Program Schedule

Wednesday, June 7, 2006

5:30 p.m. - 7:00 p.m.
Registration (Life Sciences Building, Berg Auditorium Foyer)

6:15 p.m. – 7:45 p.m.
Reception (Life Sciences Building, Berg Auditorium Foyer)

8:00 p.m. – 8:15 p.m.
Opening Remarks Squire J. Booker, Ph.D. (Penn State)
J. Martin Bollinger, Jr., Ph.D. (Penn State)

8:15 p.m. – 9:00 pm
Evening Lecture (Life Sciences Building, Berg Auditorium)
Edward Solomon, Ph.D. (Stanford)
"Structure/function correlations over non-heme iron enzymes"

Thursday, June 8, 2006

7:30 a.m. – 9:30 a.m.
Registration (for those not yet registered)
(Life Sciences Building, Berg Auditorium Foyer)
Session I Microbial Systems
8:30 a.m. - noon (Berg Auditorium)
Chair: Juliette Lecomte, Ph.D. (Penn State)

8:30 a.m. – 9:15 a.m.
John H. Golbeck, Ph.D. (Penn State)
"Regulation of iron-sulfur cluster biosynthesis in Cyanobacteria"

9:15 a.m. – 10:00 a.m.
Donald Bryant, Ph.D. (Penn State)
"Adventures in Genomics: the clarifying light of comparative genomics illuminates pigment biosynthesis in green bacteria"

Industrial Exhibits
10:00 a.m. - 3:00 p.m.
(Life Sciences Building, Verne M. Willaman Gateway)

10:00 a.m. – 10:30 a.m.
Morning Break

10:30 a.m. – 11:15 a.m.
Christopher T. Walsh, Ph.D. (Harvard Medical School)
"Enzymatic halogenation catalysts"

11:15 a.m. – 12:00 noon
Rolf Thauer, Ph.D. (Max Planck Institute)
"The active site of hydrogenases"

12:00 noon – 2:00 p.m.
Lunch Break
Session II
Complex Cofactors and Novel Reactivity
2:00 p.m. - 5:30 p.m. (Berg Auditorium)
Chair: Carsten Krebs, Ph.D. (Penn State)

2:00 p.m. – 2:45 p.m.
Judith Burstyn, Ph.D. (University of Wisconsin)
"The unusual heme of cystathionine beta-synthase"

2:45 p.m. – 3:30 p.m.
David M. Dooley, Ph.D. (Montana State University)
"Beyond the ligands: the role of the second coordination shell in modulating the electronic structure and reactivity of copper sites in proteins."

3:30 p.m. – 4:00 p.m.
Afternoon Break

4:00 p.m. – 4:45 p.m.
Paul Lindahl, Ph.D. (Texas A&M University)
"Acetyl-CoA Synthase/Carbon Monoxide Dehydrogenase: bifunctional Ni-Fe-S-containing enzyme with an organometallic reaction mechanism"

4:45 p.m. – 5:30 p.m.
Perry A. Frey, Ph.D. (University of Wisconsin) "The mechanism of reductive cleavage of S-adenosylmethionine to initiate a radical reaction: the case of lysine 2,3-aminomutase"

5:30 p.m. – 7:30 p.m.
Program Break

7:30 p.m. – 9:00 p.m.
Evening Lecture (Berg Auditorium)
Lance Seefeldt, Ph.D. (Utah State University)
"Intermediates along the nitrogenase reaction pathway"
Friday, June 9, 2006

Session III
Metalloprotein Synthesis
8:30 a.m. - Noon (Berg Auditorium)
Chair: Ann Valentine, Ph.D. (Yale University)

8:30 a.m. – 9:15 a.m.
August Böck, Ph.D. (University of Munich)
"The active-site metal centre of [NiFe]-hydrogenases: Synthesis and assembly"

9:15 a.m. – 10:00 a.m.
Dennis Winge, Ph.D. (University of Utah)
"Role of Sco1/Sco2 in the assembly of the CuA site in cytochrome oxidase"

10:00 a.m. – 10:30 a.m. Morning Break

10:30 a.m. – 11:15 a.m.
Amy Rosenzweig, Ph.D. (Northwestern University)
"Copper trafficking in a hyperthermophile"

11:15 a.m. – 12:00 noon
Dennis Thiele, Ph.D. (Duke University Medical Center)
"Transporting copper across membranes in yeast and mammals"

12:00 noon – 2:00 p.m.
Lunch Break

Session IV
Oxygen Activation
2:00 p.m. – 5:30 p.m. (Berg Auditorium)
Chair: Michael Green, Ph.D. (Penn State)
2:00 p.m. – 2:45 p.m.

S. Ramaswamy, Ph.D. (University of Iowa)
"Risky business of Rieske Oxygenases"

2:45 p.m. – 3:30 p.m.

Anne-Frances Miller, Ph.D. (University of Kentucky)
"How proteins control electrons: Protons"

3:30 p.m. – 4:00 p.m. Afternoon Break

4:00 p.m. – 4:45 p.m.

J. Martin Bollinger, Jr., Ph.D. (Penn State)
"Oxygen activation by a mixed-valent diiron cluster and C-H cleavage by an iron-superoxide intermediate in the glycol cleavage reaction catalyzed by myo-inositol oxygenase"

4:45 p.m. – 5:30 p.m.

John Lipscomb, Ph.D. (University of Minnesota)
"Substrate binding, electron transfer, and O2 activation in Rieske dioxygenases: Three sides of the same coin"

5:30 p.m. – 7:30 p.m.

Program Break

Poster Presentations
7:30 p.m. – 10:00 p.m. (Verne M. Willaman Gateway)

Concurrent Poster Reception
7:30 p.m. – 10:00 p.m. (Verne M. Willaman Gateway)
Session V
Methods in Metalloenzymology
8:30 p.m. - Noon (Berg Auditorium)
Chair: Carsten Krebs, Ph.D. (Penn State)

8:30 a.m. – 9:15 a.m
JoAnne Stubbe, Ph.D. (MIT)
"Ribonucleotide reductases: something for everyone"

9:15 a.m. – 10:00 a.m.
George H. Reed, Ph.D. (University of Wisconsin)
"Spectroscopic characterization of radical
intermediates in enzymic reactions"

10:00 a.m. – 10:30 a.m.
Morning Break

10:30 a.m. – 11:15 a.m.
Vincent Huynh, Ph.D. (Emory University)
"Site-specific chemistry at a unique Fe site of the Fe4S4 cluster in
ferredoxin: thioredoxin reductase"

11:15 a.m. – 12:00 p.m.
Sean J. Elliot (Boston University)
"Electrochemical Enzymology: probing dynamics
and mechanism at an electrode"

12:00 - noon
Symposium Closing Remarks