

Twentieth Annual Computational Neuroscience Meeting CNS*2011

July 23-28, 2011 in [Stockholm, Sweden](#)

Workshop: Multi-Scale Modeling in Computational Neuroscience: Challenges and Opportunities.

Organizers:

James M. Bower, University of Texas Health Science Center, San Antonio, TX (bower@uthscsa.edu);
Ilya A. Rybak, Drexel University College of Medicine, Philadelphia, PA (rybak@drexel.edu).

Abstract: The U.S. National Institutes of Health, the U.S. National Science Foundation, and several other US federal funding agencies have recently organized a cross agency consortium on Multi-Scale Modeling with working groups covering a wide range of biological systems and research approaches. The IMAG (Interagency Modeling and Analysis Group) has organized a wiki to centralize the discussion and description of multi-scale modeling in biological research (http://www.imagwiki.nibib.nih.gov/mediawiki/index.php?title=Main_Page).

One of working groups that is part of this larger effort is focused on the development and use of multi-scale modeling in computational neuroscience. Drs. Bower and Rybak are the organizing leaders for this working group. In this CNS 2011 workshop, Drs. Bower and Rybak will lead a discussion around the challenges and opportunities represented by multi-scale modeling in computational neuroscience. The workshop will start with several short presentations of case studies in the current application of multi-scale modeling in computational neuroscience. The majority of the workshop will then be devoted to discussing the technical issues, scientific opportunities, and developments and directions necessary to support multi-scale modeling. The results of this discussion will be added to the IMAG wiki and will be presented to the Multi-scale Modeling Consortium in August.

This workshop represents an opportunity for the CNS community to influence the direction of future funding for modeling in general and multi-scale modeling efforts in particular. The organizers would be happy to receive proposals for short talks (no more than 15 minutes long) demonstrating the actual biological applications of multi-scale modeling.

To propose a talk please contact Dr. Bower (bower@uthscsa.edu) or Dr. Rybak (rybak@drexel.edu). Speakers will be also announced through the IMAG wiki