

# Activities of the Biological Macromolecules Special Interest Group of the American Crystallographic Association, 2009

BioMac SIG contributions to 2009 ACA meeting. Planning for the Toronto meeting began in earnest at the 2008 Knoxville meeting. Prior to that meeting, email solicitation of ideas for topics, in addition to proposals by the 2009 SIG Chair, 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 five additional sessions for the 2009 Toronto meeting. All of these were accepted for the program in Toronto. These are Exciting Structures (a combination of the old “New Structures” and “Difficult Structures” sessions), Vaccine Design, “Green” Biochemistry, Crystallization Methods, Structural Enzymology (expanded to two sessions several months ago as its popularity was evident via the number of abstracts submitted), Chromatin Remodeling, and Carbohydrate Recognition. THE BioMac SIG co-sponsored many sessions with other SIGs including Structure-Based Drug Design (co-sponsored with Industrial SIG), Instrumentation: Sources, Optics and Instrumentation: Detectors (two separate sessions co-sponsored with Synchrotron SIG), Refinement: Computational (co-sponsored with Young Scientists SIG), Diagnostics During Data Collection (co-sponsored with Synchrotron SIG), and Membranes and Associated Proteins (co-sponsored with Synchrotron and Small Angle Scattering SIGs). In addition, we co-sponsored a “Twinning” workshop with the Industrial SIG

John Horton, Mark Wilson, and Edward Collins chose Alaji Bah (Washington Univ. School of Medicine) as the BioMac SIG Etter Student speaker for his work on engineering a protease into an allosteric switch. He will give his talk during the Structural Enzymology session. The Structural Enzymology session was very successful this year with > 60 abstracts submitted (more than any other ACA session!) and was expanded into a morning AND afternoon session. All BioMac-related session chairs have all done a superb job organizing this year's sessions, identifying excellent speakers and, some, in this soft economy, were still able to obtain some financial support. Thus far, all of our SIG's sessions have been very well attended.

The SIG leaders still have a concern 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 in the past two years, the SIG raised money (this year led by our Secretary, Mark Wilson) to provide lunch for the BioMac planning meeting. Unfortunately, because of scheduling conflicts, we needed to reschedule and postpone our SIG meeting until after the afternoon sessions the same day. Even though snacks and drinks were still offered, this appears to have decreased attendance at the planning meeting compared to that of the last few years

The present BioMac SIG chair (John Horton) would like to thank all the session chairs that contributed so much to the success of the 2009 Toronto meeting. Newly elected Secretary/treasurer, Mark Wilson, has done a superb job at the beginning of his tenure (2009-2010) being supportive of the Chair and Chair-elect; he is willing to do whatever is needed to make BioMac a successful SIG, and the 2009 and 2010 meetings a success. We will be looking for nominations for the 2010 chair-elect from SIG members during the coming months.

Planning for the 2009 ACA meeting. Planning for the 2010 ACA meeting is well underway and being ably led by Edward Collins and Mark Wilson. Even though we had a small group at our BioMac SIG planning meeting, they were vocal in their wants and concerns; we were still able to have a very productive SIG planning meeting to develop various possibilities for sessions that we would like to sponsor for the Chicago meeting. The outcome of this meeting was a list of 10 session topics that we would like to sponsor:

Structural Enzymology

Exciting Structures

Computational: Software Integration and Databases(co-sponsored with Young Scientists SIG)

Protein Expression, Purification, Crystallization (How did get a good diffracting xtal?)

Long Wavelength Phasing

Radiation Damage (Limit, misinterpretation)(w/Synchrotron SIG)

Macromolecular Complexes and Assemblies

Disease(Pathologic Organisms)-Related Session (w/Industrial SIG)

Molecular Motors

Transactions: In Memory of Bob Bau (In particular, our members are interested in determination/visuallization of hydrogen atoms in crystallography)

We believe this number of sessions will increase in our further discussions with other SIGs. To complement the “Long Wavelength Phasing session, we propose there be an accompanying workshop (sponsored with the Synchrotron SIG) that could be orgainized by B.C. Wang (UGA), John Rose (UGA), and Manfred Weiss (EMBO-Hamburg). There was support for the continuation of plenary lectures from senior people who had made substantial contributions during their career at next year’s meeting. Finally, there were several concerns “fleshed” out about future ACA meetings in general. One is that poster presenters should be instructed to include more crystallographic information in their posters. Another is that, in light of the present “soft” economy, could not the ACA agreement with the Sheraton hotels be renegotiated to allow “free internet” and lower room rates? Several BioMac SIG members noted that lower room rates could be had at the Sheraton on several well-known hotel and travel-oriented websites than those offered to ACA members.