27th Annual Meeting of the German Society for Cell Biology (DGZ)
March 24 – 27, 2004, Berlin

Wednesday, March 24, 2004

12:00 Registration

14:00 Opening

14:30 Welcome: Gottfried Schatz (Head of the Swiss Science and Technology Council)
Was hemmt Europas Wissenschaft? (in German)

15:30 Carl Zeiss Lecture: Roger Tsien (UCSD, La Jolla, USA)

17:00-19:00: Symposium 1: Imaging
Chairs: Cristina Cardoso (MDC, Berlin, Germany) and Rainer Pepperkok (EMBL, Heidelberg, Germany)

17:00 Tom Misteli, (NIH, Bethesda, USA): Genome function in space and time

17:30 Thomas Jovin (MPI for Biophysical Chemistry, Göttingen, Germany): Probing receptor tyrosine kinase (erbB) dynamics in living cells with visible fluorescent proteins and Quantum dots

18:00 Ernst Stelzer (EMBL, Heidelberg, Germany): Multiple Imaging Axes Microscopes provide isotropic, three-dimensional images of embryos and other large objects

18:30 Scott E. Fraser (California Institute of Technology, Pasadena, USA): Imaging the cell movements and signals that pattern the developing embryo with light and MRI microscopies

19:00: Informal Get-Together

Thursday, March 25, 2004

9:00-12:00 Symposium 2: Signal Transduction
Chairs: Walter Birchmeier (MDC Berlin) and Anne Ridley (Ludwig Institute for Cancer Research, London, UK)

9:00 Introduction

9:15 Nancy Hynes (Friedrich Miescher Institute, Basel, Switzerland): The ErbB family of receptor tyrosine kinases and tumor cell migration

9:45 Xi He (Children's Hospital, Harvard Medical School, Boston, USA): Understanding Wnt signaling in development and disease

10:15 Ernst Hafen (University of Zurich, Switzerland): Insulin signaling and growth control in Drosophila

10:45 coffee break

11:00 Claus Scheidereit (MDC Berlin): Signaling networks of IKK and NF-kappaB in oncogenesis and innate immunity

11:30 Rik Derynck (University of California, San Francisco, USA): Transforming growth factor-beta signaling and mesenchymal cell differentiation

12:00-15:00: Poster Session
Imaging, Signal Transduction, Cytoskeletal Dynamics, Neuronal Development, Hematopoiesis, Nucleolus, Late Abstracts

15:00-17:45: Minisymposia

Minisymposium 1: Cytoskeletal Dynamics
Chairs: Jürgen Wehland (GBF Braunschweig, Germany) and Giorgio Scita (European Institute of Oncology, Milano, Italy)

15:00 Introduction

15:15 Anne Ridley (Ludwig Institute for Cancer Research, London, UK): Signalling by Rho GTPases in cell motility

15:45 Giorgio Scita (European Institute of Oncology, Milano, Italy): Up and down GTPases: Signaling mechanisms regulating receptor tyrosine kinases-dependent actin-based motility

16:15 Theresia Stradal (GBF Braunschweig, Germany): Protein complexes regulating lamellipodia protrusion

16:30 coffee break

16†:45 Philippe Chavrier (Institute Curie, Paris, France): ARF proteins at the crossroads of actin dynamics and membrane trafficking

17:15 Michael Kessels (Leibniz Institute for Neurobiology, Magdeburg, Germany): Actin polymerisation involving the Arp2/3 complex and its activator N-WASP in endocytic vesicle formation

17:30 Jan Faix (A. Butenandt-Institute, LMU Munich, Germany): Formins as Regulators of Microfilament Dynamics and Cell Motility in Dictyostelium cells

Minisymposium 2: Neuronal Development
Chair: Carmen Birchmeier (MDC Berlin)

15:00 Introduction

15:15 Darren Gilmour (MPI for Developmental Biology, Tübingen, Germany): A hierarchy of guidance cues coordinates the migration of sensory neurons in the zebrafish

