

Conference Programme

Monday 7th September

09.30 **REGISTRATION AND COFFEE**

10.30 –10.40 **WELCOME by Jason Micklefield**

SESSION I

Chair: Mike Gait

10.40 – 11-15 **Jesper Wengel**
Enzymatic synthesis of oligonucleotides containing LNA and UNA (locked and unlocked nucleic acid)

11.15 - 11.50 **Andrew Turberfield**
DNA nanostructures and synthetic molecular machinery

11. 50 – 12.10 **Stefan Vogel**
DNA controlled assembly of liposomes

12.10 – 12.30 **Alethea Tabor**
Modular, environment-responsive lipopolyplexes for gene delivery in vivo: design, synthesis and characterisation

12.30 – 13.45 **LUNCH and EXHIBITION**

SESSION II

Chair: TBA

13.45 – 14.20 **Ronald Micura**
On riboswitch folding and ribosomal peptide-bond formation

14.20 – 14.55 **Peter Stockley**
The importance of RNA folding and refolding in simple viruses and artificial riboswitches

14.55 – 15.15 **Eugen Stulz**
DNA as supramolecular scaffold for functional molecules

15.10 – 15.30 **Marina Gottikh**
Short modified oligonucleotides as allosteric inhibitors of HIV-1 integrase

15.30 – 16.00 **COFFEE BREAK and EXHIBITION**

SESSION III

Chair: Rick Cosstick

16.00 – 16.35 **Masad Damha**
Impact of 2'F-arabino and 2'F-ribonucleosides on the structure and therapeutic potential of oligonucleotides

16.35 – 17.10	Shankar Balasubramanian The nature and chemical biology of the G-quadruplex nucleic acids
17.10 – 17.30	Marie-Paule Teulade-Fichou Engineering bis-quinolinium thiazole orange conjugates for fluorescence sensing of G-quadruplex DNA
17.30 – 17.50	Michal Hocek Novel functionalized nucleic acids. Construction by polymerase incorporation of modified nucleoside triphosphates and applications
EVENING SPONSORED BY CHEMGENES	
18.00 – 21.00	POSTERS
	BUFFET MEAL Interface Café

Tuesday 8th September

SESSION IV

Chair: TBA

09.00 – 09.35	Robert Batey Structural insights into metabolite binding mRNAs
09.35 - 10.10	Sabine Müller Redox-active riboswitching by ligand shape control
10.10 - 10.30	Neil Dixon New riboswitch tools for orthogonal genetic regulation
10.30 – 10.50	Martin Fabani In vitro and in vivo inhibition of microRNAs by peptide nucleic acids
10.50 – 11.15	COFFEE BREAK and EXHIBITION
11.15 – 11.20	Announcement of the IS3NA XIX Round Table Conference (Aug 29 – Sep 3 2010)

SESSION V

Chair: TBA

11.20 – 11.55	Oliver Seitz Targeting nucleic acid and protein targets with smart nucleic acid hybrids
11.55 – 12.15	Stephan Howorka Chemical tags facilitate the sequence-specific sensing of DNA strands with non-engineered nanopores

12.15 – 12.35 **Shigenori Iwai**
Fluorescence detection of base-excision repair reactions using modified oligonucleotides

12-35 – 13.40 **LUNCH and EXHIBITION**

SESSION VI

Chair: **TBA**

13.40 – 14.15 **David Lilley**
How does a ribozyme work?

14.15 – 14.35 **Doug Dellinger**
Adventures in RNA synthesis: enabling cost-effective large-scale synthesis of therapeutics and stream-lined deprotection for high-throughput screening

14.35 – 14.55 **Afaf El-Sagheer**
DNA ligation by click chemistry: cyclization, catenation and PCR amplification of unnatural DNA backbones

14.55 - 15.00 **Concluding Remarks and CLOSE**