

ICEIN 2009, Blackburn Center, Howard University, Washington, DC

Wednesday, 9 September 2009

9:00-9:05 9:05-9:15 9:15-9:25	Introduction/Welcome, West Ballroom Kimberly Jones, Howard University Judith Verbeke, NSF Nora Savage, EPA		
9:25-9:55 9:55-10:25	Presentation of CEINs Mark Wiesner, CEINT Andre Nel, UC CEIN		
10:25-10:40	Break		
10:40-11:20	Session 1: West Ballroom Fate, Transport & Transformation Co-Chairs: Mark Wiesner/Sharon Walker Keynote: Greg Lowry/Arturo Keller , Overview of the Challenges in Predicting NP Fate and Transport	Session 2: Forum 144/146 Toxicity/Ecotoxicology Co-Chairs: Richard Di Giulio/Patricia Holden Keynote: Anne Kahru , From Ecotoxicology to nanoeotoxicology	Session 3: Auditorium 151/155 Risk Perception, Risk Assessment & Life Cycle Assessment Co-Chairs: Elizabeth Casman/Hilary Godwin Keynote: Igor Linkov , Linking Risk Assessment, Decision Analysis and Life Cycle Assessment for Guiding Nanomaterials Development
11:20-11:40	Eric M.V. Hoek , Influence of Water Chemistry on the Stability and Toxicity of Metal and Metal Oxide Nanoparticles	Andre Nel , Using Predictive Toxicological Paradigm to Study Nanotoxicity and Design Safe Nanomaterials	Christine Robichaud , Estimating Nanomaterial Emission Sources from Production Information
11:40-12:00	Armand Mason , Aging of Commercial Nanomaterials: a New Environmental Challenge?	Joel A. Pedersen , Developmental Toxicity of Oxidatively Degraded Quantum Dots	Eric Money , Nano-Risk and Macro-Uncertainty: Using Probability Networks to Model the Environmental Implications of Nanotechnology
12:00-2:00	Lunch		
2:00-2:20	Session 1 cont. Tanapon Phenrat , Semi-Empirical Correlation to Predict the Collision Efficiency of Natural Organic Matter (NOM) - and Polymer-Coated Nanoparticle	Session 2 cont. Cole Matson , Silver Nanoparticle Behavior and Fish Embryotoxicity across a Salinity Gradient	Session 3 cont. Melanie Auffan , What Nanoparticles Merit Special Considerations from an Environmental, Health, and Safety Perspective?
2:20-2:40	Robert Hamers , Thermal and Oxidative Stability of Ligand-Modified Nanoparticles: Implications for Environmental Safety of Nanoparticles	Kevin Kwok , Implications of Silver Nanoparticles for Eleutheroembryos and Larval Medaka (<i>Oryzias latipes</i>)	Milind Kandlikar , The Impact of Toxicity Testing Costs on Nanomaterial Regulation
2:40-3:00	Ernest Hotze , Structure Affecting Reactivity: The Fullerene Example	Elise Fairbairn , Effects of Metal Oxide Nanomaterials on Sea Urchin Embryo Development	William Freudenburg , Real Risk, Perceived Risk, and Nanotechnology: Lessons from Current Research and Past Environmental Controversies
3:00-3:20	Jorge L. Gardea-Torresdey , CeO ₂ and ZnO Nanoparticles Undergo Differential Biological Transformations in Soybean Plants	Joel Meyer , Silver Nanoparticles Inhibit Growth in <i>Caenorhabditis elegans</i>	Darin Furgeson , Nanotoxicity Assessments with a Whole Zebrafish Model
3:20-3:40	Break	Break	Break
3:40-4:00	Matthew Hull , Effects of Surface Coating and Solution Ionic Composition on Aggregation of Au Nanoparticles in Freshwater Systems	Emilie Bigorgne , Ecotoxicity of Altered TiO ₂ Nanocomposite on the Earthworm, <i>Eisenia fetida</i>	
4:00-4:20	Sharon Walker , Transport of TiO ₂ Nanoparticles: Role of Solution Chemistry and Particle Concentration	Camille Larue , Investigation of nanoparticles and carbon nanotubes toxicity and transfer in plants	
4:20-4:40	Andrea Tiwari , Oxidation of Carbonaceous Nanoparticles in the Atmosphere: Effects of Ozonation on C ₆₀ Aqueous Solubility	Cyndee Gruden , Impact of Metal Oxide Nanoparticles on Microbial Cell Viability	
4:40-5:00	Break		
5:00-7:00	Poster Session		

