

2008 ACA Industrial SIG Report

ACA Council

6/3/2008

Activities for 2008 focused on two key issues: 1) the now-completed sessions for the current Knoxville ACA and 2) broader membership participation.

The two sessions sponsored / co-sponsored by the Industrial SIG at the Knoxville ACA were well received. Session 13.03, Structural Biology in Neurological Disorders, co-chaired by Gergely Tóth of Elan Pharmaceuticals and Ruslan Sanishvili of APS presented several structures related to neurological function. This popular disease-based theme (Appendix II) is slated to continue as one of the BioMac sessions (Antibodies by Wilson / Kwong) and should be considered for joint sponsorship again in 2010. Session 04.01, Challenges in Industrial Crystallography, co-chaired by Tim Rydel of Monsanto and Jeff Bell of Schrödinger covered several crystallographic problems as well as the application of crystallography to industrial problems. The strength of this session continued to be its diversity (it included small, molecule, power, and macromolecular crystallography and covered catalyst and fuel-cell development, cement characterization, and drug discovery). For the first time, it also included a talk by a non-PhD scientist. The round table at the end of the session fielded several questions about careers in industry by young scientists.

Because of its popularity in the 2007 and 2008 Industrial SIG sessions (Appendix I) and interest in the BioMac SIG, a half-day co-sponsored session dedicated to fragment-based screening will be proposed for 2009. Discussion at the Industrial SIG meeting revolved around new technologies and methodologies to improve throughput, efficiency, and the communication of structural results. Presentations that describe the technology and how it was successfully applied to projects are envisioned (similar to the way the 2008 talks described how crystallographic challenges were overcome to advance projects). A half-day session on the application of new technologies will be proposed for 2009.

The Industrial SIG is now in its fifth year of existence. At least in terms of registered members with valid email addresses, its membership continued to grow (up 30% in the past year from 179 to 235). However, despite the popularity of the above sessions and increased membership, a larger base of active members is needed to ensure long-term vitality. This year was particularly problematic because three other SIGs were scheduled / rescheduled to hold their meeting at the same time as the Industrial SIG. Also, perhaps we could learn from our BCA counterparts. Tim Rydel and Jeff Bell accepted nominations for Chair and Secretary, respectively.

Respectfully,

Herb Klei Sue Byram

Chair Secretary

Appendix I
Sessions Sponsored by the ACA Industrial SIG

2005 – Orlando (Kissinger and Parris)
High-throughput Crystallization and Visualization

2006 – Honolulu (Klei and Fitzgerald)
Structural Biology in Industry

2007 – Salt Lake City (Ohren and Bott)
Impact of Crystallography in Industry

2008 – Knoxville (Rydel and Bell)
Challenges in Industrial Crystallography

2009 – Toronto (TBD)
Application of New Technologies / Methodologies in Industry

Appendix II
Sessions Co-sponsored by the ACA Industrial SIG

2006 – Hawaii (Swainson)
PDF Analysis of Industrial Relevant Materials / Materials / Powder

2007 – Salt Lake City (Jardetsky and Mathews)
Structural Mechanisms of Infectious Disease / BioMac

2008 – Knoxville (Sanishvili and Tóth)
Structural Biology in Neurological Disorders / BioMac

2009 – Toronto (TBD)
Development and Application of Fragment-based Screening / BioMac