

Center for the Environmental Implications of NanoTechnology 2019 Meeting

September 13th, 2019 Duke University

Sarah P. Duke Gardens • 420 Anderson St, Durham, NC 27708 • Park in Surface Lot at Duke Gardens Entrance If staying at Hilton Garden Inn, please speak with them the night before to arrange shuttle transportation

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8:30 – 9:00 AM	Continental breakfast
9:00 – 10:20 AM	Mark Wiesner: Nanomaterials: Not the next asbestos or What 20 years of nanomaterial research has taught us Greg Lowry: Theme 1 (Part 2) Fate and transport of nanomaterials in plants Christine Hendren: NanoEHS research as a pilot project in convergence science Nicholas Geitner: Alpha: What have we learned? Ethan Hicks: Modeling bacteriophage-induced disinfection of Escherichia coli utilizing particle aggregation kinetics Joana Sipe: Exposure and toxic effects of MWCNTs released from polymer products
10:20 – 10:35 AM	Break
10:35 – 12:00 PM	Jerome Rose: Mapping our learning on nanomaterials to prepare for environmental transitions Thilo Hofman: Moving from nanomaterials to microplastics: Refuse to repeat the same mistakes Will Boyes: Overview of nanotechnology EHS research at EPA: Changes and new directions Liz Casman: NP fate and transport modeling, risk assessment, and regulation Yilin Zhang: Temperature and pH responsive star polymers as nano-carriers for In vivo agrochemical delivery Danielle Slomberg: Impact of particles related to energy production on environmental and human health
12:00 – 12:45 PM	Lunch
12:45 – 1:55 PM	Linsey Marr: A gigasecond perspective on nanoparticles in the atmosphere Helen Hsu-Kim: Illuminating the connections between the environmental nanosciences and the trace element biogeochemical sciences Rafael Trevisan: PAH sorption to nanoplastics and the Trojan Horse effect as drivers of mitochondrial toxicity in early-life stage zebrafish Huiyuan Guo: Nanoprobes for surface-enhanced Raman spectroscopy (SERS) based pH sensing in confined microenvironments Chang Liu: Controlled dissolution kinetics study of silver nanoparticle: the role of particle size
1:55 – 2:10 PM	Break
2:10 – 3:30 PM	Joel Meyer: What have we learned about (mostly silver) nanomaterial toxicity in the Caenorhabditis elegans model? Cole Matson: Nanoparticles in mesocosms: Fate and transport, bioavailability, and ecosystem function David Hinton: Abraded MWCNT-embedded 3D printed nanocomposites toxicity in Japanese medaka (Oryzias latipes) Melissa Chernick: Anchoring liver responses after nanocomposite exposure

Zhao (Joanna) Wang: Different effects of Cu and Au engineered nanoparticles on aquatic microbial communities in wetland mesocosms

3:30 – 4:00 PM Group brainstorm: team papers to write; future collaborations

4:00 PM Adjourn

5:00 PM Informal meet-up in Downtown Durham for anyone who wants to go for happy hour &

dinner