

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

Organizers:

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Abstract: Following last year's highly successful CNS 2011 workshop, we will once again consider and discuss challenges and issues in multi-scale modeling as they apply to understanding nervous systems. Specifically, last year's workshop produced an outline for a taxonomy for multi-scale modeling (see figure), which was proposed as a mechanism for better understanding the structure of multi-scale modeling efforts. This coming workshop will focus on the further exploration of this taxonomy, with several short initial presentations on its development and applications over the last year. The workshop is being organized by the co-chairs of the Computational Neuroscience Working Group of IMAG, a multi-federal agency consortium based at the National Institutes of Health, tasked with exploring and developing multi-scale modeling in biology, including the U.S. National Institutes of Health, the U.S. National Science Foundation. (http://www.imagwiki.nibib.nih.gov/mediawiki/index.php?title=Main_Page). The results of this discussion will be added to the IMAG wiki and will be presented to the Multi-scale Modeling Consortium at NIH. This workshop therefore 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.

