

36th Mid-Atlantic Macromolecular Crystallography Meeting

This year's meeting, held on the Reynolda Campus of Wake Forest University in Winston-Salem, North Carolina, took place June 1-3. The meeting was organized by *Al Claiborne - seen on the left with Joshua Warren on the right* (Duke) of the WFU



Center for Structural Biology, with special assistance from *Conn Mallett* (Rigaku), and with help from *Tom Hollis, Todd Lowther,* and *Bernie Brown* of WFU. The keynote session focused on the topic of supramolecular assemblies and included talks by *Tomitake Tsukihara - on the left* (Osaka University) and *Jack Johnson - on the right* (Scripps); Tsuki and Jack were associated



with Michael Rossmann's lab in the late 1970s and coauthored the seminal 1980 publication in *Nature* on the crystal structure of southern bean mosaic virus.



Carla Mattos, Lorena Beese, and Traci Hall pay close attention to the speakers.

Tsuki updated the audience of ~185 participants with new crystallographic implications from his lab for the proton pumping

mechanism of cytochrome c oxidase, while Jack spoke on the combination of crystallography and cryo-electron microscopy approaches to the analysis of virus particle maturation. After the keynote talks, participants enjoyed a lively reception with wine and beer, followed by a buffet dinner.



On June 2, *Matt Redinbo* (UNC-Chapel Hill) - *seen on the right above with Charles Pemble on the left* (Wake Forest) chaired

the first scientific session, which included talks by *Kevin Madauss* (Glaxo-SmithKline) and *Stephen Soisson - to the right* (Merck Research Laboratories) on progesterone receptor complexes with Asoprisnil and corepressor peptides and on novel antibiotics targeting bacterial fatty acid biosynthesis, respectively. *Tom Hollis*



(Wake Forest Univ.) chaired a session on DNA repair enzymes and protein-nucleic acid interactions that featured talks by *Brandt Eichman* (Vanderbilt) and *Clara Kielkopf* (Johns Hopkins) on 3-methyladenine DNA glycosylase I and the pre-mRNA splicing factor U2AF65, respectively.



Zbigniew Dauter and Zygmunt Derewenda looking forward to the next speaker.

Among the 23 commercial vendors participating in the meeting, Wyatt Technology, Qiagen, and Formulatrix presented their newest technologies related to protein crystallization. The poster session featured ~50 presentations and was well attended. The social highlight of the meeting included a catered dinner in downtown Winston-Salem, with music provided by Cle Thompson, as

well as a visit to the First Friday Gallery Hop in the Downtown Arts District.

On the last half-day of the meeting, WFU graduate student **Jamie Wallen** (Al Claiborne lab) spoke on the structures of NADH and NADPH complexes of the anthrax coenzyme A-disulfide reductase and a novel dual substrate specificity mechanism, while WFU postdocs **Thomas Jönsson** (Todd Lowther lab) and **Nathan Nicely** (Claiborne lab) spoke on the interaction between sulfiredoxin and its target peroxiredoxin sulfinic acid substrate and on the novel anthrax type III pantothenate kinase, CoaX, respectively. **David Shultis**, a graduate student with Michael Wiener at Virginia, gave a great talk on the new structure for the BtuB-TonB complex involved in cobalamin transport across the bacterial outer membrane, and **Michael Purdy** (Virginia) spoke on the application of F_{ab} fragments to structure determinations with integral membrane protein-monoclonal antibody complexes.

Five years ago there was no protein crystallography facility at Wake Forest Univ., and the 2003 Mid-Atlantic Meeting held at Duke represented the first appearance by WFU structural biologists in this longstanding series of outstanding conferences. The 36th annual Mid-Atlantic Meeting introduced the established "East Coast" crystallography community to the newer Wake Forest University research setting and provided a great venue for a highly interactive and enthusiastic group of both young and

established macromolecular crystallographers. Michael Wiener will organize the next meeting at the University of Virginia in Charlottesville from June 7-9, 2007.



Bob Kretsinger - one of the Mid-Atlantic pioneers remembering when the group was small enough to have the conference dinner in his back yard in Charlottesville and thinking barbecue next year?

Al Claiborne