

SIGNALLING MEETS SYNTHETIC BIOLOGY

23rd - 25th September 2010, Freiburg im Breisgau
Foyer Chemistry Building and Round Lecture Hall, Albertstr. 19

DAY 1: Thursday, 23rd September 2010

08:00-08:45	Registration, Poster Setup (<i>Foyer Chemistry Building</i>)
08:45-09:00	Opening Remarks - Rector Hans-Jochen Schiewer, Michael Reth and Wilfried Weber (<i>Round Lecture Hall</i>)
09:00-10:30	Session 1: G-Protein and MAP Kinase Signalling
	Chair: Michael Reth (<i>University of Freiburg and Max-Planck Institute of Immunobiology</i>)
09:00	Chris Marshall (Institute of Cancer Research London) "Control of RHO-Family GTPase Activity in Cell Migration"
09:30	Walter Kolch (University College Dublin) "Signal Processing by the RAS-RAF-MEK-ERK/MAPK Pathway: What Generates Specificity?"
10:00	Tilman Brummer (University of Freiburg) "B-RAF Signalling"
10:30-11:00	COFFEE BREAK (<i>Foyer Chemistry Building</i>)
11:00-12:30	Session 2: Synthetic Signalling
	Chair: Wilfried Weber (<i>University of Freiburg</i>)
11:00	Drew Endy (Stanford University) "Engineering at the Genome Scale"
11:30	Petra Schwill (TU Dresden) "Synthetic Biology of Cell Division"
12:00	Jeff Tabor (Rice University Houston) "Light-Regulated Signaling in Bacteria"
12:30-13:30	LUNCH BREAK (<i>Foyer Chemistry Building</i>)
13:30-15:30	Session 3: SGBM Session - Organized by PhD Students of the Spemann Graduate School
	Chair: SGBM Students
13:30	Joseph Noel (Salk Institute San Diego) "The Plant Proteome as Models for the Adaptive Evolution of a Stereospecific and Catalytically Efficient Enzymes from Non-Enzymatic Ancestors over Defined Periods of Plant Evolution"
14:00	Yolanda Carrasco (Centro Nacional de Biotecnología Madrid) "Modulation of B Cell Dynamics in Response to Chemokines and Antigen Encounter"
14:30	Victor de Lorenzo (Centro Nacional de Biotecnología Madrid): "Engineering vs. Tinkering Regulators and Regulatory Networks in Environmental Bacteria"
15:00	Nancy Hynes (Friedrich Miescher Institute Basel) "Targeting Receptor Tyrosine Kinases in Breast Cancer"
15:30-16:00	COFFEE BREAK (<i>Foyer Chemistry Building</i>)
16:00-18:00	POSTER SESSION (<i>Foyer Chemistry Building</i>)
18:00-18:30	BARBARA HOBOM AWARD Ceremony (<i>Round Lecture Hall</i>)
18:30	EVENING PROGRAMME: Get-Together (<i>Foyer Chemistry Building</i>) Music: Artillerie Lourde

DAY 2: Friday, 24th September 2010	
09:30-11:00	Session 4: Synthetic Circuits Chair: Chris Meisinger (University of Freiburg) 09:30 Martin Fussenegger (ETH Zurich) "Mammalian Synthetic Biology - From Tools to Therapy" 10:00 Wilfried Weber (University of Freiburg) "Synthetic Biology in Mammalian Cells and Materials Science" 10:30 Christina Smolke (Stanford University) "Programming Cellular Behavior with RNA Controllers"
11:00-11:30	COFFEE BREAK (Foyer Chemistry Building)
11:30-13:00	Session 5: Signalling Systems Chair: Hassan Jumaa (University of Freiburg, Faculty of Biology and Max-Planck-Institute of Immunobiology) 11:30 Sara Courtneidge (Sanford-Burnham Medical Research Institute) "Regulation of Podosome and Invadopodia Formation in Human Disease" 12:00 Yinon Ben-Neriah (Hebrew University of Jerusalem) "Intricate Control of the p53 Tumor Suppressor Function in the Gut via an Inflammatory Response" 12:30 Giulio Superti-Furga (Ce-M-M-Wien) "Molecular networks in Leukemia and Innate Immunity"
13:00-14:00	LUNCH BREAK (Foyer Chemistry Building)
14:00-16:00	Session 6: Signalling Processes in Development Chair: Wolfgang Driever (University of Freiburg) 14:00 Prasad Shastri (University of Freiburg) "Defining the Microenvironment for Controlling Stem Cell Fate In vivo" 14:30 Helen Blau (Stanford University) "Designing Biomaterials to Direct Stem Cell Fate" 15:00 Noortje Kornet (University of Freiburg) "Transcriptome of the Arabidopsis Root Columella Stem Cell Niche" 15:30 Matthias Lutolf (Ecole Polytechnique Federal de Lausanne) "Artificial Niches to Manipulate Stem Cell Fate"
16:00-16:30	COFFEE BREAK (Foyer Chemistry Building)
16:30-18:30	Session 7: Immune Signalling Chair: Tilman Brummer (University of Freiburg) 16:30 Doreen Cantrell (University of Dundee) "Serine Kinases in T Lymphocytes" 17:00 Andre Veillette (Institut de Recherches Cliniques Montreal) "Regulation of Immune Cell Signalling and Functions by SAP Family Adaptors" 17:30 Wolfgang Schamel (University of Freiburg and Max-Planck-Institute of Immunobiology) "Properties of Multivalent T Cell Receptors" 18:00 Johannes Huppa (Stanford University) "Visualizing and Measuring T Cell Antigen Recognition"
18:30	POSTER AWARDS Ceremony (Round Lecture Hall)
19:30	CONFERENCE DINNER (Restaurant Zum Roten Bären)

DAY 3: Saturday, 25th September 2010

09:30-11:00	Session 8: Chair: Wolfgang Schamel <i>(University of Freiburg and Max-Planck-Institute of Immunobiology)</i> 09:30 Victor Sourjik (University of Heidelberg) "Redesigning Bacterial Chemotaxis Pathway" 10:00 Sebastian Herzog (University of Freiburg) "Regulation of Proliferation and Differentiation in pre-B Cells" 10:30 Chris Meisinger (University of Freiburg) "Signalling Pathways Regulating Mitochondrial Functions"
11:00-11:30	COFFEE BREAK (<i>Foyer Chemistry Building</i>)
11:30-12:30	Session 9: Plant Signalling Chair: Thomas Laux <i>(University of Freiburg)</i> 11:30 June Medford (Colorado State University) "A Modular Eukaryotic Synthetic Signal Transduction System for Controlling Biological Input-Output" 12:00 Klaus Palme (University of Freiburg) "Signalling Pathways Regulating Postembryonic <i>de novo</i> Organ Formation in Plants"
12:30 - 13:00	Farewell Remarks and Closing - Michael Reth