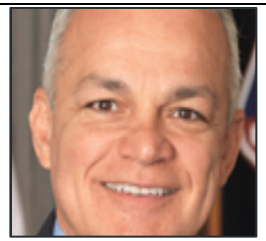
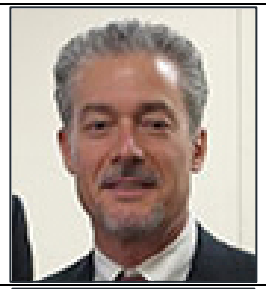
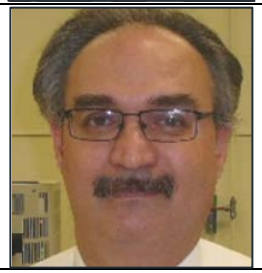
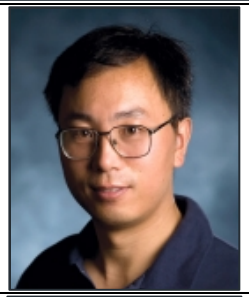
Norwegian	Faculty Attending		
	Name	Research focus	Presentation Title(s) or Panelist Workshop
	Astrid Aksnes Professor Department of Electronics and Telecommunications NTNU: Norwegian University of Science and Technology astrid.aksnes@iet.ntnu.no	Silicon photonic components based on waveguide and photonic crystal structures. Photonic sensors (biomedical, environmental, oil & gas etc), telecommunication components.	Co-chair for Nano/Bio 1 – Neuro, Optics *Sensor technology and optical imaging for biomedical applications* Co-Chair for Nano Energy 2 – Solar/Photovoltaics, Optics, Renewable Energy
	Katherine Aurand Graduate Student Department of Petroleum Engineering and Applied Geophysics NTNU: Norwegian University of Science and Technology katherine.r.aurand@ntnu.no		*Determining the optimum nanofluid for EOR*
	Torleiv Bilstad Professor Department Chemistry & Environmental University of Stavanger torleiv.bilstad@uis.no	Environmental technology, biomembranes, constructed wetlands	Co-Chair for Nanomaterials 1 – Structure, Multifunction & Environment *Designer Water*
	Anne Borg Dean of Natural Sciences Professor, Department of Physics Chair, NanoLab board NTNU: Norwegian University of Science and Technology anne.borg@ntnu.no	Multiple: Surface Physics, Materials, Physics, Scanning probe microscopy, Photoemission Spectroscopy, Density functional theory	Plenary Session: *The Nanotechnology Landscape in Norway: Education, Research Trends and Innovation Strategy* Co-Chair for Nano Energy 2 – Solar/Photovoltaics, Optics, Renewable Energy

	Arne Graue Professor Department of Physics and Technology University of Bergen arne.graue@ift.uib.no	Petroleum and process technology	Co-chair for Nano Energy 1 – Oil & Gas
	Jianying He Associate Professor Department of Structural Engineering NTNU: Norwegian University of Science and Technology jianying.he@ntnu.no	Anti-icing, Nanomechanics of polymer particles, Nano-enabled petroleum engineering, multi scale modelling. Arctic application, Electronic packaging, Solar module, microsystems, Oil and gas. **(Unable to attend.)**	Co-Chair for Nanomaterials 1 – Structure, Multifunction & Environment (In absentia)
	Morten Kildemo Professor Department of Physics NTNU: Norwegian University of Science and Technology morten.kildemo@ntnu.no	Plasmonics	*Using Mueller matrix (microscopy) imaging as a sensitive tool to ordered anisometric nanostructures in tissue.* *Revealing optical properties of nanostructured surfaces, nanoplasmonic surfaces and plasmonic metasurfaces using Spectroscopic Mueller matrix Ellipsometry.*
	Hilde Lea Lein Associate Professor Department of Materials Science and Engineering NTNU: Norwegian University of Science and Technology hilde.lea.lein@ntnu.no	Ceramics and metals, (high temperature) corrosion/degradation, surface and coating technology. Fuel cells, membranes, coating, corrosion and corrosion protection.	*Inorganic Materials and Ceramics Research Group @ NTNU*
	Sverre Magnus Selbach Associate Professor Department of Materials science and Engineering NTNU: Norwegian University of Science and Technology	Ferroelectrics, multiferroics, lead-free piezoelectrics, ionic conductors, inorganic nanoparticles, density functional theory. Oxide electronics, sensors, membranes.	Co-Chair for Nanomaterials 2 – Electronics Materials Synthesis & Characterization *Oxide nanomaterials for electronics at NTNU*

