

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 *fez1* 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