

Preliminary program of ISGSB-2010

September 6th, 2010

17.30	Welcome lecture
18.30	Welcome dinner

September 7th, 2010

9.20	Section 1 Fundamental problems of System Biology <i>Chairman D.A. Fell</i>
9.50-10.10	Jeroen Jeneson SubSystems Biology? the boundary issue in experimental and computational models for Systems Biology research
10.10-10.30	Ahmed Alsow Mohamud The biological systems
10.30-10.50	Christian Bodenstein Temperature compensation and entrainment of circadian rhythms under small temperature shifts
10.50-11.10	<i>Coffee break</i>
11.10	Section 2 Regulation and control in metabolic networks <i>Chairman Ya. R. Nartsissov</i>
11.20-11.40	David Fell Control of flux in the mammalian TCA cycle
11.40-12.00	Sudip Kundu Reconstruction and analysis of genome scale metabolic model of rice (<i>Oryza sativa</i>)
12.00-12.20	Christine Dillmann How do nutrient resources shape the metabolic diversity within the <i>Escherichia coli</i> species?
12.20-12.40	Sascha Schauble Avoiding presumptions - generic analysis of metabolic networks
12.40-13.40	<i>Lunch</i>
13.40	Section 3 Regulation and control in metabolic networks <i>Chairman M. Poolman</i> (cont'd)
13.50-14.10	Luis Acerenza Modular analysis of metabolic control for large responses
14.10-14.30	Jan Berkhout How metabolic network design and constraints shape optimal adaptive responses
14.30-14.50	Oliver Ebenhoeh Entropic principles in carbohydrate metabolism
14.50-15.10	<i>Coffee break</i>
15.10	Section 4 System Biology and regulatory aspects of gene expression <i>Chairman J. Snoep</i>
15.20-15.40	Barbara Bakker VERTICAL GENOMICS ZOOMING INTO THE GENE-EXPRESSION CASCADE
15.40-16.00	Ekaterina Rybakova A general model for mRNA metabolism: from experiment to model and back
16.00-16.20	Alexey Kolodkin Blueprint modeling of the nuclear receptor signaling
16.20-16.40	Sabesan Muthukumaran Structure function relationships in HIV-I virus-host
18.00	<i>Dinner</i>

September 8th, 2010

9.00	Section 5 Receptors and transporters of neurotransmitters. Modeling and application. <i>Chairman J. Rohwer</i>
9.10-9.30	Beatriz Lopez-Corcuera A cation selectivity site in the neuronal glycine transporter GLYT2
9.30-9.50	Stanislav Boronovskiy Probability simulator of enzyme activity and its application to description of transmembrane currents through glycine receptor
9.50-10.10	Olga Kofanova Computer simulation of glutamate transport via EAAT 4 neuron transporter
10.10-10.30	Kirill Zaytsev Computer simulation of glycine transport in mammalian neurons
10.30-10.50	<i>Coffee break</i>
10.50	Section 6 Modeling of glycolysis and its regulation <i>Chairman B. Bakker</i>
11.00-11.20	Jacky Snoep From wine to vinegar: control analysis of a mixed microbial population
11.20-11.40	Dominique de Vienne Heterosis: an emerging property of metabolic systems
11.40-12.00	Eva Albers Studies of glycolytic flux regulation/control using permeabilised yeast cells
12.00-12.20	Karen van Eunen Integration of the metabolic and gene-expression regulation of yeast glycolysis into a kinetic computer model
12.20-12.40	Femke Mensonides SysMO-MOSES - The effect of ATP, ADP and AMP on glycolytic enzymatic rates – standardization of enzyme activity assays revisited
12.40-13.00	Justin Smith Experimental supply-demand analysis of yeast free-energy metabolism
13.00	<i>Lunch</i>
14.00	Social program

September 9th, 2010

9.00	Section 7 Virtual modeling of living systems <i>Chairman O. Ebenhoeh</i>
9.10-9.30	Mark Poolman Use of linear programming and elementary modes analysis to investigate metabolic networks
9.30-9.50	Brett Olivier Multiple Environment Stoichiometric Analysis
9.50-10.10	Ya. Nartsissov Spatial-time gradient and its modelling in virtual phantoms
10.10-10.30	Johann Rohwer Vascular transport in plants: an advection-diffusion-reaction model of sucrose accumulation in sugarcane
10.30-10.50	Meike Wortel Applying whole cell modular modeling to eukaryotes
10.50-11.10	<i>Coffee break</i>
11.10	Section 8 Experimental model as a tool for research in system biology <i>Chairman G.I. Podoprigora</i>
11.20-11.40	Vida Mildaziene Modular kinetic analysis of mitochondrial response to hyperthermic treatment
11.40-12.00	Josep Schmitz Understanding the origin of mitochondrial (dys)function; a new systems biology based research strategy
12.00-12.20	Elena Sheshegova Effect of glycine on pial brain vessels vasodilatation
12.20-12.40	Alexey Selin Mitochondria as therapeutic target of glycine in the model of ischemic stroke in vitro
12.40-13.00	<i>Coffee break</i>
13.00	Section 9 Application of system biology approach to description of ATP synthesis and anabolic processes <i>Chairman V. Mildazene</i>
13.10-13.30	Nils Christian Not all downstream metabolites are the same: Modeling of the Mevalonate pathway
13.30-13.50	Elena Mashkovtseva Mechano-probability Model of FoF1-ATPsynthase Catalytic Cycle: A Novel Approach to ATP Synthesis and Hydrolysis Description
13.50-14.10	Daniel Palm A detailed kinetic model for mammalian skeletal muscle glycogen synthase and its regulation
14.10	<i>Lunch</i>
15.10	ISGSB business meeting
16.00-18.00	Young BTK

September 10th, 2010

9.00-12.00	Young BTK
13.00	<i>Lunch</i>