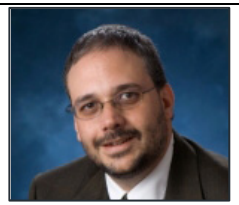
	sverre.magnus.selbach@ntnu.no		
	Pawel Tadeusz Sikorski Professor Department of Physics NTNU: Norwegian University of Science and Technology pawel.sikorski@ntnu.no	Bionanotechnology, biophysics, cell-nanostructure interactions, biomaterials; material characterization and microscopy. Nanotechnology based systems and devices for study of cells; biomaterials for tissue engineering.	*Nanotechnology based concepts for high throughput perturbation of single cells in cell arrays.*
	Justin Wells Professor Department of Physics NTNU: Norwegian University of Science and Technology quantum.wells@gmail.com	2D charge and spin transport phenomena, Shallow interfaces, Surface physics and surface chemistry. Quantum computation and spintronics. Inert coatings	Co-Chair, Nano/Bio 2 – Cancer & Optics *Understanding and manipulating the surface chemistry of chemotherapy drug delivery*

Agency and	Industry Panelists		
	Name	Research focus	Presentation Title(s) or Panelist Workshop
	Jim Friedheim Corporate Director, Fluids R&D M-I SWACO, a Schlumberger Company JFriedheim@miswaco.slb.com		Panelist in Nano Energy 1 – Oil & Gas
	Jim Kauffman Team Leader SABIC Technology Center jkauffman@americas.sabic.com		Panelist in Nano Energy 2 – Solar/Photovoltaics, Optics, Renewable Energy
	Douglas Terrier Chief Technologists NASA Johnson Space Center douglas.a.terrier@nasa.gov		Panelist in Nanomaterials 1 – Structure, Multifunction & Environment
	John Maida Chief Optical Scientist Haliburton Haliburton Applied Photonics Center John.Maida@Halliburton.com	Research and practice in enabling solutions for geophysical seismic sensing, oil/gas reservoir sensing, avionics flight control, and bio-physiological monitoring industries.	Panelist in Nano Energy 1 – Oil & Gas
	Eric Malroy Nanotechnology Lead NASA Johnson Space Center eric.t.malroy@nasa.gov		Panelist in Nanomaterials 2 – Electronics Materials Synthesis & Characterization Panelist in Nano/Bio 2 – Cancer & Optics
	William “Billy” Wallace	Toxicology and Environmental Chemistry, Biomedical Research and	Panelist in Nanomaterials 1 – Structure, Multifunction & Environment

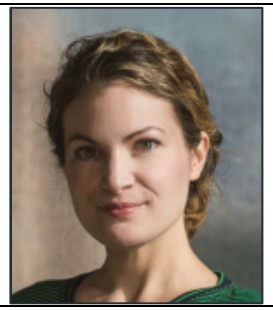
	Senior Scientist Wyle william.wallace-1@nasa.gov	Environmental Sciences Division Science, Technology & Engineering Group	

