IGERT Integrative Graduate Education and Research Traineeship
Cellular and Molecular Mechanics and BioNanotechnology

M-CNTC NCI Alliance for Nanotechnology in Cancer
Midwest Cancer Nanotechnology Training Center

CMMB IGERT and M-CNTC Annual Symposium

Thursday, May 8, 2014

8:00 AM – 4:30 PM

Venue: Micro and Nanotechnology Laboratory

Agenda

Revised 5/13/14

8:00 – 9:00 AM	**Continental Breakfast and Registration**	MNTL Atrium
9:00 – 9:15 AM	**Opening Remarks** Rashid Bashir, Head, Department of Bioengineering	1000 MNTL
9:15 – 9:30 AM	**Evaluation Report** Lizanne DeStefano, I-STEM Education Initiative Ayesha Tillman, I-STEM Education Initiative	
Session Chair	**Lizanne DeStefano,** I-STEM Education Initiative	
9:30 – 10:30 AM	**CMMB IGERT Research Highlights** *Presentations to include 1 minute comments/overview by adviser, followed by a 8 minute trainee presentation, and 2 minutes for Q&A* ***Uptake of SiO_2 Nanoparticles and Mechanobiology on the Cerebrovascular Endothelium*** Kevin Kim and Carlos Dostal ***Stem Cell Membrane Engineering: Approach for Modulating Cell-Biomaterial Interactions*** Gregory Underhill and Nidhanjali Bansal ***Fluorescent Carbon Nanoparticles from Molasses for Cancer Theranostics*** Rohit Bhargava and Shaneen Braswell ***Quantification of Microcirculatory Flow*** Brad Sutton and Alexander Cerjanic ***Identification of Non-coding RNAs Involved in Human Embryonic Stem Cell Fate Determination*** Fei Wang and Mahdieh Jadaliha	

10:30 – 10:45 AM	**Group Photo and Break**	MNTL Atrium
Session Chair	**Jimmy Hsia,** Mechanical Science and Engineering	
10:45 – 11:30 AM	**CMMB IGERT Research Highlights, continued** *Presentations to include 1 minute comments/overview by adviser, followed by a 8 minute trainee presentation, and 2 minutes for Q&A* ***Computational Design of a Hopping Biomechanical Machine*** Jimmy Hsia and Daniel Perlitz ***3D Microfabrication of Biological Machines*** Rashid Bashir and Ritu Raman ***Mechanically-Selected Tumorigenic Cells in Pancreatic Cancer*** Ning Wang and Brittany Weida ***Investigating Peptide Release from the Cells of the Dorsal Root Ganglion upon Mechanical Stimulation*** Taher Saif and Emily Tillmaand	1000 MNTL
Career Panel Moderators	**Alex Cerjanic,** IGERT Trainee, Bioengineering **Richard Graybill,** M-CNTC Trainee, Chemistry **Ritu Raman,** IGERT Trainee, Mechanical Science and Engineering	
11:30 AM – 1:00 PM	**Lunch Career Panel** • Laura Frerichs, Director of the University of Illinois Research Park • William Schuh, CMIO at Carle Foundation Hospital • Dustin Starkey, University Site Manager at Abbott Nutrition • Harry Radousky, Staff Scientist, Lawrence Livermore National Laboratory	MNTL Atrium and 1000 MNTL
Afternoon Session Chair	**Taher Saif,** Mechanical Science and Engineering	
1:00 – 1:45 PM	**M-CNTC Research Highlights** *Presentations to include 1 minute comments/overview by adviser, followed by a 8 minute trainee presentation, and 2 minutes for Q&A* ***"Shake-n-Incubate": Flow-Mediated Stem Cell Labeling with Superparamagnetic Iron Oxide Nanoparticle Clusters*** Hyunjoon Kong and Nick Clay ***Polyelectrolyte-wrapped surface-enhanced Raman scattering nanoparticles*** Rohit Bhargava and Brent DeVetter ***Forming of Janus Particle by Adsorption and Phase Separation*** Jimmy Hsia and Donghai Gai ***Gold Nanorods in the Extracellular Matrix and their Effect on Cancer Cell Migration*** Hyunjoon Kong and Elissa Grzincic	1000 MNTL

1:45 – 2:00 PM	**Break**	MNTL Atrium
2:00 – 2:40 PM	**M-CNTC Research Highlights, continued** *Presentations to include 1 minute comments/overview by adviser, followed by a 8 minute trainee presentation, and 2 minutes for Q&A* ***Microreactors for Synthesis of Molecular Imaging Probes*** Paul Kenis and Joseph Whittenberg ***Development of drug-polyester nanoconjugates for cancer therapy*** Jianjun Cheng and Qian Yin ***Facile and efficient preparation of anisotropic DNA-functionalized gold nanoparticles and their regioselective assembly*** Yi Lu and Li Huey Tan	1000 MNTL
2:40 – 4:00 PM	**Poster Session and Reception** *Currently funded trainees are required to present a poster and previous trainees are invited to present a poster.*	MNTL Atriums 1st and 2nd Floors
4:00 – 4:30 PM	**Closing Session** • Presentation of Trainee Certificates • Best Poster Awards • Concluding Remarks	1000 MNTL

Annual Symposium Sponsored by:

- NSF Integrative Graduate Education and Research Traineeship (IGERT) on Cellular and Molecular Mechanics and BioNanotechnology (CMMB)
- NIH/NCI Midwest Cancer Nanotechnology Training Center (M-CNTC)
- Department of Bioengineering
- Center for Nanoscale Science and Technology (CNST)
- Department of Bioengineering
- Micro and Nanotechnology Laboratory (MNTL)

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