

## Frontiers in epigenetic chemical biology

22 – 23 May 2017

Organised by Professor A Ganesan, Professor Marianne Rots, Dr Paola B Arimondo and Dr Akane Kawamura

DAY 1			
SESSION 1: Epigenetic modulation by small molecules Chair: Maria Berdasco Menéndez		SESSION 2: Nucleic acids beyond AGTC Chair: Marianne Rots	
09.00	Welcome by the Royal Society and A Ganesan		
09.05	<b>Gregory Challis</b> From antibiotics to histone deacetylase inhibitors: elucidating and exploiting biosynthetic protein-protein interactions	13.30	<b>Paola B. Arimondo</b> Design and activity of DNA methylation inhibitors in cancer cells
09.30	Discussion	14.00	Discussion
09.45	<b>A Ganesan</b> HDAC inhibitors, progress and prospects	14.15	<b>Magdalena Koziol</b> Identification and characterisation of methylated deoxyadenosines in vertebrates
10.15	Discussion	14.45	Discussion
10.30	Coffee	15.00	Tea
11.00	<b>Minoru Yoshida</b> Metabolic regulation of SIRT2, a dual-specificity deacylase	15.30	<b>Maria Berdasco Menéndez</b> Deregulation of non-coding RNA in cancer and their interactions with histone modifiers
11.30	Discussion	16.00	Discussion
11.45	<b>Christopher Schofield FRS</b> Regulation of protein biosynthesis by oxygen	16.15	<b>Thomas Carell</b> New bases beyond Watson and Crick
12.15	Discussion	16.45	Discussion
12.30	LUNCH	17.00	Poster session
		18.15	CLOSE

<b>DAY 2</b>			
<b>SESSION 3: Epigenetic DNA and RNA targeting</b>		<b>SESSION 4: Epigenetic drug discovery</b>	
Chair: Akane Kawamura		Chair: A Ganesan	
<b>09.00</b>	<b>Robert Brown</b> Epigenetic approaches to overcome cancer drug resistance: a moving target	<b>13.30</b>	<b>Robert Copeland</b> Protein methyltransferase inhibitors as precision cancer therapeutics
<b>09.30</b>	Discussion	<b>14.00</b>	Discussion
<b>09.45</b>	<b>Marianne Rots</b> Rewriting a gene's epigenetic signal at will	<b>14.15</b>	<b>Tamara Maes</b> Shifting the balance: epigenetic modulators in drug development
<b>10.15</b>	Discussion	<b>14.45</b>	Discussion
<b>10.30</b>	Coffee	<b>15.00</b>	Tea
<b>11.00</b>	<b>Daniel Summerer</b> Expanding the programmability of DNA recognition	<b>15.30</b>	<b>Chun-wa Chung</b> Selectivity: design and serendipity for epigenetic targets
<b>11.30</b>	Discussion	<b>16.00</b>	Discussion
<b>11.45</b>	<b>Shankar Balasubramanian FRS</b> The chemistry, structure and function of modified DNA bases	<b>16.15</b>	<b>Antonello Mai</b> Assessing sirtuins as drug targets in human illnesses
<b>12.15</b>	Discussion	<b>16.45</b>	Discussion
<b>12.30</b>	LUNCH	<b>17.00</b>	CLOSE

*Draft programme – correct as of 11 May 2017 – subject to change*