15:45 Martyn Goulding (The Salk Institute, La Jolla, USA): The walking mouse: using genetics to understand how the circuits controlling locomotion are organized

16:15 Edgar Pera (Institute of Biochemistry, Göttingen, Germany): Cross-talk of IGF, FGF and BMP signaling at the level of Smad1 phosphorylation in neural induction

16:30 coffee break

16:45 Fritz Rathjen (MDC Berlin, Germany): The role of neural activity in the formation of synapses

17:15 Irina Majoul (University of Cambridge, UK): Drebrin links connexin-43 gap junctions to the submembrane cytoskeleton and down-regulates its internalisation and degradation

17:45 Ute Schaeper (MDC Berlin, Germany): Analysis of Gab1 signalling functions in vivo by gene knock-in approach

Minisymposium 3: Hematopoiesis
Chairs: Achim Leutz (MDC Berlin, Germany) and Thomas Graf (Albert Einstein College, New York)

15:00 Introduction

15:15 Thomas Graf (Albert Einstein College, New York): Rapid reprogramming of B cells into macrophages by C/EBPa and b

15:45 Elaine Dzierzak (Erasmus University Rotterdam, Rotterdam, The Netherlands): AGM Hematopoietic Stem cells: Microenvironment and Molecules

16:15 Hendrik Fuchs (Charité Berlin, Germany): Evidence supporting ADAM-10 to be the likely Metalloprotease Involved in Transferrin Receptor Shedding

16:30 coffee break

16:45 Hans-Reimer Rodewald (University of Ulm, Germany): High resolution map of bone marrow hematopoiesis

17:15 Marina Scheller (MDC Berlin, Germany): Active beta-catenin blocks differentiation and promotes proliferation of pluripotent hematopoietic cells

Minisymposium 4: New insights into the functional roles of the nucleolus
Chairs: I. Raska (Charles University, Prague, Czech Republic) and Marion Schmidt-Zachmann (DKFZ, Heidelberg, Germany)

15:00 Introduction

15:15 Yun Lam (Wellcome Trust Biocentre, University of Dundee, UK): Proteomic studies on the nucleolus

15:45 Herbert Tschochner (Universität Regensburg, Germany): Multifunctional Noc-Proteins: theme with variations in ribosome biogenesis

16:15 Anna v. Mikecz (Heinrich-Heine University, Düsseldorf, Germany): The nucleolus: a proteasome-free zone

16:30 coffee break

16:45 Nobuaki Kikyo (Stem Cell Institute, University of Minnesota, Minneapolis, USA): Reversible disassembly of the somatic nucleoli by the germ cell proteins FRGY2a and FRGY2b

17:15 Jens Eilbracht (DKFZ, Heidelberg, Germany): NO66 - a highly conserved dual location protein in the nucleolus and in a special type of synchronously replicating chromatin

18:00: Award presentations

19:00: Tutorials

Friday, March 26, 2004

9:00-12:00: Symposium 3: Nuclear architecture and Chromatin Remodelling
Chairs: Harald Herrmann (DKFZ, Heidelberg, Germany) and Thomas Jenuwein (IMP, Vienna Biocenter, Vienna, Austria)

9:00 Introduction

9:15 Robert D. Goldman (Northwestern University, Chicago, USA): The Nuclear Lamins: Essential components of Nuclear Structure and Functions

9:45 Roland Foisner (Vienna Biocenter, Vienna, Austria): Dynamics of nuclear lamina - chromatin interactions during the cell cycle

10:15 Thomas Jenuwein (Vienna Biocenter, Vienna, Austria): The indexing potential of histone lysine methylation

10:45 coffee break

11:00 Ueli Laemmli (University of Geneva, Switzerland): Structural glimpses of chromosomes

11:30 Robert Martienssen (Cold Spring Harbour Laboratory, New York, USA): Transposons, small interfering RNA and the origin of heterochromatin

