

Activities of the Biological Macromolecules Special Interest Group of the American Crystallographic Association, 2007

Biomac SIG contributions to 2007 ACA meeting. Planning for the Salt Lake City meeting began in earnest at the 2006 Honolulu 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 individually sponsor eight sessions and co-sponsor four additional sessions for the 2007 Salt Lake City meeting. These included: New Structures, Strategies for Crystallization Challenged Macromolecules, Experimental Phasing with Longer Wavelength X-rays, New Membrane Protein Structures, Informatics in Structural Biology, Function from Structure, Computational Methods, Large and Difficult Structures, Structural Mechanisms of Infectious Diseases (co-sponsored with Industrial SIG), Radiation Damage and Microcrystals and Microbeams (both co-sponsored with Synchrotron SIG) and Biomacromolecular assemblies and Biomembranes (co-sponsored with small angle scattering). In addition, we participated in sponsoring the Transactions Symposium in Diffuse Scattering. The session chairs have done a superb job organizing these sessions, identifying excellent speakers and, often, obtaining financial support.

A lingering 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 as evidenced by the low number of email responses to our requests for topic areas and lower than desirable attendance at our annual planning meeting. This year, our 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; we think this led to a more representative group. We are still interested, however, in exploring ways to improve the situation. One possibility, which was discussed at the Honolulu meeting would be to allow members to select an interest area within the broad area of biological macromolecules on their membership forms. One final concern, which was raised at our planning meeting, is a need to try to avoid conflicts with other meetings of interest to our community. This year the Protein Society is now meeting in Boston at the same time as our ACA meeting in Salt Lake City. John Horton, our chair of the New Structures session, reported that at least two speakers he invited had to decline because they were speaking at the Protein Society meeting. We understand that these meetings are planned well in advance, but we ask that this concern be considered in planning future meeting dates.

The present BioMac SIG chair (Bill Royer) would like to thank all the session chairs that contributed so much to the success of the 2007 Salt Lake City meeting and also Pat Loll (secretary/treasurer 2005-2006) and especially Craig Ogata (chair, 2006) for their superb work and advice. He would also like to thank our chair-elect, Carrie Wilmot, and secretary/treasurer, Jack Tanner, for getting the planning for the next ACA meeting off to a great start.

Planning for the 2008 ACA meeting. Planning for the 2008 ACA meeting is being ably led by Carrie Wilmot and Jack Tanner. We had a very productive SIG planning meeting to cull various possibilities for sessions that we would like to sponsor for the Knoxville meeting. The outcome of this meeting was a list of twelve session topics that we would like to sponsor:

1. Engage your brain (how to know when something is going wrong during structure determination).
2. Structural enzymology
3. New structures (especially unpublished structures)
4. Difficult structures (how were the difficulties overcome?)
5. Crystallographic computational methods
6. Computational methods (how are structures used?)
7. Optimizing data quality (sample integrity, balancing dose vs. resolution)
8. Crystallization
9. Time-resolved analysis (joint with small angle scattering)
10. Crystallography applied to neurological disorders (possibly joint with Industrial SIG)
11. Structural/molecular phylogeny
12. Microcrystals (joint with Synchrotron SIG)

We also plan to contribute to a transactions symposium on complementary methods and sponsor the Patterson Symposium for B.C. Wang.