

Activities of the Biological Macromolecules Special Interest Group of the American Crystallographic Association, 2008

Biomac SIG contributions to 2008 ACA meeting. Planning for the Knoxville meeting began in earnest at the 2007 Salt Lake City meeting. Prior to that meeting, email solicitation of ideas for topics led to ideas that were fleshed out at our annual BioMAC SIG organizational meeting. Resulting from these discussions, our SIG decided to individually sponsor seven sessions and co-sponsor four additional sessions for the 2008 Knoxville meeting. All of these were accepted for the program in Knoxville. These are New Structures, Engage Your Brain, Structural Enzymology, Systematic Molecular Anatomy, Structural Phylogeny & Evolution, Difficult Structures, How Structures are used by Others, Practical Approaches to Improving the Formation & Diffraction-quality of Protein Crystals, Structural Biology in Neurological Diseases (co-sponsored with Industrial SIG), Microcrystals (co-sponsored with Synchrotron SIG) Computational Crystallography (co-sponsored with Young Scientists SIG) and Time Resolved Scattering (co-sponsored with Small Angle Scattering SIG). In addition, we led the Transactions Symposium in Complementary Methods for Structure/Function Studies of Biomolecules (co-sponsored with Neutron, Small Angle Scattering and Synchrotron SIGs, chaired by Carrie Wilmot (BioMac SIG) and Susan Kreuger (Neutron SIG)), and the Patterson Award Symposium to B.C. Wang (SIG members John Rose and Gary Newton have done a superb job of putting together a fantastic program to honor B.C.). Carrie Wilmot, Jack Tanner and John Horton chose Alexey Amunts (Tel Aviv University, Israel) as the BioMac SIG Etter Student speaker for his seminal work on photosystem I. He gave his talk during the Difficult Structures session. The session chairs have all done a superb job organizing these sessions, identifying excellent speakers and, often, obtaining financial support.

A concern is that the large size of the BioMAC SIG group makes it difficult to reach a consensus that accurately reflects the desires and needs of the whole community. Perhaps as a result of this size, a certain level of apathy appears to exist. Last year, our then chair-elect, Carrie Wilmot, raised money to provide lunch for the BioMac planning meeting (see below). This appears to have increased attendance at the planning meeting, and we think this led to a more representative group. This is being repeated in Knoxville, this time organized by current chair-elect John Horton. In addition there have been more e-mail responses to requests for BioMac topics for the 2009 meeting, which suggest more SIG members are becoming engaged.

The present BioMac SIG chair (Carrie Wilmot) would like to thank all the session chairs that contributed so much to the success of the 2008 Knoxville meeting. Secretary/treasurer, Jack Tanner, has done a superb job during his tenure (2007-2008); always supportive and willing to do whatever is needed to make BioMac a successful SIG, and the 2008 and 2009 meetings a success. BioMac SIG will be looking for nominations from SIG members for potential secretary/treasurer candidates to replace Jack during the next few months. John Horton (chair-elect) is doing a superb job, with planning for the 2009 Toronto meeting off to a flying start. We will also be looking for nominations for the 2009 chair-elect from SIG members during the coming months.

Planning for the 2009 ACA meeting. Planning for the 2009 ACA meeting is being ably led by John Horton and Jack Tanner. We had a very productive SIG planning meeting to develop various possibilities for sessions that we would like to sponsor for the Toronto meeting. The outcome of this meeting was a list of 12 session topics that we would like to sponsor:

Structural Enzymology (30 votes). It was agreed this should be annual for the foreseeable future.

Exciting Structures (28 votes). Combining Difficult & New Structures. This should be annual.

Computational Methods: Refinement (25 votes)

Structure in Vaccine Design (20 votes) Chairs: Peter Kwong / Ian Wilson

Membrane proteins (20 votes)

"Green" Biochemistry (biofuels & bioremediation) (18 votes)

Crystallization Methods (incl. protein expression) (18 votes)

Structure Based Drug Design (with Industrial SIG) (16 votes)

Diagnostic Data Collection (16 votes)

Twinning (with Small Molecule SIG) (15 votes)

Chromatin Remodeling (10 votes)

Carbohydrate Recognition (8 votes)

Subsequent to the SIG meeting there were positive comments for another disease based session following the success of the Neurological Diseases session in Knoxville (with Industrial?), and a Complementary Methods session on Biomolecular Complexes (with SAS SIG) based on the attendance at the Transactions Symposium on Complementary Methods for Structure / Function Studies of Biomolecules at Knoxville.

Finally there was strong support for plenary lectures from senior people who had made substantial contributions during their career. These should precede the start of morning sessions. To start with perhaps one at the start of the start of the conference, and one to start the last day of the conference. If successful, these could be increased in subsequent years.