12:00-15:00: Poster Session
Nuclear Architecture, Stem Cells, Drosophila, GPCR, Microtubuli, Cell Cycle, Vesicular Trafficking, Proteomics, Other Abstracts

15:00-17:45: Minisymposia

Minisymposium 5: Stem Cells
Chairs: Anna Wobus (Institute of Plant Genetics and Crop Plant Research, Gatersleben) and Albrecht Müller (Universität Würzburg, Germany)

15:00 Introduction

15:15 Robert Passier (Netherlands Institute for Developmental Biology, Utrecht, The Netherlands): Cardiomyocyte differentiation from human embryonic stem cells

15:45 Karl Fernandes (The Hospital for Sick Children, Toronto, Canada): Neural differentiation from Skin-derived Precursors (SKPs): hair follicles are a niche for multipotent cells derived from the neural crest

16:15 Przemyslaw Blyszczuk (IPK Gatersleben, Germany): Generation of functional beta-like cellsfrom embryonic stem cells in vitro via pancreatic progenitor cells expressing nestin

16:30 coffee break

16:45 Albrecht Müller (University of Würzburg, Germany): Enhancing the developmental potentials of somatic stem cells by epigenetic modification

17:15 Andreas Hecht (University of Freiburg, Germany): Wnt/beta-catenin signaling in neural stem cells

17:30 Ulf Gurok (Max-Planck-Institute for Molecular Genetics, Berlin, Germany): Gene expression changes in the course of neural progenitor cell differentiation

Minisymposium 6: Drosophila as a Model Organism for Cell Signaling
Chair: Renato Paro (ZMBH, Heidelberg, Germany)

15:00 Introduction

15:15 Sarah Bray (Cambridge University, Cambridge, UK): Regulation of Notch signalling

15:45 Marek Mlodzik (Mt. Sinai Medical School, NY): The Frizzled / planar cell polarity signaling pathway: signalling specificity and regulation

16:15 Anne Holz (Justus Liebig University Giessen, Germany): Myoblast determination in the visceral and somatic mesoderm of Drosophila depends on milliways / Alk as receptor for Jeb signaling

16:30 coffee break

16:45 Markus Affolter (Biozentrum, Universität Basel, Switzerland): Simple silencer elements read out the Dpp morphogen gradient in Drosophila

17:15 Nina Meyer (University of Karlsruhe, Germany): Relocation of the TRPL ion channel in Drosophila photoreceptors depends on the presence of rhodopsin, the TRP channel and the scaffolding protein INAD

17:30 Renato Paro (DKFZ Heidelberg, Germany): Genome-wide RNAi and expression profiling to dissect signaling pathways in Drosophila

Minisymposium 7: G-Protein Coupled Receptors
Chairs: Volker Gerke (University of Münster, Germany) and Klaus Peter Hofmann (Charité, Berlin, Germany)

15:00 Introduction

15:15 Mark von Zastrow (University of San Francisco, USA): Regulation of G protein-coupled receptors by endocytosis

15:45 Mark Marsh (MRC, University College London, London, UK, Mac): Trafficking of chemokine receptors

16:15 Ursula Rescher (Centre for Molecular Biology of Inflammation, Münster, Germany): Annexin 1 ñ A novel endogenous ligand of the formyl peptide receptor family

16:30 coffee break

16:45 Martin Lohse (University of Würzburg, Germany): Optical recording of receptor-G-protein signalling

17:15 Jürgen Kreienkamp (UKE Hamburg, Germany): Differential interactions of somatostatin receptor subtypes with PDZ-domain containing scaffold molecules

17:30 O. Ernst (Charité, Berlin, Germany): Sequence of Interactions in Rhodopsin – G protein Coupling

Minisymposium 8: Microtubule Organization in Plant and Animal Cells
Chairs: Ralph Graef (LMU Munich, Germany) and Isabelle Vernos (Heidelberg, Germany)

