

The annual meeting of SFBM

ENZYME CATALYSIS

19-20 October 2006 ♦ BMC, Uppsala

SESSIONS

Thursday 19th October

Session 1: Catalysis and the evolution of enzymes

- 13.10-13.50 *Computer simulations as a powerful tool for probing the origin of enzyme catalysis*
Arieh Warshel, University of Southern California
- 13.50-14.20 *Catalysis and evolution of epoxide hydrolases*
Sherry Mowbray, Swedish University of Agricultural Sciences
- 14.20-14.50 *Optimization of differential substrate selectivities of glutathione transferases by evolution*
Bengt Mannervik, Uppsala University

Session 2: Design of catalysts and enzymes

- 15.20-16.00 *Directed evolution of selective enzymes*
Manfred Reetz, Max Planck Institute for Coal Research
- 16.00-16.30 *From natural to artificial photosynthesis -
Biomimetic chemistry based on principles from photosystem II and hydrogenases*
Stenbjörn Styring, Uppsala University
- 16.30-17.00 *Redesign of enzymes for applied biocatalysis - lipases*
Karl Hult, Royal Institute of Technology

SFBM Session

- 17.20-18.00 The Svedberg lecture
Actin in gene transcription
Piergiorgio Percipalle, Karolinska Institute
- 18.00-18.30 Annual proceedings of SFBM
- 19.00- Conference dinner

Friday 20th October

Session 3: Ribosome and ribozyme catalysis - mechanisms and kinetics

- 09.00-09.40 *LepA, one of the most conserved proteins on this planet, is a new ribosomal elongation factor*
Knud Nierhaus, Max Planck Institute for Molecular Genetics
- 09.40-10.05 *Bacterial translation initiation - A new role of an old player*
Suparna Sanyal, Uppsala University
- 10.05-10.30 *Ribozyme catalysis - Structure and function of a new ribozyme involved in mRNA capping*
Steinar Johansen, Tromsø University

Session 4: The enzymology of electron transfer

- 11.00-11.40 *Complexes I and IV of the respiratory chain*
Mårten Wikström, University of Helsinki
- 11.40-12.10 *The proton-pumping machinery of cytochrome C oxidase*
Peter Brzezinski, Stockholm University
- 12.10-12.40 *Ribonucleotide reductases - a radical twist to catalysis*
Britt-Marie Sjöberg, Stockholm University

Poster session and lunch**Session 5: Applications and emerging concepts**

- 14.30-14.55 *Deoxyribonucleoside kinases - Diversity, catalytic properties and applied aspects*
Jure Piskur, Lund University
- 14.55-15.20 *Kinetic mechanism of deoxyadenosine kinase from Mycoplasma determined by surface plasmon resonance technology*
Ewa Pol, Biacore AB, Uppsala
- 15.20-15.45 *Mechanisms of regioselective catalysis in GMC oxidoreductases in lignocellulose degradation*
Christina Divne, Royal Institute of Technology
- 15.45-16.00 *Pyrosequencing- an enlightening fight for nucleotides*
Nigel Tooke, Pyrosequencing AB
- 16.00-16.15 **Poster prize and closing**

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