

INPEC Program 12.6-15.6, Naantali Spa, Naantali

Thursday June 12th.

Arrival and registration; Naantali spa open
Get-together at Naantali Spa Sunborn Yacht 18-21

Friday June 13th.

Breakfast 7-8.30. Naantali Spa open

WELCOME! 08.30 ADRIAN GOLDMAN

I. DIRECTED EVOLUTION AND PROTEIN DESIGN I 8.45-10.15 (REIJO LAHTI CHAIR)

Reinhard Sterner: Evolution and design of enzymes from amino acid biosynthesis
Seung-Goo Lee Design and application of fluorescent protein sensors for the quantitative detection of target sugars
Bengt Mannervik Delivery of novel enzymes by directed evolution in multidimensional substrate-activity space

Coffee at the posters and exhibition area 10.15-10.45

II. DIRECTED EVOLUTION AND PROTEIN DESIGN II 10.45-11.45 (ADRIAN GOLDMAN, CHAIR)

Andreas Plückthun The taming of the shrew: Improving GPCR expression and stability
Markku Kulomaa Evolutionary approaches in engineering and design of brave new avidins

Lunch 11.45.-12.45

III. PROTEIN ENGINEERING FOR BIOMEDICINE 13.00-15.00 (SARAH BUTCHER, CHAIR)

Robin Anders A malarial vaccine candidate and its amyloid-forming properties
Richard Garrett Attempts to use protein structure in aiding vaccine design for tropical diseases
Rick Rink Biosynthetic incorporation of thioether bridges for the stabilization of therapeutic peptides and proteins
Mick Foley Peptides and shark antibodies as potential therapeutics

Coffee at the posters and exhibition area 15.00-16.30. Authors on all posters

IV. PROTEINS IN INDUSTRIAL APPLICATIONS; BIOCATALYSTS AND NANOTECHNOLOGY 16.30-18.30.
(MARKUS LINDER, CHAIR)

Peter Neubauer	High throughput expression of correctly folded recombinant proteins - possibilities - tools- challenges
Allan Svendsen	Discovery and engineering of enzymes for biocatalysis reactions
Thomas Haertle	Engineering of beta caséin
Vincent Eijsink	Towards new enzymes for biofuel: lessons from chitinase research

19:00-23.00 Cruise to the archipelago around Turku and Naantali. Dinner on board

Saturday June 14th.

Breakfast 7-8.30. Naantali Spa open

V. TOOLS AND TECHNOLOGY – COMPLEMENTARY METHODS IN PROTEIN SCIENCE 08.30-10.30
(HIDEO IWAI, CHAIR)

Ole Jensen	Functional and structural proteomics by using mass spectrometry
Ichio Shimada	NMR approach for interaction analyses of larger proteins
Song Jianxing	NMR Evidence for Forming Highly-populated Helical States in a Partially-folded hNck2 SH3 Domain
Joel Sussman	Intuitive Structural Biology: Proteopedia - Because Life Has More Than Two Dimensions

Lunch 11.00-12.00

VI. BINDING AND CATALYSIS 12.00-14.00 (MARKKU KULOMAA, CHAIR)

Antti Poso	Revealing mechanism of ligand induced CAR activation/inactivation
Human Rezaie.	Conformational dynamics and oligomerization pathways of prion protein investigated by rational mutagenesis
Phil Bryan	Engineering subtilisin into a high-specificity protease whose activity is tightly regulated by a co-factor
Pinak Chakrabarti	Protein-protein interactions – structural features and empirical estimation of free energy of binding

Coffee at posters, exhibition area 14.00-14.30.

VII. STRUCTURE AND MECHANISM 14.30-16.30 (PIRKKO HEIKINHEIMO, CHAIR)

Rik Wierenga	Structural enzymological studies of dimeric and monomeric variants of triosephosphate isomerase
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Andy Wang	Structure, assembly and mechanism of a PLP-dependent dodecameric aspartate beta-decarboxylase
Kosuke Morikawa	Structural view of PPAR γ activating process by endogenous ligand
Mirek Cygler	The structure of bacterial O-antigen co-polymerases: one motif, many ways to oligomerize

Coffee at Posters, exhibition area 16.30-17.30. Authors on all posters

INPEC Business meeting 16.30-17.30

Naantali spa open

19.00 Guided walk at the sea side and old Naantali and conference dinner Ravintola Paviljonki, Naantali spa.

Sunday June 15th.

Breakfast 7-8.30. Naantali Spa open

VIII. MEMBRANE SYSTEMS 09:00-11:15 (RIK WIERENGA, CHAIR)

Gunnar von Hejne	Engineering dual-topology membrane proteins
Adrian Goldman	The blind men and the elephant: studies of UGTases
Sarah Butcher	A structure-based approach to studying enveloped virus evolution
Mårten Wikström	The respiratory enzyme - a molecular machine

Closing remarks: Rik Wierenga

12:00 Bus departure for Helsinki: