SCNAC 2014 Program

Monday, 9.6.2014

Chairman: Michal Hocek

8:30	8:50	M. Hocek	Opening
8:50	9:30 PL 1	H. Sugiyama	Chemical Biology that Controls DNA Structure and Function: DNA Origami and Artificial Genetic Switch
9:30	9:50 OC 1	A. Taladriz Sender	Synthesis and interaction studies of cationic glyco-oligoamide DNA binders
9:50	10:10 OC 2	J. W. Park	Fluorescence Modification of the AAAA (4A) Loop to Probe the Structural Transition of the i-Motif
10:10	*10:40*	*Coffee Break*	

Chairman: Andreas Marx

10:40	11:20 PL 2	A. Ono	Syntheses and characterizations of DNA duplexes having metal ion mediated base pairs
11:20	11:40 OC 3	M. Etheve-Quelquejeu	Peptidyl-RNA conjugates to explore non-ribosomal peptide synthesis in bacteria.
11:40	12:00 OC 4	J. Heemstra	Harnessing RNA-Small Molecule Recognition for Covalent RNA Modification
12:00	12:20 OC 5	T. Lavergne	Template assembled synthetic antiparallel G-quadruplex
12:20	12:40 OC 6	G. Hayashi	Metal-mediated reactions to detect 5-methylcytosine and 5-hydroxymethylcytosine in DNA
12:40	*14:20*	*Lunch*	

Chairman: Hiroshi Sugiyama

14:20	15:00 PL 3	H. Sleiman	Three-dimensional DNA structures: design and biological applications
15:00	15:20 OC 7	J. Riedl	Site-specific labeling of DNA base modifications for amplification of DNA damage
15:20	15:40 OC 8	S. Sturla	Synthetic nucleosides for probing stability and polymerase processing of DNA adducts
15:40	16:00 OC 9	I. Hirao	Generation of high affinity DNA aptamers by the expansion of the genetic alphabet
16:00	*16:30*	*Coffee Break*	

Chairman: Annemieke Madder

16:30	17:10 PL 4	O. Seitz	DNA/RNA-controlled reactions and assemblies for the interrogation of biology
17:10	17:50 CL 1	J. Balintová, P. Ménová, J. Dadová, P. Kielkowski	Polymerase synthesis of base-modified DNA: new methods and new applications
17:50	18:10 OC 10	A. Marx	DNA polymerases in action with modified substrates
18:10	18:30 OC 11	M. Hollenstein	Modified nucleoside triphosphates in rolling circle amplification
19:00	*23:00*	*Jena Bioscience Beer Party and Dinner*	

Tuesday, 10.6.2014

Chairman: David M. Williams

8:30	9:10 PL 5	V. Schramm	Enzymatic transition states and drug design
9:10	9:30 OC 12	D. Hocková	Acyclic nucleoside bisphosphonates as inhibitors of 6-oxopurine phosphoribosyltransferases: potential antimalarial and antibacterial agents
9:30	9:50 OC 13	J. M. Swarbrick	Cyclic adenosine 5'-diphosphate ribose signalling: towards drug-like analogues to modulate CD38 and calcium release
9:50	10:10 OC 14	D. Rejman	Insights into the mechanism of action of bactericidal lipophosphonoxins
10:10	*10:40*	*Coffee Break*	

Chairman: Jean-Jacques Vasseur

10:40	11:20 PL 6	E. Murakami	Nucleoside/Nucleotide Analogues for HCV
11:20	11:40 OC 15	R. Nencka	Novel conformationally locked nucleosides and nucleotides

11:40	12:00 OC 16	L. Beigelman	Derisking the potential for mitochondrial toxicity of ribonucleoside analogs in antiviral screens
12:00	12:20 OC 17	T. Tichý	Tyrosine-based prodrugs of acyclic nucleoside phosphonates
12:20	12:40 OC 18	T.-C. Chien	Synthesis of 6-Substituted Uracil and Uridine Derivatives
12:40	*14:20 Lunch*		

Chairman: Zdenek Hostomsky

14:20	14:40 OC 19	C. Dupouy	A straightforward synthesis of RNA prodrugs bearing biolabile pivaloyloxymethyl groups
14:40	15:00 OC 20	M. K. Chmielewski	2-Pyridinyl thermolabile protecting groups as an effective protectant in nucleic acid chemistry
15:00	16:00 Sorm Award lecture	M. Caruthers	Oligonucleotide synthesis interfaced with molecular biology and nanotechnology
16:00	*21:00 Alios Biopharma Poster Session and Dinner*		

