



RNA biochemistry



04.10.2018-07.10.2018

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Schedule

Thursday, 4.10.2018		
15:00	Registration opens	
18:00	Dinner	
19:00	Welcome	
	Session I Regulation	
19:15	Isabella Moll	Alternative splicing in Bacteria?
19:35	Sven Diederichs	Proteome-wide and quantitative identification of RNA-dependent proteins
19:55	Cynthia Sharma	Campylobacter jejuni Cas9 can bind and cleave endogenous RNAs
20:15	Elena Evguenieva-Hackenberg	Gene regulation in trans by a bacterial attenuator RNA and leader peptide
20:30	Get-together	

Friday, 5.10.2018

Session II RNA structure and folding		
9:00	Eric Westhof	Three flavours of GoU pairs control translational fidelity
9:20	Zasha Weinberg	Discovery of novel classes of non-coding RNAs in bacteria with bioinformatics
9:40	Henning Urlaub	It takes two – UV and chemical cross-linking of proteins to RNA
10:00	Stephanie Kath-Schorr	RNA functionalization via an expanded genetic alphabet
10:30	Coffee break	
Session III RNA processing		
11:00	Roland Hartmann	Studies on bacteria that encode two types of RNase P, the classical RNA-based and a novel RNA-free RNase P
11:20	Markus Bohnsack	The diverse roles of RNA helicases in driving structural transitions and compositional changes in RNA-protein complexes
11:40	Claus Kuhn	Planarians rebrand piRNAs to control mRNA turnover during regeneration
12:00	Michaela Müller-McNicoll	SRSF7 autoregulation - protein halves, intron retention and phase-separated nuclear bodies
12:30	Lunch	
Workshop „Synthetic RNA Biology“		
13:30	Beatrix Süß	RNA aptamers as genetic control devices – the potential of riboswitches as synthetic elements for regulating gene expression
14:00	Philipp Holliger	Replicating RNA with RNA
14:30	Oliver Rossbach	Artificial circular RNA sponges as a novel tool in molecular biology and medicine
15:00	Coffee break	
15:30	Mario Mörl	A synthetic riboswitch controlling tRNA processing
16:00	Claudia Höbartner	N6-Methyladenosine-sensitive RNA-cleaving deoxyribozymes
16:30	Günter Mayer	Optoribogenetics for the light-dependent control of RNA function in cells
17:00	Julia Weigand	Identification of new cis-regulatory elements based on structural conservation
17:20	Poster Intro	
18:00	Dinner	
19:00	Poster A & Drinks	

Saturday, 6.10.2018

Session IV Ribonucleoproteins		
9:00	Finn Werner	Transcription and histone-based chromatin in archaea
9:20	Dina Grohmann	SLAM-FRET provides insights into the conformational landscape of human Argonaute 2
9:40	Martin Hengesbach	Single molecule FRET analysis of archaeal and eukaryotic H/ACA complexes
10:00	Jan Diesend	Mapping of the rRNA methylation pattern and identification of 28 novel box C/D snoRNAs in <i>Dictyostelium discoideum</i>
10:30	Coffee break	
11:00	Jernej Ule	Transcriptome-wide profiling of mammalian spliceosome and branchpoints with iCLIP
11:20	Dorothee Staiger	Catch me if you can: Ribonomics to identify RNA-binding protein targets in Arabidopsis
11:40	Jan-Philip Wurm	Conformational landscape and active conformation of the Dcp1:Dcp2 mRNA decapping complex
12:00	Thorsten Stafforst	SNAP-tagged tools to manipulate the transcriptome
12:30	Lunch	
Session V Regulation 2		
13:30	Cindy Meyer	The role of RNA-binding protein families and post-translation modifications in the regulation of post-transcriptional gene expression and cellular response to stress
13:50	Jan Medenbach	Flipping the switch on sexual development: Competition between two RNA-binding proteins controls alternative splicing and sex determination in <i>Drosophila</i>
14:10	Sutapa Chakrabarti	Isoform-specific catalytic activity of the NMD RNA helicase UPF1: how alternative splicing introduces structural changes to differentially regulate an enzyme
14:30	Dagmar Klostermeier	The mRNA 5'-untranslated region determines the helicase activity of the eukaryotic translation initiation factor eIF4A by modulating its conformational cycle
15:00	Coffee break	
15:30	Maude Guillier	Translation activation by mRNA secondary structures revealed by small RNA regulation
15:50	Udo Bläsi	Concerted action of Hfq and Crc in Hfq-dependent translational regulation in <i>Pseudomonas aeruginosa</i>
16:10	Agamemnon J. Carpousis	Cell biology of RNA processing and degradation in <i>Escherichia coli</i> : functional significance of RNA degradosome attachment to the inner cytoplasmic membrane
16:30	Benedikt Beckmann	Cell-wide purification of RNA-bound proteins in human and bacteria
17:00	Organizational meeting GBM study group "RNA Biochemistry"	
18:00	Dinner	
19:00	Poster B & Drinks	

Sunday, 7.10.2018

Sunday, 7.10.2018		
	Session VI CRISPR	
9:00	Chase Beisel	Accelerating CRISPR discovery and application
9:20	Thandi Schwarz	The tRNA Splicing endonuclease of <i>Haloferax volcanii</i> - transcription repression and potential substrates
9:40	Hanna Müller-Esparza	Assembly of Class I CRISPR surveillance complexes
10:00	Marius Rutkauskas	Decision making in crRNA guided DNA recognition by CRISPR complexes
10:30	Coffee break	
11:00	Session VII Chemical Biology	
11:00	Mark Helm	A pipeline for total tRNA composition analysis broken down to isoacceptors and differential modification content
11:20	Stefanie Kellner	A novel RNA modification in bacteria – damage product or functional entity?
11:40	Johannes Leufken	pyRNAs enables automated omics scale nucleoside mass spectrometry data analysis for the common user
12:00	Andrea Rentmeister	A chemical biology approach for mapping methyltransferase target sites in RNA
12:20	Announcement of poster prizes (2 x 100€ sponsored by NAR)	
12:30	Lunch	
Have a safe trip home!		