

# ISACS11: Challenges in Chemical Biology

23-26 July 2013, Boston, USA

## Programme

### Tuesday 23<sup>rd</sup> July 2013

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

### Wednesday 24<sup>th</sup> July 2013

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

15:00	<b>Coffee</b>
15:30 PL06	<b>PLENARY: The Fascinating Chemistry and Biology of Dyes</b> Professor Dirk Trauner <i>Ludwig-Maximilians-Universität, Germany</i>
16:15 F01	<b>FLASH POSTER: Developing Chemical Probes for the BET Bromodomains</b> David Hewings*, Oleg Fedorov, Panagis Filippakopoulos, Stefan Knapp, Paul Brennan and Stuart J. Conway <i>University of Oxford, UK</i>
16:25 F02	<b>FLASH POSTER: Development of New Generations of Fluorescent False Neurotransmitters for High Resolution Imaging of Neurotransmitter Release</b> Paolomi Merchant*, Daniela B. Pereira, Dalibor Sames and David Sulzer <i>Columbia University USA</i>
16:35 F03	<b>FLASH POSTER: Traffic Light peptides: regulation of clathrin-mediated endocytosis through the photo-control of protein-protein interactions</b> 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	<b>Posters</b>
18:15	<b>Close</b>

Thursday 25<sup>th</sup> July 2013

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

13:30 PL09	<b>PLENARY: From yeast cells to patient neurons: a powerful chemical biology discovery platform for Parkinson's and Alzheimer's Disease</b> Professor Susan Lindquist <i>Whitehead Institute for Biomedical Research, USA</i>
14:15 O07	<b>CONTRIBUTED: Biofunctional Molecules That Regulate Biological Processes</b> Professor Dr Injae Shin <i>Yonsei trUniversity, Korea</i>
14:40 O08	<b>CONTRIBUTED: Photoactivatable opioid receptor ligands for spatiotemporally precise manipulations of opioid signaling</b> Dr Matthew Banghart*, John T Williams and Bernardo L Sabatini <i>Harvard Medical School, USA</i>
15:05	<b>Coffee</b>
15:35 PL10	<b>PLENARY: Activity-based proteomics - applications for enzyme and inhibitor discovery</b> Professor Ben Cravatt <i>The Scripps Research Institute, USA</i>
16:20 F05	<b>FLASH POSTER: Targeting Nitric Oxide Release: Synthesis of No-release Amino Acids and RGD Peptides</b> 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	<b>FLASH POSTER: Characterization of Nonribosomal Peptides Antibiotics with Non-Natural Amino Acids by MS-MS and NMR</b> 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	<b>FLASH POSTER: Structural and Biological Studies on Analogues of the Natural Product Histone Methyltransferase Inhibitor, Chaetocin</b> 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	<b>Poster Session</b>
18:20	<b>Close</b>
19:30	<b>Bar-B-Q (ticket holders only)</b>

## Friday 26<sup>th</sup> July 2013

Session 6: General Session	
09:00 PL11	<b>PLENARY: Enzyme-Directed Assembly of Nanoparticles in Tumors</b> Professor Hidde Ploegh <i>Massachusetts Institute of Technology, USA</i>
09:45 O12	<b>CONTRIBUTED: Structural and thermodynamic insights into recognition and signalling of bacterial outer membrane lipids in the innate immune system</b> Peter Bond*, Teresa Paramo, Susana Tomasio and Maite Ortiz Suarez <i>University of Cambridge, UK</i>
10:10 O13	<b>CONTRIBUTED: Synthesis and evaluation of stable analogues of phosphohistidine</b> 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	<b>Coffee</b>
11:05 O09	<b>CONTRIBUTED: RNA-Based Fluorescent Biosensors for Cyclic Di-Nucleotide Second Messengers</b> 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	<b>CONTRIBUTED: Novel chemical probes for the investigation of polyketide biosynthesis <i>in vivo</i></b> Manuela Tosin <i>University of Warwick, UK</i>
11:55 O11	<b>CONTRIBUTED: Small molecule Ryngo compounds alter dynamin conformation and stimulate GTPase activity</b> 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	<b>CONTRIBUTED: Targeting i-Motif DNA structures with small molecule ligands</b> Zoë A. E. Waller* <i>University of East Anglia, UK</i>
12:45	<b>Closing Remarks</b>
13:10	<b>Close of conference</b>

\* Denotes presenting author to whom affiliation applies