

ISACS11: Challenges in Chemical Biology

23-26 July 2013, Boston, USA

Programme

Tuesday 23rd July 2013

15:30	Registration
16:45	Opening Remarks
Session 1: Plenary Session	
16:55	Honorary Fellowship Presentation
17:00 PL01	PLENARY: What was first, the genetic code or it's products? Professor Ada Yonath <i>Weizmann Institute, Israel</i>
18:00	Welcome Reception
20:00	Close

Wednesday 24th July 2013

Session 2: Chromatin biology and Epigenetics	
09:00 PL02	PLENARY: Towards chemistry-enabled patient-based drug discovery Professor Stuart Schreiber <i>Broad Institute and Harvard University, USA</i>
09:45 PL03	PLENARY: When Bugs Talk: Virulence Regulation in Staphylococci Professor Tom Muir <i>Princeton University, USA</i>
10:30	Coffee
11:00 PL04	PLENARY: Targeting the Histone Demethylone Professor Udo Opperman <i>University of Oxford, UK</i>
11:45 O01	CONTRIBUTED: Developing Chemical Approaches to Examine Histone Posttranslational Modifications Professor Dr Xiang David Li <i>The University of Hong Kong, Hong Kong</i>
12:10	Lunch
Session 3: Immunology and Microbiology	
13:25 PL05	PLENARY: Towards Synthetic Immune Cells Professor Carl Figdor <i>Radboud University Nijmegen, The Netherlands</i>
14:10 O02	CONTRIBUTED: Structure, Function, and Inhibition of Bacterial Biofilms Strings Professor Lynette Cegelski*, Oscar McCrate, Xiaoxue Zhou, Courtney Reichhardt and Ji Youn Lim <i>Stanford University, USA</i>
14:35 O03	CONTRIBUTED: Chemical crosstalk within and between species: what are bacteria telling us? Professor Michael M. Meijler*, Neri Amara, Hadas Ganin, Luba Dubinsky and Josep Rayo, <i>Ben-Gurion University of the Negev, Israel</i>

15:00	Coffee
15:30 PL06	PLENARY: The Fascinating Chemistry and Biology of Dyes Professor Dirk Trauner <i>Ludwig-Maximilians-Universität, Germany</i>
16:15 F01	FLASH POSTER: Developing Chemical Probes for the BET Bromodomains David Hewings*, Oleg Fedorov, Panagis Filippakopoulos, Stefan Knapp, Paul Brennan and Stuart J. Conway <i>University of Oxford, UK</i>
16:25 F02	FLASH POSTER: Development of New Generations of Fluorescent False Neurotransmitters for High Resolution Imaging of Neurotransmitter Release Paolomi Merchant*, Daniela B. Pereira, Dalibor Sames and David Sulzer <i>Columbia University USA</i>
16:35 F03	FLASH POSTER: Traffic Light peptides: regulation of clathrin-mediated endocytosis through the photo-control of protein-protein interactions Laura Nevola*, A. Martín-Quirós, K. Eckelt, N. Camarero, S. Tosi, A. Llobet, P. Gorostiza and E. Giralt <i>Institute for Research in Biomedicine (IRB Barcelona), Spain</i>
16:45	Posters
18:15	Close

Thursday 25th July 2013

Session 4: Cancer Biology	
09:00	Chemical Science 2013 Lectureship presentation
09:05 PL07	PLENARY: Chemical Genetics of Protein Kinase Signaling Cascades Professor Kevan Shokat <i>University of California, San Francisco, USA</i>
09:50 O04	CONTRIBUTED: A cyclic peptide inhibitor of C-terminal binding protein dimerization links metabolism with mitotic fidelity in breast cancer cells Professor Ali Tavassoli*, Charles N Birts, Sharandip K Nijjar, Charlotte A Mardle, Franciane Hoakwie, Patrick J Duriez and Jeremy P Blaydes <i>University of Southampton, UK</i>
10:15 O05	CONTRIBUTED: Altering the Apoptotic Network in Cancer: A Promising Therapeutic Approach Dr Kurt Deshayes <i>Genetech Inc. USA</i>
10:40	Coffee
11:10 PL08	PLENARY: Visualizing information transfer through the plasma membrane Professor Alanna Schepartz <i>Yale University, USA</i>
11:55 O06	CONTRIBUTED: Selective inhibition of cancer-related proteases with phage-selected bicyclic peptides Professor Christian Heinis <i>Ecole Polytechnique Fédérale de Lausanne, Switzerland</i>
12:20	Lunch
Session 5: Neuroscience	

