GRK 2039 Program

Wed, Oct 4th	Name	Institution	Topic
13:30 – 13:40	Prof. Hans-Achim Wagenknecht	Karlsruhe Institute of Technology	Welcome
Fluorescent DNA/RNA			
Chair: Prof. Hans-Achim Wagenknecht			
13:40 – 14:20	Prof. Jonathan Hall	ETH Zurich	Dissecting RNA function in cells with chemical tools
14:20 – 15:00	Prof. Heiko Ihmels	University of Siegen	Playing around with fluorescent quinolizinium derivatives: From light-up probes for DNA detection to fluorimetric analysis of cells
15:00 – 15:30	**Break**		
15:30 – 15:50	Christian Schwechheimer	Karlsruhe Institute of Technology	Nucleophilicity-dependent Photostability of Cyanine-DNA-Bioconjugates for Live Cell Imaging
15:50 – 16:10	Christian Steinmetzger	Julius-Maximilians-Universität Würzburg	Chili – an optimized RNA aptamer for a family of fluorogenic dyes
16:10 – 16:30	Dr. Joanna Kowalska	University of Warsaw	Application of „clickable" nucleotides for the development of fluorescently labelled nucleotide-based probes
16:30 – 17:10	Dr. Samie R. Jeffrey	Cornell University	Imaging RNA and RNA biology using RNA mimics of green fluorescent protein
17:30	**Poster Session**	**Finger food/ refreshments**	

Thu, Oct 5th			
Fluorescent bioconjugates/ photo-switches			
Chair: Prof. Ute Schepers			
9:00 – 9:40	Prof. Qing Lin	University at Buffalo	Reactivity-based tools for fluorescent imaging
9:40 – 10:00	Dr. Frédéric Friscourt	University of Bordeaux	The Sweet Imaging of Living Cells
10:00 – 10:30	**Break**		
10:30 – 11:10	Prof. Hans-Achim Wagenknecht	Karlsruhe Institute of Technology	Bioorthogonal labeling of DNA
11:10 – 11:50	Dr. Zbigniew Pianowski	Karlsruhe Institute of Technology	Oligonucleotide analogues for intracellular delivery and localization of fluorescent probes
11:50 – 13:00	**Lunch**		
13:00 – 13:40	Prof. Christof Niemeyer	Karlsruhe Institute of Technology	Supramolecular DNA architectures for fluorescence analysis of biomolecular interactions
13:40 – 14:20	Prof. Françisco Raymo	University of Miami	Activatable fluorophores
14:20 – 14:40	Dr. Péter Kele	Hungarian Academy of Sciences, Budapest	Multiply quenched fluorogenic probes
14:40 – 15:00	Dr. Richard Wombacher	Ruprecht-Karls-University Heidelberg	New Fluorogenic Probes for Bioorthogonal Chemistry in Fixed and Live Cells
15:00 – 15:30	**Break**		
15:30 – 15:50	Damian Ploschik	Karlsruhe Institute of Technology	In Vivo Bioorthogonal Labeling Using Cyclopropene-Modified Oligonucleotides
15:50 – 16:10	Dr. Sylvia Schmid	University of Ulm	Bio-conjugated Oligothiophenes

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Fluorescent tracking in cells /cell delivery			
Chair: Prof. Christof Niemeyer			
16:20 – 16:40	Bettina Olshausen	Karlsruhe Institute of Technology	Fluorescent Melanocyte markers with possible application in the early detection of melanoma
16:40 – 17:10	Prof. Stefan Bräse	Karlsruhe Institute of Technology	Cellular Delivery with Designed Fluorescent Molecular Transporters
17:10 – 17:40	Prof. Ute Schepers	Karlsruhe Institute of Technology	Fluorophore tagged compound libraries for organ and cellular drug targeting
17:40 – 18:00	Prof. Boris Schmidt	TU Darmstadt	Fluorescent Dyes Detect Aβ- and Tau-Pathology post mortem and in vivo

Fri, Oct 6th

Imaging			
Chair: Dr. Andreas-Neil Unterreiner			
9:00 – 9:40	Prof. Mark Bradley	University of Edinburgh	In vivo optical medical imaging - from glass to man
9:40 – 10:20	Prof. Ulrich Nienhaus	Karlsruhe Institute of Technology	Stimulated emission double depletion (STEDD) for background suppression in nanoscale imaging and fluorescence fluctuation spectroscopy
10:20 – 10:50	**Break**		
10:50 – 11:10	Alena Kalyakina	Karlsruhe Institute of Technology	Lanthanide-based luminescent probes for cellular imaging
11:10 – 11.30	Dr. Karin Nienhaus	Karlsruhe Institute of Technology	Rational Engineering of Photoconvertible Fluorescent Proteins for Dual-Color Fluorescence Nanoscopy Enabled by a Triplet-State Mechanism of Primed Conversion
11:30 – 11:50	Andreas Schmidt	Goethe-Universität Frankfurt	From design to valid constructs: labeled proteins for single molecule investigation of RNP complexes
11:50 – 12:10	Prof. Peneva Kalina	Friedrich Schiller University Jena	Water-soluble NIR-absorbing rylene chromophores for visualization of cellular organelles
12:10 – 12:30	Dr. Janet Arras	Karlsruhe Institute of Technology	Long Persistent Luminescent Materials for Photoluminescent Imaging of Cells
12:30 – 13:10	Prof. Marcel Bruchez	Carnegie Mellon University	Fluorogen activating proteins and the dyes that bind them: Modular Functional reporters
13:10 – 13:20	Prof. Hans-Achim Wagenknecht	Karlsruhe Institute of Technology	**Closing remarks**


GRK 2039
Symposium
October 4. - 6.
Symposium on Molecular Architectures for Fluorescent Imaging of Cells
DFG