



A Joint Workshop March 10-11, 2011

Agenda

THURSDAY, MARCH 10, 2011
George Washington University
Elliott School of International Affairs
1957 E Street NW, 7th Floor, City View Room
Washington, DC 20052

8:00 – 9:00 **Registration and Continental Breakfast**

9:00 - 9:20 **Welcoming Remarks**

Daniel Clune, Principal Deputy Assistant Secretary, US Department of State
Herbert von Bose, Director, European Commission, DG Research & Innovation

9:20 - 9:30 **Purpose and Goals of the Workshop**

Sally Tinkle, Deputy Director, US National Nanotechnology Coordination Office

9:30 - 9:45 **Research to Regulation Transition Needs**

Elke Anklam, Director, European Commission, DG Joint Research Center, Institute for Health and Consumer Protection

PART 1: Understanding Perspectives and Programs

9:45 - 10:00 **Overview of the EC EHS Research Plans and Perspective**

Georgios Katalagarianakis, European Commission, DG Research & Innovation

- FP7 and Future FP8 Research Needs
- Most Recent Calls for Proposals and Those Anticipated

10:00 - 10:15 **Overview of US 2011 EHS Research Strategy and Perspective of the Government in Developing the Plan**

Sally Tinkle, Deputy Director, National Nanotechnology Coordination Office

- NNI 2011EHS Research Strategy
- Recent and Anticipated RFAs

10:15 - 10:30 **The OECD Working Party on Manufactured Nanomaterials: Latest Developments and Outlook for the Future**

Alexander Pogany, Federal Ministry for Transport, Innovation and Technology

10:30 - 10:45 **Break**

10:45 - 11:00 **Standardization for Nanosafety: ISO Plans and Perspective**

Daniel Bernard, Arkema

US EU

bridging nanoEHS research efforts

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11:00 - 11:30 **Examples of EU National Efforts**

NanoCare and NanoGEM—Large Integrated Projects within the German NanoEHS Initiative of the BMBF, Thomas Kuhlbusch, Institute of Energy and Environmental Technology
Example of National EU Efforts in the Field of EHS Research Connected to N&N, Alexander Pogany, Federal Ministry for Transport, Innovation and Technology

11:30 - 12:00 **Examples of US Efforts**

Nanotechnology Research at NIOSH, Vince Castranova, National Institute for Occupational Safety and Health
NIEHS/NTP Activities Evaluating the Safety of Nanoscale Materials, Nigel Walker, National Institute of Environmental Health Sciences

12:00 - 12:30 **Working Lunch**

(lunch boxes provided in the registration/reception area; workshop to resume in 30 min in the plenary room)

12:30 - 12:45 **Research in Support of Consumer Protection Legislation**

Hermann Stamm, Head of Nanobiosciences Unit, DG Joint Research Center, Institute for Health and Consumer Protection

12:45 - 1:15 **Industry Perspective**

Safety Research as an Integral Part of the Industrial Innovation Strategy, Peter Kruger, Bayer
Defining Research Needs & Crop Protection Products, Wendelyn Jones, CropLife

1:15 – 1:30 **NGO Perspective**

The Consumer Protection Imperative in Nanotech Research, Carolyn Cairns, US Consumers Union

PART 2: Data needs for regulatory decision making

1:30 – 2:00 **Overview of General Components of Regulatory Decision Making and Data Needs & Charge to the Breakout Groups**

Phil Sayre, US Environmental Protection Agency

2:00 – 2:15 **Break**

2:15 – 3:45 **Concurrent Breakout Sessions**

● **Session 1: Human Health Data Needs (Plenary Room, City View Room)**

Chair: Michael Riediker, Centre Hospitalier Universitaire Vaudois

Rapporteur: Wendelyn Jones, CropLife

EU: Regulatory Challenges and Data Needs: Work under the OECD Sponsorship Programme, EU Future Plans and International Cooperation Settings, Tom van Teunenbroek, Ministry of Infrastructure and the Environment