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9:00-9:40	Session 4: Room 148/150 Natural Nanomaterials & Nanobiogeochemistry Co-Chairs: Michael Hochella, Jr./Jorge Gardea-Torresdey Keynote: Mitchel Doktycz , Microbially Mediated Transformation of Metal and Metal Oxide Nanoparticles	Session 5: Forum 144/146 Nanomaterial Characterization & Toxicity Screening Co-Chairs: Jie Liu/Ponisseril Somasundaran Keynote: Martin Hasselöw , Challenges and Current State of Physicochemical Characterization and Detection of Nanoparticles in Environmental Media	Session 6: Auditorium 151/155 Ecology & Ecosystem Response Co-Chairs: Paul Bertsch/Bradley Cardinale Keynote: Emily Bernhardt/Joshua Schimel , Known Knowns, Unknown Knowns and Unknown Unknowns: Challenges to Understanding the Impacts of Nanomaterials in Ecosystems
9:40-10:00	Michael Hochella, Jr. , Nanominerals, Mineral Nanoparticles, and Earth Systems: A Partial but Useful Guide to the Behavior of Anthropogenic Nanomaterial	James Mitchell , Analytical Characterization of Silver Nanoparticles and Nanoparticle Doped Media	Robert J. Miller , Differential Effects of Nano-Particulate Zinc Oxide and Titanium Dioxide on the Population Growth Rates of Marine Phytoplankton
10:00-10:20	Galen D. Stucky , Synthesis, Size-Selective Separation, and Chemistry of Composite Synthetic Natural Nanoparticles	Saji George , High Throughput Multiparametric Cytotoxicity Screening for Predictive Toxicological Assessment of Nanomaterials	Christina Arnaut , Microbial Inhibition and Silver Resistance Development in Wastewater Containing Silver Nanoparticles
10:20-10:40	Gordon Brown , Molecular-Level Studies of Iron Oxide and Silver Nanoparticles - Structure and Reactivity	Lee Ferguson , Analysis of Single-Walled Carbon Nanotubes in Estuarine Sediments by Near Infrared Fluorescence Spectroscopy	Bradley Cardinale , TiO ₂ Nanoparticles Stimulate Biomass Production in Freshwater Algae
10:40-11:00	Break	Break	Break
11:00-11:20	Dongxu Zhou , Stability and Photoactivity of Metal Oxide Nanoparticles in Natural Waters	Yingwen Cheng , Stability of Silver Nanoparticles Under the Irradiation of Sunlight	Teresa Kirschling , the Impact of Reactive Iron Nanoparticles on Microbial Diversity in Aquifer Soils
11:20-11:40	Andreas Gondikas , Surface Interactions of Thiol-Containing Organic Acids on Zinc Sulfide and Silver Nanoparticles	Xiaohua Fang , Correlation of Wettability/Hydrophobicity of Nanoparticles with their Toxicity on <i>Nitrosomonas europaea</i>	Antoine Thill , Physicochemical and Biological Interactions Between Manufactured Nanoparticles and Environmental Bacteria
11:40-12:00	Rebecca French , Schwertmannite: A Natural Nanomaterial's Role in Arsenic Cycling	Zhaoxia (Ivy) Ji , Optimization of Nanoparticle Dispersion in Various Cell Culture Media	Jason Unrine , Analytical Approaches for In Situ Characterization of Metal and Metal Oxide Nanoparticles in Soil Ecosystems
12:00-12:20		Elizabeth Suarez , UCLA Molecular Shared Screening Resource: Capabilities and Applications for Nanotoxicity Studies	Randy Mielke , Bioaccumulation and Biomagnification of CdSe Quantum Dots in a Simplified Microbial Food Chain
12:20-2:00	Lunch		
2:00-2:30	Education & Outreach Activities in CEINs, Auditorium 151/155		
2:30-3:00	Hilary Godwin , Engaging and Effectively Communicating our Results to Broad Range of Stakeholders: Education and Outreach Activities in the UC CEIN Glenda Kelly , Education and Outreach Initiatives in CEINT: Targeted Communication of Results Across Diversified Audiences		
3:00-3:45	International Efforts for Protocols Development		
3:45-4:00	C. Michael Garner, IANH Protocols Development		
4:00-5:00	Panel 1: Room 148/150 Protocols - Material Characterization & Preparation Co-Chairs: Mark Wiesner/Arturo Keller	Panel 2: Forum 144/146 Protocols - In Vivo Testing Co-Chairs: Cole Matson/Gary Cherr	Panel 3: Auditorium 151/155 Protocols - In Vitro Testing Co-Chairs: Claudia Gunsch/Patricia Holden

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9:00-10:30	Committee 1: Room 148/150 Nanomaterial Availability & Standards Co-Chairs: Jie Liu/Jeffrey Zink	Committee 2: Forum 144/146 Development of New Methods for Measurement in Complex Media Co-Chairs: Lee Ferguson/Jorge Gardea-Torresdey	Committee 3: Auditorium 151/155 Ecosystem Discussion Co-Chairs: Emily Bernhardt/Hunter Lenihan
10:30-10:45	Break		
10:45-11:45	Report Back from Panel and Committee Discussions, and Adjournment, Auditorium 151/155		

