PROGRAM SBMC 2010

THURSDAY, 3RD JUNE

12:30-12:50	Welcome	State Secretary Helge Braun - Federal Ministry of Education and Research
12:50-13:00	Welcome	Vice Rector Heiner Schanz - University Freiburg
13:00-13:10	Opening Speech	Jens Timmer - University Freiburg
13:10-13:30	Virtual Liver	Adriano Henney - Virtual Liver Network
KEYNOTE	Chair | Jens Timmer	
13:30-14:15	▸ Denis Noble - University of Oxford, UK	
	Principles of systems biology and their application to cells	

NEW APPROACHES Chair | Jens G. Reich

14:15-14:45	▸ Denis Thieffry - Université de la Méditerranée, France
	Diversity and plasticity of t-helper cell typesfrom regulatory network modelling
14:45 15:00	▹ William Senapedis - Harvard Medical School, USA
	A nuclear localization switchable davice reveals a regulatory network
15:00-15:30	▸ Forest M. White - Massachusetts Institute of Technology, USA
	Biological insights from quantitative analysis of receptor tyrosine kinase signaling networks
15:30-16:00	coffee break
16:00-16:30	▸ Andre Levchenko - Johns Hopkins University, USA
	Understanding the limits of Information processing in signaling pathways
	through combination of modeling and experimentation
16:30-16:45	▹ Andrius Serva – BioQuant, Germany
	Functional analysis of microRNAs as regulators of secretory membrane trafficking
16:45-17:00	▹ Jan Hasenauer – University of Stuttgart, Germany
	Single cells vs. cell populations - From a binary decision to a continuous response
17:00-17:30	▸ Martin Fussenegger - ETH Zurich, Switzerland
	Mammalian synthetic biology: from tools to therapies
18:00	Excursion by historic train to a vineyard in the Kaiserstuhl region
23:00	First shuttle bus back to Freiburg
00:00	Last shuttle bus back to Freiburg

FRIDAY, 4TH JUNE

SIGNALING Chair | Ursula Klingmüller

09:00-09:30	▸ H. Steven Wiley - Pacific Northwest National Laboratory, USA
	Reconstructing Signaling Networks by Integrating Quantitative Proteomic and Genomic Data
09:30-09:45	▹ Joseph X. Zhou – Technical University Dresden, Germany
	Predicting pancreas cell fate decisions and reprogramming with a hierarchical multi-attractor model
09:45-10:15	▸ Jason M. Haugh - North Carolina State University, USA
	Dynamic Regulation of Growth Factor Receptor Signaling Networks
10:15-10:30	▹ Tilo Beyer – Otto-von-Guericke University, Germany
	Integrating signals from T-cell receptors and the Interleukin-2 receptor
10:30-11:00	▸ Michael Yaffe - Massachusetts Institute of Technology, USA
	Systems Biology of the DNA Damage Response: Implications for Rational
	Design of Cancer Therapy
11:00-11:30	coffee break
11:30-11:45	▹ Pernette J. Verschure - University of Amsterdam, The Netherlands
	Epigenetic gene regulation of the eukaryotic genome: Systems Biology approaches using synthetic cell systems
11:45-12:15	▸ Michael White - University of Liverpool, UK
	Spatial and temporal information encoding by the NF-κB
12:15-12:30	▹ Verena Becker – German Cancer Research Center (DKFZ), Germany
	Covering a broad dynamic range - information processing at the Erythropoietin receptor level
12:30-13:00	▸ Carsten Carlberg - Université du Luxembourg, Luxembourg
	Systems Biology of Nuclear Receptors: The Impact of Transcriptional Cycling
13:00-14:00	lunch

FRIDAY, 4TH JUNE

MTZ Chair | Jens Timmer

14:00-14:05	Introduction Monika and Thomas Zimmermann, Germany
14:05-14:20	▸ Stefan Legewie - German Cancer Research Center (DKFZ), Germany
	Transcription Feedback Regulation of Signal Transduction
14:20-14:35	▸ Thomas Maiwald - Harvard Medical School, USA
	Dynamical Modeling of Biological Systems
14:35-14:50	▸ Edda G. Schulz - Institut Curie, Paris, France
	Two positive feedback loops control effector function and memory
	induction in type 1 T-helper lymphocytes
14:50-15:20	coffee break
15:20-15:35	Award Ceremony M. & T. Zimmermann, S. Neumann, Germany

METABOLISM Chair | Steffen Klamt

15:35-16:05	▸ H.-G.Holzhütter - Charité - Universitätsmedizin Berlin, Germany
	Mathematical Modelling of Liver Metabolism
16:05-16:20	▹ Christian A. Tiemann - Eindhoven University of Technology, The Netherlands
	A computational model of hepatic lipid metabolism: identifying persistent behavior
16:20-16:50	▸ Damjana Rozman - University of Ljubljana, Slovenia
	The cross-talk of the hepatic cholesterol and drug metabolism transcriptome
16:50-17:05	▹ Elin Nyman - Linköping University, Sweden
	Combined top-down and bottom-up modelling provides internally consistent explanations of whole-
	body glucose homeostasis through the identification and elimination of data inconsistencies and
	missing regulations
17:05-17:35	▸ Deok-Sun Lee - Inha University, Korea
	Networking Metabolites, Diseases and Drugs
17:35-19:30	Postersession I
20:00 23:00	Conference dinner at Schlossbergrestaurant Dattler

SATURDAY, 5TH JUNE

BIOMEDICINE Chair | Ulrich Zanger

09:00-09:30	▸ Walter Kolch - University College Dublin, Ireland
	Systems properties of the ERK pathway as negative feedback amplifier
09:30-09:45	▹ Niels Grabe - BioQuant, Germany
	Quantification of Cell Streams in Epidermal Wound Healing using a 3D in vitro Culture
	Model of Human Skin and whole-slide imaging
09:45-10:00	▹ Nils Blüthgen – Charité – Universitätsmedzin Berlin, Germany
	How do cancer cells escape from targeted intervention?
10:00-10:30	▸ Ritsert C. Jansen - University of Groningen, The Netherlands
	The Road Ahead to Systems Genetics
10:30-11:00	coffee break

WHOLE BODY Chair | H.-G. Holzhütter

11:00-11:30	▸ Claudio Cobelli - University of Padova, Italy
	Minimal and Maximal Models of Glucose Metabolism in Health and Diabetes
11:30-11:45	▹ Stefan Hoehme - University of Leipzig, Germany
	Cell alignment along microvessels as order principle to restore tissue architecture during liver
	regeneration: From experiment to virtual tissues and back
11:45-12:15	▸ Jörg Lippert - Bayer Technology Services GmbH, Germany
	Applying Computational Systems Biology to Pharmaceutical R&D
12:15-12:45	▸ Jens G. Reich - MDC Berlin, Germany
	Iron Regulation in the intact Organism - Kinetic Description of the Pathway Network
12:45-15:00	lunch & Postersession II

INDUSTRY Chair | Adriano Henney

15:00-15:30	▸ Birgit Schöberl - Merrimack Pharmaceuticals, Inc., USA
	Applying engineering principles to develop novel therapies
15:30-16:00	▸ Christopher Taylor - AstraZeneca, UK
	Applying Systems Biology in Drug Discovery
16:00-16:30	▸ Richard Ho - Entelos, Inc., USA
	DILI –sim: A Systems Model of the Liver Allowing Perturbations
	by Xenobiotics in Multiple Species
16:30-17:00	▸ Sean Ekins - Collaborations in Chemistry, Inc., USA
	Toxicity Pathways and Models: Mining for potential off-target effects
17:00-17:15	Closing speech Jens Timmer