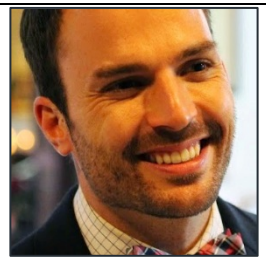
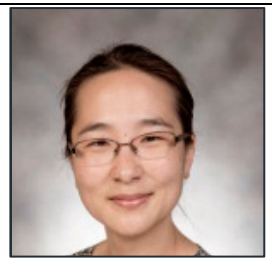
Texas Faculty	Presenting		
	Name	Research focus	Presentation Title(s) or Panelist Workshop
	Steven Baldelli Associate Professor Department of Chemistry The University of Houston sbaldelli@uh.edu	Surface chemistry, surface electrochemistry, laser spectroscopy	*Chemical Imaging of Surfaces using Nonlinear Optics*
	Jiming Bao Assistant Professor Department of Electrical & Computer Engineering University of Houston jbao@uh.edu	Synthesis, Patterning, and Assembly; Biomedical Sensing and Therapeutics; Energy Harvesting, Conversion and Storage; Optoelectronics and Photonics	*Graphene Oxide Liquid Crystals for Reflective Display without Polarizing Optics*
	Andrew Barron Professor Department of Chemistry Rice University arb@rice.edu	Nucleation and growth of Single-Wall Carbon Nanotubes. Proppants, fluid flow tracking and "fingerprinting."	Panelist in Nano Energy 1 – Oil & Gas

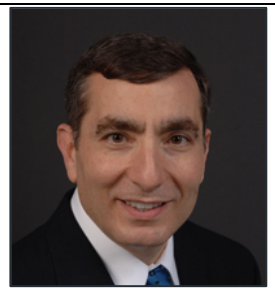
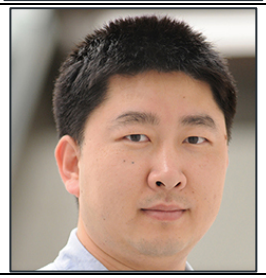
	Sandra Bishnoi Postdoctoral Fellow, Halas Group Department of Electrical and Computer Engineering Rice University sbishnoi@rice.edu	Designing nanoparticles for drug delivery and thermal ablation of metastatic tumors.	*Using plasmonic nanoparticles for the treatment of highly aggressive triple negative breast cancer tumors*
	Lisa (Sibani) Biswal Associate Professor Dept. of Chemical and Biomolecular Engineering Rice University biswal@rice.edu	Dr. Biswal's research program focuses on using chemical, biological, and engineering approaches to study soft materials such as colloids, polymers, lipids, and surfactants.	*Use of Micro Channels to Visualize Oil Processes*
	Walter Chapman Professor Department of Chemical & Environmental Engineering Rice University wgchap@rice.edu	Gas hydrates, asphaltenes, complex fluids in the interfacial region	Co-chair for Nano Energy 1 – Oil & Gas
	Zhengdong Cheng Professor Department Chemical Engineering Texas A&M University zcheng@mail.che.tamu.edu	Temperature-sensitive polymers and chemical reaction induced mechanical oscillations	*Nanoparticle Stabilized Emulsions and Foams for EOR and LNG Spill Mitigation*

	Gene Frantz Department of Chemical & Environmental Engineering Rice University genf@rice.edu	Digital Signal Processing	Panelist in Nanomaterials 2 – Electronics Materials Synthesis & Characterization
	Tony Y. Hu Director Nanopeptidomics Engineering Core Houston Methodist Research Institute yhu@houstonmethodist.org	Integrated mesoporous material based microsystems, semiconductor chips and nanotechnologies for imaging, sensing and regulating cellular processes .	*Nanopore-enabled peptidomics analysis in disease detection*
	Chun Huh Research Professor Dept. of Petro-leum & Geo-systems Engr. UT Austin chunhuh@mail.utexas.edu	Fundamental Processes; Nanoparticle Engineering for Subsurface Processes; Reservoir Engineering	*Nanoparticles for Improved Oil Recovery and Flow Assurance Applications.* (Overview of UT "Nanoparticles for Subsurface Engineering" JIP, incl. 10 different projects in progress).
	Jeffrey Jacot Assistant Professor Department of BioEngineering Rice University jeff.jacot@rice.edu	Pediatric cardio, including use of novel materials for tissue engineering or regenerative approaches. Tissue scaffold for pediatric heart valve therapy.	*Pediatric Cardiac Tissue Engineering*
	Kevin Kelly Associate Professor Department of Electrical and Computer Engineering Rice University kkelly@rice.edu	Electronic Materials; Microscopy; Nano-technology; compres-sed sensing - e.g. single-pixel camera	Co-Chair for Nanomaterials 2 – Electronics Materials Synthesis & Characterization (Need title for presentation in above session.) *Nanoscale investigation of organic photovoltaics @ interfaces*

