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
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