

BBSI 2006 Research Presentations
Tuesday, July 25 – Thursday, July 27, 2006
3073 BST3

Tuesday, July 25, 1:00 – 3:00PM

- 1:00 – 1:30** **Marie Wilkening**
First Pass Monte Carlo Simulation of Basic Eukaryotic Cell Cycle Regulation Mechanism
Mentor: Joel R. Stiles, Center for Quantitative Biological Simulation, Pittsburgh Supercomputing Center
- 1:45 - 2:15** **Nicole Kennerly**
Using Stochastic Differential Equations to Model the Ups and Downs of Patients with Bipolar Disorder for Clinical Purposes
Mentor: Shlomo Ta'asan, Carnegie Mellon University
- 2:30 – 3:00** **Chris Hackmeyer**
Docking Studies of the Binding Mode of Dictyostatin and Its Analogues to the Taxoid Binding Site on β -Tubulin
Mentor: Billy W. Day, Dept. of Pharmaceutical Sciences, School of Pharmacy, Dept. of Chemistry, University of Pittsburgh

Wednesday, July 26, 1:00 – 4:30PM

- 1:00 – 1:30** **Chi Zheng**
Quantitative Image Analysis and 3-D Digital Reconstruction of the Right Coronary Aortic Valve Leaflet
Mentors: John A. Stella and Michael S. Sacks, Dept. of Bioengineering, University of Pittsburgh
- 1:45 - 2:15** **Megan Jeans**
Coupling Hair Follicle Cycles to Produce Traveling Waves
Mentor: G. Bard Ermentrout, Dept. of Mathematics, University of Pittsburgh
- 2:30 – 3:00** **Ryan Cheng**
Monte Carlo Simulations of Protein Folding using Lattice Models
Mentor: Kenneth Jordan, Dept. of Chemistry, University of Pittsburgh
- 3:15 – 3:45** **Jenny Shen**
A Bioinformatics Approach to the Structural and Functional Analysis of the Glycogen Phosphorylase Protein Family
Mentor: Hugh B. Nicholas, Jr., Biomedical Initiative Group, Pittsburgh Supercomputing Center
- 4:00 – 4:30** **Amanda McCoy**
Weighted-Ensemble Brownian Dynamics Simulation
Mentor: Daniel M. Zuckerman, Dept. of Computational Biology, University of Pittsburgh

BBSI 2006 Research Presentations (cont'd)
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Thursday, July 27, 1:00 – 4:30PM

- 1:00 – 1:30** **Angelo Kontgas**
Evolution of Tumor Viruses
Mentor: Bino John, Dept. of Computational Biology, University of Pittsburgh
- 1:45 - 2:15** **Zofia Koscielniak**
A Population Firing Rate Model of Reverberatory Activity in Neuronal Networks
Mentor: G. Bard Ermentrout, Dept. of Mathematics, University of Pittsburgh
- 2:30 – 3:00** **Ji Lee**
Implementation of K-Factor Algorithm and Its Application to the Identification of microRNA Regulatory Elements
Mentor: Bino John, Dept. of Computational Biology, University of Pittsburgh
- 3:15 – 3:45** **Abderrahmane Benghanem**
Molecular Dynamics Simulation of HIV-1 Reverse Transcriptase
Mentor: Maria Kurnikova, Carnegie Mellon University
- 4:00 – 4:30** **Stephanie Lucas**
Sequence Analysis of the Human Immunodeficiency Virus Type 1 Genome
Mentor: Takis Benos, Dept. of Computational Biology, University of Pittsburgh