	Tom Kraft Director of Technology Ventures Development Rice Alliance for Technology & Entrepreneurship **Rice University** tlk1@rice.edu		Plenary Session: *A View of the Commercialization Journey*
	Ramanan Krishnamoorti Professor Department of Chemical & Biomolecular Engineering The University of Houston ramanan@uh.edu	Nanomaterials, polymers, carbon nanotechnology; for materials strength, tissue replacmeent, drug delivery.	Co-Chair for Nanomaterials 1 – Structure, Multifunction & Environment *Nanoparticle based Dispersants*
	Christy Landes Associate Professor Department of Chemistry Rice University cflandes@rice.edu	Take cues from the structure-function interplay and use of cooperative pathways in nature's biomole-cular processes to inform design princi-ples for tailoring func-tional materials appli-cations. E.g., under-stand structure of glutamate receptors; molectular separation and detection.	Co-chair for Nano/Bio 1 – Neuro, Optics *Super-resolution methods for imaging dynamics at interfaces*
	Jenn-Tai Liang Professor Department of Petroleum Engineering Texas A&M University jenn-tai.liang@pe.tamu.edu	Using nano drug delivery technolo-gies for transport and controlled release of oilfield chemicals. Hydraulic fracturing fluid cleanup. Microbial enhanced oil recovery. Scale, wax, and asphalttene inhibition. In-depth conformance control. CO2 injection for carbon sequestration and improved oil recovery.	*Using Polyelectrolyte Complex Nanoparticles to Delay Gelation For In-Depth Conformance Control.*
	Jun Lou Associate Professor Materials Science & NanoEngineering Rice University jlou@rice.edu	Nanomaterial synthesis, nanomechanical characterization and nanodevice fabrication for energy, environmental and biomedical applications.	Panelist in Nanomaterials 1 – Structure, Multifunction & Environment

	Dan Mittleman Professor Department of Electrical and Computer Engineering Interim Faculty Director of the Smalley Institute Rice University daniel@rice.edu	Far-infrared spectro-scopy of materials using broadband sub-picosecond pulses of terahertz radiation. Engineering and environmental characterization: e.g. "see through" obstruc-tions in pipe to measure actual pipe conditions.	Plenary Session: Welcome and Introductions
	Mohammed Naraghi Assistant Professor Aerospace Engineering Texas A&M naraghi@tamu.edu	Thermal stabilization and carbonization of electrospun polymer nanofibers; carbon nanotubes in nanocomposites. Damping, self-healing and sensing in materials that incorporate carbon nanostructures.	*Structure-property relationships in carbon-based materials*
	Doug Natelson Professor Department of Physics & Astronomy Rice University natelson@rice.edu	My research group focuses on the electronic, magnetic, and (recently) optical properties of nanoscale structures. Over the last twenty years there has been tremendous progress in the ability to manipulate matter at levels approaching the atomic scale.	(Presented in Nanomaterials 2 – Electronics Materials Synthesis & Characterization.)
	Amina Qutub Assistant Professor Department of BioEngineering Rice University amina.a.qutub@rice.edu	Biological systems theory and design to characterize hypoxic response signaling and neurovascular dynamics. Her basic and translational research has applications in leukemia and brain cancer therapy; treatments for brain ischemia and Alzheimer's disease; and increased understanding of cellular and sub-cellular organization in vascular biology.	*Cell Engineering: Programming Cells, Renewing Life*

