

IMNI

Institute for **Molecular**
and **Nanoscale Innovation**



Nanoscience forum

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IMNI Nanoscience Forum DETAILED PROGRAM AGENDA

Monday, May 5, 2008 – *Advanced Materials Symposium*

Seminar Room 190 - Charles H. Giancarlo Engineering Laboratories - Corner of Hope and George Sts

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|------------------|--|---|
| 9:00 - 9:30 a.m | William Curtin (<i>Brown</i>) | "Nanomechanics of dislocations: Controlling macroscopic instabilities" |
| 9:30 - 10:00 | Sharvan Kumar (<i>Brown</i>) | "Structure of dislocation cores in intermetallics" |
| 10:00 - 10:30 | Eric Chason (<i>Brown</i>) | "Thin film stress and surface morphology evolution: influence of non-equilibrium conditions" |
| 10:30 - 10:45 | Break – refreshments will be available outside of room 190 | |
| 10:45 - 11:15 | Vivek Shenoy (<i>Brown</i>) | "Growth morphologies of SiGe nanowires, quantum dots and surface patterns" |
| 11:15 - 12:15 | Yet-Ming Chiang (<i>MIT</i>) | "Nanomaterials in Battery Technology are Enabling the Coming Revolution in Electric Vehicles" |
| 12:15 - 1:30 p.m | Lunch – is available in the tent on Geo-Chem lawn area next to MacMillan Hall | |
| 1:30 - 2:30 | Zhong Lin Wang (<i>GATech</i>) | "Nanogenerators and Nanopiezotronics for Self-Powered Nanosystems" |
| 2:30 - 3:00 | Brian Sheldon (<i>Brown</i>) | "Interfaces and Mechanical Properties in NanoCeramic Coatings and Thin Films" |
| 3:00 - 4:00 | Paul Chaikin (<i>NYU</i>) | "Nanolithography with Diblock Copolymers" |
| 4:00 - 4:15 | Break - refreshments will be available outside of room 190 | |

Starr Auditorium – in Room 117 of the MacMillan Hall, - Corner of Thayer and George Streets

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| 4:30 - 5:30 | Angus Kingon (<i>Brown</i>) | "Converting Nanoscience Opportunities into Social and Economic Value" |
| 5:30 - 7:00 | Reception - on Geo/Chem lawn next to MacMillan Hall | |

Tuesday, May 6, 2008 – Nanoscience Symposium

Starr Auditorium – in Room 117 of the MacMillan Hall, - Corner of Thayer and George Streets

9:00 - 10:00 a.m.	Charles Lieber (<i>Harvard</i>)	"Nanowires, Nanoscience and Emerging Nanotechnologies"
10:00 - 10:45	Chia-Ling Chien (<i>JHU</i>)	"Nanomagnets: poles or no poles"
10:45 - 11:00	Break - refreshments will be available outside of room 117	
11:00 - 11:45	Jimmy Xu (<i>Brown</i>)	"Direct Nano-scale Conversion of Biomolecular Signals and Structures"
11:45 - 12:30	Daniel Worledge (<i>IBM</i>)	"Finding a successor to the field-effect transistor: prospects and challenges"
12:30 - 1:45 p. m.	Lunch – is available in the tent on Geo-Chem lawn area next to MacMillan Hall	
1:45 - 2:00	Welcome	
2:00 - 3:00	Mihail Roco (<i>NSF</i>)	"The long-term view in nanotechnology"
3:00 - 3:30	Huajian Gao (<i>Brown</i>)	"Modeling Interactions Between Nanoparticles and Cells"
3:30 - 4:00	Matthew Zimmt (<i>Brown</i>)	"Patterned surface assembly through molecular interactions"
4:00 - 4:30	Derek Stein (<i>Brown</i>)	"Solid-State Nanopores for Single Molecule Biophysics"
5:00 - 6:30	Reception - on Geo/Chem lawn next to MacMillan Hall	

Wednesday, May 7, 2008 -- NanoHealth Symposium

Seminar Room 190 - Charles H. Giancarlo Engineering Laboratories - Corner of Hope and George Sts.

9:00 - 9:10 a.m.	Introduction	
9:10 - 9:50	Lisa Pfefferle (<i>Yale</i>)	"Carbon Nanotube Synthesis for Biological Applications"
9:50 - 10:30	David Pui (<i>U. Minn</i>)	"Environmental, Health and Safety Studies of Nanoparticles"
10:30 - 10:45	Break – refreshments will be available outside of room 190	
10:45 - 11:25	Phil Gschwend (<i>MIT</i>)	Nanoparticles in the environment: What do geochemists already know?
11:25 - 12:15	Robert Hurt, Agnes Kane and David Rand (<i>Brown</i>)	"Interdisciplinary Nanotoxicology Research"
12:15 - 1:30 p. m.	Lunch – is available in the tent on Geo-Chem lawn area next to MacMillan Hall	
1:30 - 2:10	Robert Tanguay (<i>Oregon State</i>)	"Safer nanomaterial design guided by rapid throughput assessment of in vivo nanomaterial/biological responses"
2:10 - 2:50	Nancy Monteiro-Riviere (<i>NCSU</i>)	"Evaluating Dermal Hazards Associated with Nanomaterials"
2:50 - 4:10 p. m.	"Nanotechnology Policy Roundtable" -- Tim Leshan, Moderator	
	<i>Panel Members include:</i> Norris Alderson of the FDA, Sally Tinkle of NIH NIEHS, Vivian Ota Wang of NIH/NHGRI, Christine Dodd of IBM, Aatish Salvi, VP, Nano Business Alliance; Robert Hurt, Agnes Kane and Phil Brown of Brown University	
4:10 - 4:25	Break - refreshments will be available outside of room 190	
4:25 - 4:55 p. m.	Tom Webster (<i>Brown</i>)	"Nanotechnology for Regenerating Tissues: Hype or Reality?"
4:55 - 5:25	Shouheng Sun (<i>Brown</i>)	"Nanoparticle-based biomedical technologies"
5:30	adjourn	