

Friday, August 5, continued

- 1:30 p.m. **Jamie Conklin**
(Dr. Javier López) Lariat Stabilization *in vivo* : Methods and Application to Study the Autoregulation Mechanism of Sxl
- 1:45 **William Eimer**
(Dr. Jon Minden) Improvement of Difference Gel Electrophoresis for Potential Applications in Medicine
- 2:00 **Sara Baszczewski**
(Dr. Jon Minden) The Purification of Low Abundance Proteins in Blood Serum for Analysis by Difference Gel Electrophoresis
- 2:15 **Break**
- 2:30 **Sara Hudson**
(Dr. John Woolford) Identification of Binding Sites between Ytm1 and Erb1 in *Saccharomyces cerevisiae* 66S Pre-ribosomal Particles
- 2:45 **Olga Svetnikov**
(Dr. Fred Lanni) Development of a Photo-Activated Blocker of GTPase Signaling to the Cytoskeleton
- 3:00 **Nicolette Louissaint**
(Dr. Fred Lanni) Large-scale Remodeling of Collagen Matrix by Swiss 3T3 Fibroblasts
- 3:15 **Tina Jonas**
(Dr. Phil Campbell) Organizational Response of Mixed Cell Populations to Printed Patterns of FGF-2 Immobilized on Fibrin
- 3:30 **Elizabeth Wiltrout**
(Dr. Danith Ly) Synthesis of Microtubular Channels from Cyclic Peptide Nucleic Acid
- 3:45 **Closing Remarks by Dr. David Hackney**
- 4:00 **Reception in Mellon Institute Social Room**

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SURP Summer Undergraduate Research Program

2005 Symposium

Department of Biological Sciences
Carnegie Mellon University

Mellon Institute Conference Room
August 4-5, 2005



Thursday, August 4

1:00 p.m.	Orhan Ayasli (Drs. William Cohen and Robert Murphy)	Estimating Subcellular Protein Localization Patterns with Confidence using Data Extracted Automatically from Online Journals
1:15	Daniel Smith (Dr. Justin Crowley)	Optimization of <i>in vivo</i> Two-Photon Laser Scanning Microscope via Physiological Motion Removal
1:30	Sarah Pennie (Dr. Roberto Gil)	Structural Analysis of Solution Aggregates of a Modified β -Cyclodextrin Derivative
1:45	Andrew Larson Erb (Dr. Tomasz Kowalewski)	Development of Streamlined Signal Management and Processing Code for Scanning Probe Acceleration Microscopy
2:00	T.J. Corrigan (Dr. Gordon Rule)	Characterization of the Dynamics of Glutathione Transferase T2-2
2:15	Break	
2:30	Wesley Vosburg (Dr. Gordon Rule)	An Investigation into the Dynamics of Class Alpha Glutathione Transferases
2:45	Andy Hsieh (Dr. Robert Murphy)	Effects of <i>Ras</i> Oncogene on Subcellular Location Patterns in NIH 3T3 Cells
3:00	Eva Goellner (Dr. Robert Murphy)	Three Color Image Collection and Analysis of Protein Subcellular Location Patterns in CaCo2 Cells
3:15	John Sheridan (Dr. Robert Murphy)	Multiple Cell Type Imaging and Analysis with Subcellular Protein Features
3:30	Break	
3:45	Alexander Hu (Dr. Robert Murphy)	The Systemic Analysis of Organelle Patterns in Cells of Varying Lineages
4:00	Ryan Malecky (Dr. Terry Collins)	The Degradation of Tartrazine by Fe-TAML Catalyst and H ₂ O ₂
4:15	Juliana Lopez (Dr. Erik Thiessen)	Determining the Domain Specificity of Rule Learning Within the Visual Domain of Infants
4:30	Alex Greenwood (Dr. John Nagle)	Neutral Flotation Method for Determination of Membrane Volumes

Friday, August 5

9:00 a.m.	Ashley Krankowski (Dr. Rick McCullough)	New Conductive Elastomers based on Poly(3-hexylthiophene)
9:15	Joanna Calderon (Drs. Justin Crowley and Nathan Urban)	Development of Quantum Dot-Based Neuronal Tracers
9:30	Andreas Pfenning (Dr. Alison Barth)	A Comparative Genomic Approach to Identifying the Plasticity Transcriptome
9:45	Chris Stern (Dr. Alison Barth)	Timing of Gene Expression Using a <i>fos-Timer</i> Reporter Construct
10:00	Melissa Furlong (Dr. Eric Ahrens)	Human Mitochondrial Ferritin as a Reporter for Magnetic Resonance Imaging
10:15	Break	
10:30	Jared Wenger (Dr. Elizabeth Jones)	Mutational Analysis of the <i>Saccharomyces cerevisiae</i> Gene PBN1 through Alanine Scanning Mutagenesis
10:45	Lauren Williams (Dr. Tina Lee)	The Effects of N-ethylmaleimide on Three-Way Junction Density and Vesicle Budding Activity <i>in vivo</i>
11:00	Jasper Weinberg (Dr. Brooke McCartney)	The Role of Adenomatous Polyposis Coli 2 in Cytoskeletal Organization in Early <i>Drosophila</i> Development
11:15	Ed Briercheck (Drs. Brooke McCartney and Bruce Armitage)	The Use of Aptamers as a Novel Sensor of APC in Developmental Analysis of the <i>Drosophila</i> Fly
11:30	Kalin Vasilev (Dr. Jon Jarvik)	Attacking the Secretome of Mammalian Cells Using CD-Tagging
11:45	James Malatack (Dr. William Brown)	Optimizing Cell Surface Expression of Single Chain Variable Fragments (ScFv) on Yeast
12:00 p.m.	Break	
1:00	Claudia Lins (Dr. Javier López)	Mechanism of Activation of a Non-exonic Recursive Splice Site
1:15	Aaron Goldman (Dr. Javier López)	Functional Analysis of a Non-exonic Recursive Splice Site