environment in a number of high-level positions, including Policy Coordinator, Research coordinator, Representative for The Netherlands for OECD-WPNM and Coordinator of NANoREG.

#### **Environment and Health expert / NANoREG Coordinator**

Ministerie van Infrastructuur en Milieu

May 2001 - Present (13 years 5 months) The Hague Area, Netherlands

Currently full time coordinator of the EU flagship project NANoReg a collaboration of 13 countries, over 60 institutes, 380 man year of labor, 50 million euro project.

Former positions and experiences: Head of CoR EU-US on regulatory aspects of nano materials Advisor Environment & Health and nanosafety issues. Negotiator for the ministerial WHO declaration Environment and Health 2010 CO-Founder of the ERA-NET Environment and Health (17 EU member states) EU expert missions on EU-WFD implementation (Romania, Bulgaria, Cyprus and Croatia). EU expert missions on EU-IPPC (heavy industry) legislation and governmental oversight (Cyprus, Romania, Bulgaria, Slovenia, Slovakia, Tjech Republic).

## **W**

### **Angela Hight Walker (United States)**

Dr. Hight Walker, a Senior Scientist at the National Institute of Standards and Technology (NIST) of the U.S. Department of Commerce, is about to celebrate her 20th anniversary. She holds undergraduate degrees in Chemistry and Physics from Capital University and a Ph.D. degree in Chemical Physics from Wesleyan University. Her work at NIST began as a National Research Council Postdoctoral Fellow in the Physics Laboratory. During 2005, Dr. Hight Walker took a sabbatical as an invited researcher at Le laboratoire Aime Cotton of the CNRS in Orsay, France. She has authored over 80 publications and has won both the Silver and Bronze Department of Commerce Awards for her research.

Angela's research group aims to accelerate the applications of nanotechnology by studying the underlying chemistry and physics of nanomaterials, including noble and transition metallic nanoparticles, carbon nanotubes, and graphene. While the tool of choice is Raman spectroscopy, they use a suite of measurement methods to fully characterize the physicochemical properties of nanomaterials that enable key applications, such as medicine and energy, as well as predict their impact on the Environmental Health and Safety (EHS).

Dr. Hight Walker is actively involved in standard activities regarding nanotechnology. Under SO/TC 229, she chairs the US Technical Advisory Group for Working Group 2: Measurement and Characterization, as well as an international expert in all three other Working Groups.

Angela is also a team member of the group responsible for the NIST carbon nanotube reference material. An issue of great importance to Angela is encouraging the young and

especially girls to participate in science. Through on and offsite demonstrations and lectures, she actively engages in promoting the excitement of science. Mentoring undergraduate students and postdoctoral researchers is also a high priority.

### **David Warheit (BIAC)**

David B. Warheit graduated from the University of Michigan in Ann Arbor with a BA in Psychology. He received his Ph.D in Physiology from Wayne State University School of Medicine in Detroit. Subsequently, he was awarded an NIH Postdoctoral Fellowship, and 2 years later, a Parker Francis Pulmonary Fellowship, both of which he took to NIEHS to study mechanisms of asbestos-related lung disease. In 1984, he moved to DuPont Haskell Laboratory to develop a pulmonary toxicology research laboratory. His major scientific research interests include pulmonary toxicological mechanisms and corresponding hazards/risks related to inhaled particulates, fibers and nanomaterials. He is the author/co-author of > 120 publications and has been the recipient of the LSI Kenneth Morgareidge Award (1993 - Hannover, Germany) for contributions in Toxicology by a Young Investigator and the Robert A. Scala Award and Lectureship in Toxicology (2000). He has also attained Diplomate status of the Academy of Toxicological Sciences (2000) and the American Board of Toxicology (1988). He has served on NIH study section review committees (NIH SBIR, NIH Bioengineering) and has participated on working groups at ARC, ECETOC, OECD, LSI RSI and LSI-HESI and the National Academy of Sciences, as well as several journal editorial boards (including currently, Associate Editor - Inhalation Toxicology, as well as Toxicological Sciences), Particle and Fibre Toxicology, Toxicology Letters, Journal of Applied Toxicology, Critical Reviews in Toxicology and Nano Letters. Recently he was the chairman of the ECETOC (European Centre for Ecotoxicology and Toxicology of Chemicals) Task force on "Health and Environmental Safety of Nanomaterials", and formerly served on the National Academy of Sciences Committee to Develop a Research Strategy for Environmental, Health, and Safety Aspects of Engineered Nanomaterials; and presently on the NCTR Science Advisory Board; is a past President of the Nanotoxicology Specialty Section- (2010- 2011 - Society of Toxicology), and past member of the Society of Toxicology Program Committee (2009 - 2012).

### **Mark Wiesner (United States)**

Mark R. Wiesner holds the James L. Meriam Chair in Civil and Environmental Engineering at Duke University where he has appointments in the Pratt School of Engineering and the Nicholas School of Environment. He serves as Director of the National Science Foundation's Center for the Environmental Implications of NanoTechnology (CEINT). Dr. Wiesner's research established the area of environmental nanotechnology, examining the application of nanotechnologies for environmental quality control and the possible environmental implications of nanomaterials. He co-edited/authored the book "Environmental Nanotechnologies" and serves as Associate Editor of the journals Nanotoxicology and Environmental Engineering Science. Professor Wiesner also pioneered research in the area of applications of low-pressure membranes to water treatment. He co-edited and -authored the book "Water Treatment Membrane Process," served as the founding Chair of the American Water Works Association's Membrane Research Committee, and serves on the editorial board of the journal Desalination. Professor Wiesner is a Fellow of the American Society of Civil Engineers, the American Association for the Advancement of Science, and the International Water Association. Wiesner is a former President of the Association of Environmental Engineering and Science Professors (AEESP), a de Fermat Laureate (2004) and the 2011 recipient of the Clarke Water Prize for his work in improving water quality through advancements in membrane and nanotechnology research.