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US: Human and Safety Data Needs: The US Nano2 Report, Andre Nel, University of California, Los Angeles

● **Session 2: Environment Data Needs (Linder Conference Room, 6th floor)**

Chair: Pedro Alvarez, Rice University

Rapporteur: Flemming Cassee, National Institute for Public Health and the Environment

US: Nano-Sized Particles in the Environment: Fate, Transport and Potential Impacts to Ecosystem Health, Pedro Alvarez, Rice University

EU: Environmental Behavior and Effects of NPs on Organisms: Research and Data Needs for Regulatory Decision Making, Richard Handy, University of Plymouth

3:45 – 4:15 **Break**

4:15 – 5:15 **Regulatory Panel**

Moderator: Tom van Teunenbroek, OECD

EU: Tom van Teunenbroek (OECD), Ken Dawson (SCENIHR), Andrej Kobe (DG ENV), Hermann Stamm (DG JRC), Alexander Pogany (AT)

US: Phil Sayre (EPA), Bill Jordan (EPA), Carlos Pena (FDA), Treye Thomas (CPSC), Janet Carter (OSHA), Kerry Dearfield (USDA)

5:15 – 5:30 **Closing Remarks**

Georgios Katalagianakis, European Commission, DG Research & Innovation
Sally Tinkle, Deputy Director, US National Nanotechnology Coordination Office

5:30 – 6:30 **Reception at George Washington University**

(Hors d'Oeuvres and Cash Bar)



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FRIDAY, MARCH 11, 2011

**American Association for the Advancement of Science (AAAS)
1200 New York Avenue
Washington, DC 20005**

PART 3: Tackling the Challenges of Producing Reliable and Reproducible Data for Nanomaterials Assessment and Risk Management

8:00 – 8:30 **Registration and Continental Breakfast**

8:30 – 8:40 **Overview of Day 2: Focusing on Science and Identifying Areas of Cooperation and Leveraging**

Phil Sayre, US Environmental Protection Agency

8:40 – 9:10 **Tackling the Challenges: Producing Reliable and Reproducible Data for Nanomaterials Assessment and Risk Management**

Janeck Scott-Fordsmand, EU National Environmental Research Institute

9:10 – 9:20 **Charge to the Breakout Sessions**

Chris Cannizzaro, US Department of State

9:20 – 9:30 **Break**

9:30 – 10:45 **Concurrent Breakout Sessions**

● **Session 1: When do Unique Properties—with Risk Assessment Implications—Arise for Specific Nanomaterials? (Auditorium)**

Chair: Robert Hurt, Brown University

Chair: Nigel Walker, National Institute of Environmental Health Sciences

Rapporteur: Bengt Fadeel, Karolinska Institutet

Rapporteur: Harry Bushong, NanoTox, Inc

US: *A Risk Forecasting Framework for Nanomaterials*, Mark Wiesner, Duke University

EU: *Health: on Carbon-Based NPs and Health Implications*, Dominique Lison, Université Catholique de Louvain

● **Session 2: How do Surface Modifications and Chemical Transformations Affect Toxicity? (Revelle Conference Room)**

US Chair: Jay West, American Chemistry Council

EU Rapporteur: Adrienne Sips, RIVM

EU: *The Role of the Nanoparticle Surface in Interactions with Living Organisms*, Ken Dawson, University College Dublin

US: *Environment: Ecotox and Transformations*, Steve Klaine, Clemson University

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- Session 3: What Metrics Are Most Scientifically Accurate When Relating Dose to Response in Toxicity Assessments? How are Dose-Response Data Best Extended to Determining Occupational Exposure Limits and Environmental Concern Concentrations? (207 Conference Room)
Chair: Rafi Korenstein, Tel Aviv University
Rapporteur: David Warheit, DuPont
US: *In Vitro-In Vivo* Correlations of Dose-and Response-Metrics: Concepts for OEL Extrapolation, Günter Oberdörster, University of Rochester
EU: Environment: The Effects of Carbon Nanoparticles in Aquatic Species— the Importance of Testing Across Populations and Life Cycles, Teresa Fernandes, Napier University