	Jacob Robinson Assistant Professor Departments of BioEngineering, Electrical and Computer Engineering Rice University jtrobinson@rice.edu	Nano to measure and manipulate activity of individual brain cells. Goal improve basic understanding of neural computation and treatment of neurological disorders.	*Nanotools for interrogating the brain*
	Rouzbeh Shahsavari Assistant Professor Departments of Civil & Environmental Engineering, Materials Science and NanoEngineering Rice University rouzbeh@rice.edu	Multiscale modeling to understand and predict behavior of complex materials. Polymers, cements; interfaces.	Co-Chair for Nanomaterials 1 – Structure, Multifunction & Environment
	Konstantin Sokolov Associate Professor Department of Imaging Physics Division of Diagnostic Imaging The University of Texas MD Anderson ksokolov@mdanderson.org	Early detection, diagnosis/prognosis and treatment of cancer and cardiovascular diseases through development of: *-Methodology and devices for in vivo imaging and spectroscopy with optical contrast. Smart biophotonic probes for molecular imaging. -Diagnostic assays for efficient capture, detection and analysis of rare cells in the body. -Engineered cells for theranostic applications.*	*Plasmonic nanosensors for molecular imaging of cancer micrometastasis*
	Junghae Suh Assistant Professor Department of BioEngineering Rice University jsuh@rice.edu	Precisely manipulate critical features of adeno-associated viruses (AAV) into nano-meter-scale devices; e.g. to develop virus-inspired nanoparticles able to diagnose and treat cancer. uses real-time high-res fluores-cence microscopy to characterize transport of biotherapeutics through complex biological barriers	Co-Chair, Nano/Bio 2 – Cancer & Optics *Programming genetically encoded nanoparticles to detect cancer-related proteases*

	Isabell Thomann Assistant Professor Department of Electrical and Computer Engineering Rice University isabell.thomann@rice.edu	Study engineered metallic (plasmonic) and dielectric nanostructures to solve problems in energy and photocatalysis. New tool: the temporal confinement of light down to attosecond durations has just become possible.	*Light Management in Extremely Thin Photoelectrode Architectures*
	James Tour T.T. and W.F. Chao Professor Departments of Chemistry, Materials Science & NanoEngineering Rice University tour@rice.edu	Si-Oxide for 1-D and 3-D memory, circuitry. Graphene nanoribbons in drilling fluids for thinner wellbore cake; graphene oxide for cleaning radionuclides from water. 3D carbon nanostructures for electronics, supercaps.	Plenary Session: *Nanotechnology for the Oil Field*
	Rafael Verduzco Louis Owen Assistant Professor Department of Chemical and Biomolecular Engineering Rice University rafaelv@rice.edu	Self-assembling block copolymers for materials strength, drug delivery, photo-voltaics	Co-Chair for Nano Energy 2 – Solar/Photovoltaics, Optics, Renewable Energy *Charge Separation in Conjugated Block Copolymer Photovoltaics*
	Jin Wang Assistant Professor Pharmacology Baylor College of Medicine wangj@bcm.edu	Synthesis and characterization of polymers and nanomaterials. Nanofabrication of biomaterials and bio-conjugation for targeted drug delivery. In-depth mechanistic knowledge and extensive experience with non-linear optics and ultrafast and nanosecond laser spectroscopy.	*Slices-to-Pie" Approach for Precise Fabrication of Sub-50 nm Monodisperse Nanoparticles*

	Scott Wellington Distinguished Faculty Fellow Department of Chemical & Biomolecular Engineering Rice University scott.wellington@rice.edu		Panelist in Nano Energy 1 – Oil & Gas