13:30 PL09	PLENARY: From yeast cells to patient neurons: a powerful chemical biology discovery platform for Parkinson's and Alzheimer's Disease Professor Susan Lindquist <i>Whitehead Institute for Biomedical Research, USA</i>
14:15 O07	CONTRIBUTED: Biofunctional Molecules That Regulate Biological Processes Professor Dr Injae Shin <i>Yonsei trUniversity, Korea</i>
14:40 O08	CONTRIBUTED: Photoactivatable opioid receptor ligands for spatiotemporally precise manipulations of opioid signaling Dr Matthew Banghart*, John T Williams and Bernardo L Sabatini <i>Harvard Medical School, USA</i>
15:05	Coffee
15:35 PL10	PLENARY: Activity-based proteomics - applications for enzyme and inhibitor discovery Professor Ben Cravatt <i>The Scripps Research Institute, USA</i>
16:20 F05	FLASH POSTER: Targeting Nitric Oxide Release: Synthesis of No-release Amino Acids and RGD Peptides Andrew Northcliffe*, James A. Ross, Fouad K. Habib, David O'Hagan and Nigel P. Botting <i>University of St Andrews, UK</i>
16:30 F06	FLASH POSTER: Characterization of Nonribosomal Peptides Antibiotics with Non-Natural Amino Acids by MS-MS and NMR Anna-Winona Struck*, Matthew Styles, Jenny Thirlway, Richard Lewis, Laura Nunns, Majid A. Nakeeb, Colin P. Smith and Jason Micklefield <i>University of Manchester, UK</i>
16:40 F07	FLASH POSTER: Structural and Biological Studies on Analogues of the Natural Product Histone Methyltransferase Inhibitor, Chaetocin Fanny Cherblanc*, Kathryn L. Chapman, Laura Alcazar-Fuoli, Elaine M. Bignell, Robert Brown, Henry S. Rzepa, and Matthew J. Fuchter <i>Imperial College London, UK</i>
16:50	Poster Session
18:20	Close
19:30	Bar-B-Q (ticket holders only)

Friday 26th July 2013

Session 6: General Session	
09:00 PL11	PLENARY: Enzyme-Directed Assembly of Nanoparticles in Tumors Professor Hidde Ploegh <i>Massachusetts Institute of Technology, USA</i>
09:45 O12	CONTRIBUTED: Structural and thermodynamic insights into recognition and signalling of bacterial outer membrane lipids in the innate immune system Peter Bond*, Teresa Paramo, Susana Tomasio and Maite Ortiz Suarez <i>University of Cambridge, UK</i>
10:10 O13	CONTRIBUTED: Synthesis and evaluation of stable analogues of phosphohistidine Tom McAllister*, Michael Webb, Henry Farrer, Katherine A. Horner, Jeffrey J. Hollins, Zhenlian Ling and Michael G. D. Nix

	<i>University of Leeds, UK</i>
10:35	Coffee
11:05 O09	CONTRIBUTED: RNA-Based Fluorescent Biosensors for Cyclic Di-Nucleotide Second Messengers Professor Ming C. Hammond*, Colleen A. Kellenberger, Stephen C. Wilson and Jade Sales-Lee <i>University of California at Berkeley, USA</i>
11:30 O10	CONTRIBUTED: Novel chemical probes for the investigation of polyketide biosynthesis <i>in vivo</i> Manuela Tosin <i>University of Warwick, UK</i>
11:55 O11	CONTRIBUTED: Small molecule Ryngo compounds alter dynamin conformation and stimulate GTPase activity Adam McCluskey*, Nick N. Gorgani, Mark J. Robertson, Anna Mariana, Ngoc Chau, Jonathon Lloyd, Chandra S. Malladi, Gordana Hadzic, Jing Xue, Sai Krishnan, James Daniel, Luke Hilliar, Annie Quan, Andrew McGeachie and Phillip J. Robinson <i>The University of Newcastle, Australia</i>
12:20 O14	CONTRIBUTED: Targeting i-Motif DNA structures with small molecule ligands Zoë A. E. Waller* <i>University of East Anglia, UK</i>
12:45	Closing Remarks
13:10	Close of conference

* Denotes presenting author to whom affiliation applies