Wednesday, 11.6.2014

Chairman: Jesper Wengel

8:30	9:10 PL 7	F. Romesberg	Expansion of the Genetic Alphabet
9:10	9:30 OC 21	M. Tomás Gamasa	Reversible covalent bonding allows construction of a new bio-isosteric DNA base pair
9:30	9:50 OC 22	D. M. Williams	Touching base with arginine: recognition of O6-alkyl guanines by alkyltransferase-like protein Atl1
9:50	10:10 OC 23	J. C. Martins	Towards the de novo design of DNA based catalytic sites using a combined NMR and in silico approach
10:10	*10:40 Coffee Break*		

Chairman: Hans-Achim Wagenknecht

10:40	11:00 OC 24	M. Ziemniak	Utility of chemically modified cap analogues in studying Dcp1/2 decapping complex mechanism of action
11:00	11:20 OC 25	J. Kowalska	Synthesis and properties of nucleotides containing a fluorophosphate moiety
11:20	11:40 OC 26	P. Bartos	The possible pathway of oxone-mediated desulfuration of 2-thiouridine
11:40	12:00 OC 27	M. Sekine	Synthesis and properties of base or sugar modified RNA derivatives
12:00	12:20 OC 28	K. Murayama	Development of an ultra-sensitive fluorescent probe composed of artificial nucleic acid for the detection of mRNA in cell
12:20	13:00 PL 8	M. Manoharan	Conjugation strategies for systemic delivery of RNAi drugs
13:00	*14:00 Lunch*		
14:00	*20:00 Free afternoon, trips*		
20:00	*24:00:00 Chemgenes Conference Dinner*		

Thursday, 12.6.2014

Chairman: Shankar Balasubramanian

8:30	9:10 PL 9	C. He	Reversible DNA and RNA methylation in biological regulation
9:10	9:30 OC 29	T. Carell	DNA Bases Beyond Watson and Crick
9:30	9:50 OC 30	J. Wengel	Novel aptamers based on LNA and UNA
9:50	10:10 OC 31	A. Madder	Furan oxidation cross-linking: A versatile approach for the study and targeting of protein and nucleic acid interactions
10:10	*10:40 Coffee Break*		

Chairman: Jean-Louis Mergny

10:40	11:20 PL 10	E. Westhof	Isostericity, Tautomerism and Geometric Selection of Nucleic Acid Base Pairs
11:20	11:40 OC 32	M. Gruen	Fluorescent nucleotides: a powerful toolbox for labeling of biological macromolecules
11:40	12:00 OC 33	R. Micura	From novel RNA modifications to riboswitch function
12:00	12:20 OC 34	H. Asanuma	Orientation-dependent FRET between the intercalated donor and acceptor fluorophores
12:20	12:40 OC 35	H. A. Wagenknecht	Postsynthetic labeling of DNA and RNA by fluorophores

12:40	*14:20 Lunch*		

Chairman: Floyd Romesberg

14:20	15:00 PL 11	S. Balasubramanian	G-quadruplex: the DNA quadruple helix
15:00	15:20 OC 36	M. P. Teulade-Fichou	Trapping quadruplexes with highly specific crosslinking agents
15:20	15:40 OC 37	G. Chatelain	Synthesis of a multibranched porphyrin-oligonucleotide scaffold for the construction of DNA-based nano-architecture
15:40	16:00 OC 38	N. Spinelli	Aptasensors for the detection of low mass analytes
16:00	*16:30 Coffee Break*		

Chairman: Thomas Carell

16:30	16:50 OC 39	J. Plavec	Influence of 5'-5' inversion of polarity site within d(TG_4T) on cation binding
16:50	17:10 OC 40	R. Dembinski	Synthesis of modified nucleosides from 5-Alkynyl-2'-deoxyuridines
17:10	17:30 OC 41	S. Mikhailov	Substrate specificity of E. coli uridine phosphorylase. Evidence of high-syn conformation of substrate.
17:30	18:10 PL 12	J.-L. Mergny	Quadruplexes are everywhere!
18:10	18:30 Concluding Remarks	M. Hocek	
19:00	*20:00 Organ Concert*		
20:00	*21:30 Dinner*		