

IGERT Retreat
Saturday, March 2, 2013
Syracuse Biomaterials Institute, 414 Bowne Hall

9:00-9:50 Careers in Industry Panel – continental breakfast served

10:00-10:05 Welcome - Cristina Marchetti

10:05-10:50 Presentations by IGERT Teams

- 10:05 Alisha Lewis (Chemistry IGERT Trainee), Mark Bowick (Physics) & Mat Maye (Chemistry): *Multi-Scale Modeling of DNA-Mediated Nanoclusters*
- 10:18 Fred Donelson (Bioengineering IGERT Trainee), Jay Henderson (BMCE) & Pat Mather (BMCE): *Design of Shape Memory Actuation Modalities to Enhance Stem Cell Osteogenic Differentiation*
- 10:30 David Lemon (Biology IGERT Trainee), Anthony Garza (Biology): *Bacterial mechanosensing of compressed hydrogels*

10:45-11:00 Break

11:00-11:40 Presentations by IGERT Teams

- 11:00 Rachel Meredith (Chemistry IGERT Trainee), Martin Forstner (Physics) & James Houghland (Chemistry): *Reconstituting complex biochemical reactions at biomimetic membranes: Towards a quantitative understanding of in vivo protein prenylation*
- 11:12 Ariel Ash-Shakoor (Bioengineering IGERT Trainee), Pat Mather (BMCE) & Jay Henderson (BMCE): *Shape Memory Polymers Meet Polyelectrolyte Multilayers*
- 11:24 Xingbo Yang (Physics IGERT Associate), Cristina Marchetti (Physics): *Bacterial patterns without chemotaxis*

11:40-12:20 Poster Discussions: Bowne 4th floor.

- Organizer: Liviu Movileanu

12:30 – 1:30 Lunch at Panda West

1:45- 2:45 Keynote lecture: Karen Burg, Hunter Endowed Chair and Professor of Bioengineering and of Electrical and Computer Engineering, Clemson University

- *3D Tissue Test Systems: Expanding the Domain of Regenerative Medicine*

2:45-4:00 Poster Discussions continued – Refreshments will be served

In parallel:

2:45-3:15 IGERT Fellows meet with Advisory Board, Bowne 318

3:15-3:45 PIs meet with Advisory Board, Bowne 318

3:45-4:45 Advisory Panel prepares report, Bowne 318

Poster Presentations – IGERT Retreat

Dapeng “Max” Bi: *Energy barriers for cellular rearrangements in tissues*

Eleni Degaga: *Force Dependent Changes in Non-Erythroid Spectrin and Ankyrins*

Huan Gu: *Patterned Biofilm Formation Reveals Critical Information of Bacteria-Surface Interactions*

Adophe Kazadi Badiambile: *Ion Induced Changes in Phosphoinositide Monolayers at Physiological Concentrations*

Jorge Lopez: *Jamming graphs: The unification of global and local mechanical stability for disordered particle packings*

Valerie Lopez: *Calcium Phosphonates Towards Bioactive and Biocompatible Materials*

Ian P. McCabe: *Dynamics of PIP₂-Ca²⁺ Structures in Lipid Bilayers*

Tagbo H.R. Niepo: *Controlling Pseudomonas aeruginosa persister cells by weak electrochemical currents and synergistic effects with tobramycin*

Kazage Utuje: *Collective Motility of Migrating Cell Layers*

Sven Wijtmans: *Identifying Defects in Disordered and Ordered Solids*

Aaron Wolfe: *Cation Selectivity is a Conserved Feature in the OccD Subfamily of Pseudomonas aeruginosa*

Pine Yang: *Gradient Wrinkles on a Functionally Graded Shape Memory Polymer*