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FOR IMMEDIATE RELEASE

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Biophysical Society Announces New and Notable Symposium Speakers

Bethesda, MD— The Biophysical Society has announced the speakers for the New and Notable Symposium at the Joint Meeting of the Biophysical Society and the International Biophysics Congress in Long Beach, California, February 2-6, 2008. The new and notable symposium highlights the latest and most exciting discoveries in biophysics. Speakers are nominated and selected by the Society's program committee. The session will take place Tuesday February 5, 2008 from 4:00-6:00 PM in Ballroom 1 of the Long Beach Convention Center. Registration for the meeting is required.

New and Notable Symposium Speakers and Information:

The Effect of Chaperone SecB on MBP Folding: A Single-molecule Study. **Sander J. Tans, AMOLF institute, Amsterdam, the Netherlands.**

Dr. Tans has conducted the first experimental study to show how a chaperone affects a protein folding pathway. The chaperone was shown to interfere specifically with some folding transitions, and to prevent protein aggregation. Laser tweezers combined with MD simulations enabled these single molecule investigations. Studies of folding pathways have so far mainly focused on proteins in isolation. Protein misfolding and aggregation is thought to cause Alzheimers disease, for instance. This work was recently published in *Science*.

The Kinesin13-microtubule Complex. **Hernando Sosa, Albert Einstein College of Medicine.**

Dr. Sosa has recently obtained a 3D map by cryo-electron microscopy and helical reconstruction of the kinesin-13 motor domain interacting with microtubules. The structure is very different from other kinesin-microtubule complexes. It shows the kinesin13 motor domain interacting with a curved protofilament and reveals a new microtubule binding site on the motor domain. This is the first 3D cryo-em map revealing the interaction of the kinesin-13 motor domain with a curved protofilament and provides a snapshot of the depolymerization cycle.

**High-resolution Structure of the Human beta2-adrenergic Receptor.
Vadim Cherezov, The Scripps Research Institute.**

Dr. Cherezov has solved the first high-resolution structure of a human G protein-coupled receptor with a diffusible ligand. This breakthrough represents the initial step in elucidating structural aspects of the ligand binding specificity and the mechanism of signal transduction by this diverse family of human druggable receptors. This is a major breakthrough that could only have been realized with the conjunction of the in meso method for membrane protein crystallization, a novel synchrotron X-ray beam and a suitably engineered protein. The target protein is of great biological and medical relevance.

Determining the Architectures of Macromolecular Assemblies by Integrating Spatial Restraints from Proteomic Data.

Frank Alber, University of Southern California.

Dr. Alber has devised an integrative approach to determine the architectures of macromolecular assemblies from diverse biophysical and proteomic data. By applying this approach, he and his colleagues have determined the configuration of the 456 proteins in the nuclear pore complex (NPC) and gained insights into the assembly's evolution and architectural principles. The NPC controls the access of macromolecules in and out of the cell nucleus. The approach can, in principle, be applied to resolve the architectures of many other macromolecular complexes.

For more information or press credentials, contact Ellen Weiss at eweiss@biophysics.org, or stop by the Society office located in the Room 103A of the Long Beach convention center.

The International Union for Pure and Applied Biophysics is a member of the ICSU (International Council for Science) family. Affiliated to it are the national adhering bodies of 50 countries. Its function is to support research and teaching in biophysics. Its principal regular activity is the triennial International Congresses and General Assemblies.

The Biophysical Society, founded in 1956, is a professional, scientific society established to encourage development and dissemination of knowledge in biophysics. The society promotes growth in this expanding field through its annual meeting, monthly journal, and committee and outreach activities. Its nearly 8000 members are located throughout the U.S. and the world, where they teach and conduct research in colleges, universities, laboratories, government agencies, and industry. For more information on the society or the 2008 annual meeting, visit www.biophysics.org