Computational Biophysics

November 28 - December 1, 2005

SPONSORS:

- National Center for Research Resources
- PSC's Biomedical Initiative. An NIH Resource Center
- NIH Resource for Macromolecular Modeling and Bioinformatics

SITE:

Pittsburgh Supercomputing Center (PSC)
Mellon Institute Building, Pittsburgh, PA

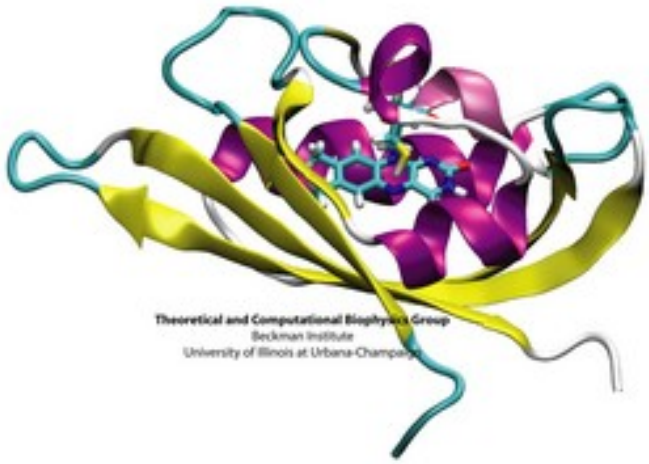
APPLICATION DEADLINE: **October 24, 2005** -- Applications are no longer being accepted

DESCRIPTION:

The workshop will explore physical models and computational approaches used for the simulation of biological systems and the investigation of their function at an atomic level. The course will be based on case studies including the properties of membranes and membrane proteins, mechanisms of molecular motors, trafficking in the living cell through water and ion channels, and signaling pathways. Relevant physical concepts, mathematical techniques, and computational methods will be introduced, including force fields and algorithms used in molecular modeling, molecular dynamics simulations on parallel computers and steered molecular dynamics simulations.
The workshop is designed for graduate students and postdoctoral researchers in computational and/or biophysical fields who seek to extend their research skills to include computational and theoretical expertise, as well as other researchers interested in theoretical and computational biophysics. Theory sessions in the morning will be followed by hands-on computer labs in the afternoon in which students will be able to set up and run simulations.

Enrollment is limited.

- TOPICS
- TENTATIVE AGENDA
- INSTRUCTORS
- ONLINE APPLICATION
- ONLINE TUTORIALS



- READINGS
- PROGRAMS
- FINANCIAL INFORMATION
- PARTICIPANT INFORMATION

Research **Service** **Training** **Dissemination**
Pittsburgh Supercomputing Center - Biomedical Initiative - An NIH Supported Resource Center

URL: http://www.psc.edu/biomed/training/workshops/2005/NAMD/index.html
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