- Session 4: How Relevant are Model Nanoparticles to Understanding Exposure in the Workplace? How Relevant are they to Recommending Industrial Hygiene Practices? (Haskins Conference Room)
Chair: Chuck Geraci, National Institute for Occupational Safety and Health
Rapporteur: Enrico Bergamaschi, University of Parma
US: Use of Model Nanoparticles to Understand Exposures in the Workplace, Laura Hodson, National Institute for Occupational Safety and Health
EU: Critical Parameters / Data Needs for Exposure Assessment in Occupational and Environmental Scenarios, Rob Aitken, Institute of Occupational Medicine

- Session 5: What are the Critical Parameters and Data Needs for Understanding the Behavior of Nanoparticles in Environmental Media? (Abelson Conference Room)
Chair: Andrew Nelson, University of Leeds
Rapporteur: Carolyn Cairns, Consumers Union
US: Fullerenes in the Environment: Behavior, Bioavailability and Effects, Pedro Alvarez, Rice University
EU: Use of Modeling to Predict Environmental Concentrations of Nanomaterials, Bernd Nowack, Swiss Federal Laboratories for Material Sciences and Technology

- ★ Session 6: What are the Critical Parameters and Data Needs Relevant to Understanding the Behavior of Nanoparticles in Consumer and General Population Exposures? (Cabot Lab, downstairs)
Chair: Frédéric Schuster, CEA, Commissariat à l'Énergie Atomique et aux Énergies Alternatives
Rapporteur: Treye Thomas, Consumer Product Safety Commission
EU: What are the Critical Parameters/ Data Needs to Understanding NP Exposure to Consumers and the General Population, Frans Christensen, European Commission
US: Consumer Exposure and Life Cycle Assessment of Nanomaterials: What's Still Needed? Todd Kuiken, Woodrow Wilson Center



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11:00– 12:30 **Key Conclusions from the Breakout Sessions**

12:30 – 2:00 **Lunch**
(On your own)

2:00 – 3:15 **Industrial Risk Management Considerations for Worker Protection**
Chair: Daniel Bloch, Commissariat à l'Energie Atomique et aux Energies Alternatives
Rapporteur: Shaun Clancy, Evonik Degussa Corporation
EU: **Worker Protection and Exposure Risk Management Strategies for Nanomaterial Production, Use and Disposal**, Markus Berges, Deutsche Gesetzliche Unfallversicherung
EU: **Strategies and Methods to Assess Occupational Exposures to Engineered Nanoparticles**, Kai Savolainen, Finnish Institute of Occupational Health
US: **Nano Manufacturing & OEHS; Integrating the Science**, Don Ewert, NanoTox, Inc; OSO BioPharmaceuticals Manufacturing
EU: **Exposure and Risk Banding Models as Tools for Risk Management**, Derk Brouwer, Nederlandse Organisatie Voor Toegepast Natuurwetenschappelijk Onderzoek
US: **Communication of Risk Management Strategies to Practitioners**, Bruce Stockmeier, Argonne National Laboratory

PART 4: Getting It Done Together

3:15 – 4:15 **Establishing Scientific Themes and Mechanisms for Ongoing Interaction**
Chair: Lang Tran, Institute of Occupational Medicine
Rapporteur: Laura Hodson, National Institute for Occupational Safety and Health
Enhancing Cooperation between EU and U.S. Scientists—BILAT-USA and Link2US Projects
US & EU, Sabine Herlitschka, Austrian Research Promotion Agency (FFG)
Developing Communities of Research (CORs), Sally Tinkle, Deputy Director, National Nanotechnology Coordination Office
Identifying Technical Platforms for Collaboration, Georgios Katalagianakis, European Commission, DG Research & Innovation

4:15 – 4:30 **Next Steps and Growing the Effort**
Travis Earles, Office of Science and Technology Policy, Executive Office of the President

4:30 **Adjourn**

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