15:00 Introduction

15:15 Geoffrey O. Wasteneys (Vancouver, Canada): MOR1, the plant homologue of the microtubule-associated protein, XMAP215, regulates microtubule assembly dynamics

15:45 Isabelle Vernos (EMBL, Heidelberg, Germany): Mechanism of spindle assembly in animal cells

16:15 Franz Grolig (Philipps-University, Marburg, Germany): Chloroplast positioning and nuclear centering in the green alga Spirogyra crassa

16:30 coffee break

16:45 Anne-Catherine Schmit (IBMP, Université Louis Pasteur, Strasbourg, France): Microtubule nucleation complexes in higher plants

17:15 Hannah Müller (MPI for Molecular Genetics, Berlin, Germany): Identification and molecular characterization of centrosomal proteins in Drosophila melanogaster

17:30 Ralph Graef (LMU Munich, Germany): Role of dynein-associated proteins in maintenance of radial microtubule arrays

18:00: Mitgliederversammlung

19:00: Tutorials

Saturday, March 27, 2004

9:30-12:15: Minisymposia

Minisymposium 9: Cell Cycle Regulation
Chairs: Erich Nigg (MPI for Biochemistry, Martinsried, Germany) and Christian Lehner (University of Bayreuth, Germany)

9:30 Introduction (E. Nigg)

9:45 Erich Nigg (MPI for Biochemistry, Martinsried, Germany): Cell division errors as a source of chromosomal instability

10:15 Christian Lehner (University of Bayreuth, Germany): The control of mitotic phase transitions

10:45 Edgar Vogt (University of Bielefeld, Germany): Spindle Checkpoint and MAD2 expression in Mammalian Oocytes

11:00 coffee break

11:15 John F.X. Diffley (Cancer Research UK London Research Institute, South Mimms, UK): DNA replication and genome stability: Lessons from budding yeast

11:45 Ingrid Hoffmann (DKFZ, Heidelberg, Germany): The Polo-like kinase PLK2 is required for centrosomal duplication in Mammalian cells

12:00 Kurt Engeland (University of Leipzig, Germany): Checkpoint control by transcriptional regulation in the cell cycle

Minisymposium 10: Vesicular Trafficking
Chairs: Rainer Duden (University of Cambridge, Cambridge, UK) and Charles Barlowe (Dartmouth Medical School, USA)

9:30 Introduction

9:45 Tommy Nilsson (Goteborg University, Sweden): Policing the secretory pathway: How COP I identifies and retrieves wanted suspects

10:15 Charles Barlowe (Dartmouth Medical School, Hanover, NH, USA): COP II in ER-to-Golgi traffic

10:45 Markus Grabenbauer (EMBL Heidelberg, Germany): Photoconversion of GFP enables direct visualization of Golgi-resident proteins by electron tomography

11:00 coffee break

11:15 Blanche Schwappach (ZMBH Heidelberg, Germany): 14-3-3 proteins control the trafficking of multimeric membrane proteins out of the ER

11:45 Gabriella Frigerio (University of Cambridge, UK): Two novel ARFGAPs enriched in coatomer-coated vesicles

12:00 David Robinson (University of Heidelberg, Germany): Visualization of ER-exit sites in Plant Cells

Minisymposium 11: New Developments in Proteomics
Chairs: Erich Wanker (MDC Berlin, Germany) and Hans Lehrach (MPI for Molecular Genetics, Berlin, Germany)

9:30 Introduction

9:45 Marc Flory (University of Washington, Seattle, USA): Quantitative Proteomics: Current Status, Challenges and New Directions

10:15 Joachim Klose (Charité, Berlin, Germany): The Cellular Proteome: Protein Minimization and Protein Crowding

10:45 Christian Maercker (RZPD, Germany): Antibody arrays for the analysis of gene expression and protein phosphorylation identify key players in tumor angiogenesis

11:00 coffee break

11:15 Mathias Uhlen (Royal Institute of Technology, Stockholm, Sweden): Affinity proteomics to explore the human proteome