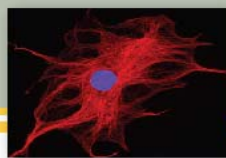
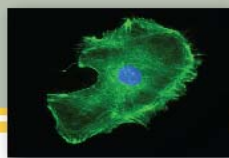
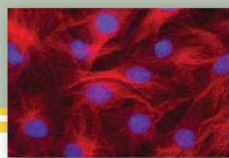
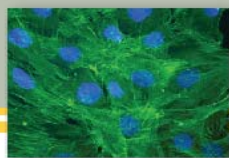


Workshop on Bioimaging and Engineered Biosystems



Iacocca Hall, Lehigh University

September 28-29, 2006

THURSDAY, SEPTEMBER 28, 2006

7:45	8:15	Registration and Continental Breakfast
8:15	8:30	Opening Remarks, S. David Wu, Dean and Iacocca Professor
8:30	9:15	Joseph Izatt (Plenary) – <i>Optical Coherence-Based Imaging and Sensing in Biomedicine and Biotechnology</i>
9:15	9:40	Andrew Tsourkas – <i>Engineering Molecular Probes for the Non-Invasive Imaging of Disease</i>
9:40	10:05	Bob Austin – <i>Upconversion Nanophosphors for Bioimaging</i>
10:05	10:30	Ahmed Heikal – <i>Navigating Cellular Biocomplexity with Molecular Sensitivity: Energy Metabolism</i>
10:30	10:45	Break
10:45	11:10	Carolyn Larabell – <i>Soft X-ray Nano-Tomography of Biological Cells</i>
11:10	11:35	Leon Esterowitz – <i>Research in Bioengineering and Biophotonics at the National Science Foundation</i>
11:35	12:00	H. Daniel Ou-Yang – <i>Optical and Rheometrical Imaging of Biomaterials and Living Cells</i>
12:00	1:30	Lunch
1:30	2:15	Thomas Huser (Plenary) – <i>Nano-Biophotonics for the Nondestructive Analysis and Characterization of Individual Living Cells</i>
2:15	3:15	5-minute invited presentations
3:15	3:30	Break
3:30	5:30	Breakout Discussions: <ol style="list-style-type: none"> 1. <i>Grand Challenges and Enabling Technologies in Bioscience and Biomedicine</i> 2. <i>The Impact of Nano-science/engineering on Bioimaging Technology</i> 3. <i>Image and Signal Processing in Live-Cell Microscopy</i>
5:30	6:00	Breakout reports and wrap-up
6:00	6:45	Cocktails and Hors-d'oeuvres
6:45		Dinner and Keynote Speaker: George Patterson – <i>Super-resolution imaging of intracellular fluorescent proteins using PhotoActivated Localization Microscopy (PALM)</i> Introduction by Mohamed El-Aasser, Provost

FRIDAY, SEPTEMBER 29, 2006

7:45	8:15	Continental Breakfast
8:15	8:30	Opening Remarks
8:30	9:15	Sandy Simon (Plenary) – <i>The Dynamics of Molecules at the Cell Surface During Exo- and Endocytosis: Why Study Single Events</i>
9:15	9:40	Lynn Cassimeris – <i>Cell Division: Harnessing Instability</i>
9:40	10:05	Bill Fester – <i>Challenges and Opportunities on the Forefront of Optical Microscopy</i>
10:05	10:20	Break
10:20	10:45	Hedi Mattoussi – <i>Quantum Dot-Bioconjugates: New Tools for Sensing and Probing Cellular Processes</i>
10:45	11:10	Matthias Falk – <i>Gap Junction Biosynthesis and Degradation Studied in Living Cells</i>
11:10	11:35	Ji-Xin Cheng – <i>Driving CARS into the Biological Field</i>
11:35	12:00	Robert F. Murphy – <i>Automated Determination of Subcellular Location Patterns by Fluorescence Microscopy</i>
12:00	1:00	Lunch
1:00	2:00	Panel Discussion – <i>Future Research Directions in Bioimaging and Engineered Biosystems</i>
2:00	2:30	Workshop wrap-up
2:30		Adjourn