

Chemical biology approaches to assessing and modulating mitochondria

Monday 26 September – Tuesday 27 September 2016 | The Royal Society at Chicheley Hall, Buckinghamshire

Organised by Dr Mike Murphy

THE
ROYAL
SOCIETY

Monday 26 September 2016				Tuesday 27 September 2016			
SESSION 1: Targeting mitochondria		SESSION 2: Mitochondrial redox state		SESSION 3: Small molecule probes		SESSION 4: Chemical approaches	
Chairs Salvador Moncada FRS and Jan Smeitink		Chairs Mike Murphy and Vsevolod Belousov		Chairs Shana Kelley and Robert Bob Lightowlers		Chairs Helena Cochemé and Balaraman Kalyanaraman	
09.00	Welcome by the Royal Society and Mike Murphy						
09.05	Mike Murphy Strategies to assess and intervene in mitochondria	13.30	Tobias Dick Use of fluorescent proteins as mitochondrial redox probes	09.00	Elizabeth New Mitochondrial redox probes	13.30	Richard Hartley Molecular probes for assessing mitochondrial function
09.35	Robert Lightowlers Delivering large bioactive molecules to mitochondria	14.05	Christopher Chang Molecular imaging approaches to studying redox biology in the brain	09.35	Angela Logan Mitochondria targeted mass spec probes	14.05	Kate Carroll The mother of invention in thiol redox proteomics
10.10	Discussion	14.40	Discussion	10.10	Discussion	14.40	Discussion
10.30	Coffee	15.00	Tea	10.30	Coffee	15.00	Tea
11.05	Shana Kelley Peptide probes for mitochondrial chemical biology	15.30	Milos Filipovic Chemical biology of H ₂ S signalling: the role of mitochondria	11.00	Balaraman Kalyanaraman Mitochondria-targeted metformins as antitumor agents	15.30	Jan Smeitink Mitochondrial disease treatment: the Saga of KH176
11.40	Nils-Göran Larsson Regulation of mammalian mtDNA gene expression	16.00	Salvador Moncada FRS Nitric oxide and mitochondria	11.35	Christian Frezza Mitochondrial metabolites and cancer	16.05	Panel discussion: Future challenges and opportunities Chaired by Mike Murphy
12.10	Discussion	16.35	Discussion	12.10	Discussion	17.00	CLOSE
12.30	LUNCH	17.00	CLOSE	12.30	LUNCH		

Draft programme – correct as of **11/03/16** – subject to change