2006 Undergraduate Biochemical Sciences Honors Theses

Milena Maria Andzelm
The Role of Myosin II in Natural Killer Cell Effector Function
Dr. Jack L. Strominger, Laboratory Sponsor

Feng Chen
Complex roles of Sir2 homologues in yeast chronological lifespan extension and stress resistance
Dr. David Sinclair, Laboratory Sponsor

Christopher Mark Chin
Advances Toward The Identification Of Ligands Of Human Natural Killer Cell Activating Receptors NKp30, NKp44, and NKp46
Dr. Jack L. Strominger, Laboratory Sponsor

Shelly SeungAh Choo
Structural and Biochemical Studies of the N-Terminal Region of the Temperature-Sensing TRPV Ion Channels
Dr. Rachelle Gaudet, Laboratory Sponsor

Robert L. Cohen
Functional Studies of the Budding Yeast Kinetochore Protein Mif2p by X-ray Crystallography and Biochemistry
Dr. Stephen C. Harrison, Laboratory Sponsor

James Sawalla Guseh, II
Studies on Lung Progenitors in Pulmonary Organogenesis
Dr. Douglas A. Melton, Laboratory Sponsor

Mark Kaganovich
The effect of SspB linker length on substrate delivery to the ClpXP protease
Dr. Robert T. Sauer, Laboratory Sponsor

Jessica J. Kim
Characterization of the Oncogenic Activity of the Microphthalmia-Associated Transcription Factor Family
Dr. David E. Fisher, Laboratory Sponsor

Zachary William Kostun
Isolation, Expression and Function of the Transcriptional Regulator Af9 in Zebrafish
Dr. Alan J. Davidson, Laboratory Sponsor

Ana Lako
Mechanisms of Memory For Polycomb Group Complex Mediated Transcriptional Regulation During Replication
Dr. Nicole J. Francis, Laboratory Sponsor

HeeWon Lee
Identification of cooperating oncogenes in megakaryoblastic leukemia by retroviral insertional mutagenesis
Dr. Stuart Orkin, Laboratory Sponsor

Aabed B. Meer
Identification of a locus on chromosome 20p13 and sequencing of candidate genes for a
new autosomal recessive mental retardation syndrome
*Dr. Christopher A. Walsh, Laboratory Sponsor*

**Alexandra Neuhaus-Follini**
The Human Origin Recognition Complex: Recombinant Expression in *E. coli* and Biochemical Analysis
*Dr. David Jeruzalmi, Laboratory Sponsor*

**Jennifer Yi-Jiun Pan**
Characterization of B cell receptor-containing endosomes in activated B cells
*Dr. Hidde L. Ploegh, Laboratory Sponsor*

**Rameez A. Qudsi**
Towards “Same-Day” Vascularized Bone Engineering Using Adult Bone Marrow-Derived Mesenchymal Stem Cells
*Dr. Joseph Vacanti, Laboratory Sponsor*

**Aimee Richard**
Characterization of *Listeria monocytogenes* Determinants Required for Cell-to-Cell Spread
*Dr. Darren E. Higgins, Laboratory Sponsor*

**Eugenie Shieh**
Membrane Biogenesis and Phagocytosis
*Dr. Axel Nohturfft, Laboratory Sponsor*

**Bushra W. Taha**
The Genomic and Molecular Tracing of the Evolutionary Origins of the Olfactory and Vomeronasal Systems: The Duplication of *fez* and *fezl* in Mouse, Zebrafish, and Frog
*Dr. Catherine Dulac, Laboratory Sponsor*

**Shan Tang**
Progenitor Cells In The Developing *Drosophila* Gut: Wild Type Characterization And The Role Of Major Signal Transduction Pathways
*Dr. Norbert Perrimon, Laboratory Sponsor*

**Samir Kumar Trehan**
Investigation of the Mechanism of Action of Troponin I as an Angiogenesis Inhibitor
*Dr. Marsha Moses, Laboratory Sponsor*

**Lily Tung**
Generation of recombinant baculovirus for desmoglein 3 and 4 proteins
*Dr. Jack Strominger, Laboratory Sponsor*

**Katherine Haye Walker**
Role of Interleukin-8 Signaling in Glioma Cell Proliferation and Invasiveness
*Dr. Azad Bonni, Laboratory Sponsor*

**Chenwei Wu**
Investigation of protein-protein interactions that mediate *Plasmodium* invasion of host liver and red blood cells during malarial infection
*Dr. Robert Ménard and Dr. Manoj T. Duraisingh, Laboratory Sponsors*

**Xiaolong Zhou**
Characterization of the Role of Rab5 and the Clathrin Heavy Chain C-terminus in Clathrin-Mediated Endocytosis
*Dr. Tomas L. Kirchhausen*
Feilin A. Zhu
Regulation of IL-10 induction from epithelial cells by CD1d-restricted NKT cells
Dr. Richard Blumberg, Laboratory Sponsor