

# Challenges in Organic Chemistry

ISACS19



20-23 March 2016  
University of California,  
Irvine (USA)

## Sunday 20 March

12:45	<b>Registration (Tea and coffee – Atrium)</b>
14:15	<b>Welcome and Introductions</b>
	<b>Session 1: Total synthesis</b> Session Chair: Dean Toste
14:30	<b>Target-Driven Total Synthesis</b> <u>Seth Herzon</u> <i>Yale University</i>
15:15	<b>In search of biologically active compounds using the tools of chemical synthesis</b> <u>Andrei K. Yudin</u> <i>University of Toronto</i>
16:00	<b>Tea break</b>
	<b>Session 1 continued: Total synthesis</b> Session Chair: Darren Dixon
16:30	<b>Ligand-accelerated C-H activation reactions: distance and geometry</b> <u>Jin-Quan Yu</u> <i>Scripps Research Institute</i>
17:15	<b>Synthetic efforts aimed at the briarane diterpenoids</b> <u>Andrew Harned</u> <i>Texas Tech University</i>
17:35	<b>Unlocking the Mysteries of Amyloid Diseases with Chemical Model Systems</b> <u>James Nowick</u> <i>University of California, Irvine</i>
18:20	<b>Welcome Reception</b>
19:30	<b>Close (Free evening)</b>

## Monday 21 March

08:45	Registration
	<b>Session 1 continued: Total synthesis</b> Session Chair: Seth Herzon
09:00	<b>New Catalytic Approaches for Simplifying Complex Target Synthesis</b> <u>Darren Dixon</u> <i>University of Oxford</i>
09:45	<b>Enantioselective Synthesis of the Steroidal Core of Batrachotoxin</b> <u>Jacob DeForest</u> , Justin A. Hilf, Maureen K. Reilly and Scott D. Rychnovsky <i>University of California, Irvine</i>
10:05	<b>Structure Elucidation and Total Synthesis of the Kalimantacin Antibiotics</b> <u>Freya Bull</u> , Iain R. G. Thistlethwaite and Christine L. Willis <i>University of Bristol</i>

10:25	Coffee Break
	<b>Session 2: Catalysis</b> Session Chair: Kami Hull
11:00	<b>Synthetic biology approaches to new fluorine chemistry</b> <u>Michelle Chang</u> <i>University of California, Berkeley</i>
11:45	<b>Development of New Catalysts toward Utilization of Renewable Resources</b> <u>Kyoko Nozaki</u> <i>University of Tokyo</i>
12:30	Lunch
	<b>Session 2 continued: Catalysis</b> Session Chair: Andrei Yudin
14:00	<b>Transition Metal-Catalyzed Amination and Amidation Reactions</b> <u>Kami Hull</u> <i>University of Illinois at Urbana-Champaign</i>
14:45	<b>The New Roles of Diboron in Organic Synthesis</b> <u>Qiuling Song</u> <i>Huaqiao University</i>
15:05	Flash Poster Session (by invitation only)
15:35	Coffee Break and Poster Session (ODD NUMBERED POSTERS ONLY)
	<b>Session 2 continued: Catalysis</b> Session Chair: Shu-Li You
17:05	<b>From Simple Hydrocarbons to N-containing Compounds through Nitrogenation Strategy</b> <u>Ning Jiao</u> <i>Peking University</i>
17:50	<b>Palladium/Phosphaadamantane Catalyst Enables an Exclusively trans-Selective Chlorocarbamoylation of Alkynes</b> <u>Christine Le</u> , Xiao Hou, Theresa Sperger, Franziska Schoenebeck and Mark Lautens <i>University of Toronto</i>
18:10	<b>Catalytic C-H Bond Functionalization and Access to Fluorinated Compounds</b> Pan Xu, Weipeng Li, Jin Xie and <u>Chengjian Zhu</u> <i>Nanjing University</i>
18:30	Close (Free evening)

## Tuesday 22 March

	<b>Session 3: Sugars</b> Session Chair: Yamuna Krishnan
09:00	<b>Automated Glycan Assembly Enables Molecular Glycobiology and Material Science</b> <u>Peter Seeberger</u> <i>Max-Planck Institute of Colloids and Interfaces</i>
09:45	<b>Synthesis and Late-Stage Reducing-end Modification of Heparan Sulfate-like Oligosaccharides Utilising a [2.2.2] Iduronic Lactone</b> <u>Robin Jeanneret</u> , Charlotte E. Dalton, Jordi Bella, Gordon C. Jayson and John M. Gardiner <i>The University of Manchester</i>
10:05	<b>Synthesis of Labelled Heparan Sulfate Oligosaccharides for Single Molecule Investigation of Protein Binding</b> <u>Charlotte E. Dalton</u> , Steven D. Quinn, Robin A. Jeanneret, Laura E. Baltierra-Jasso,

	Aidan Rafferty, Michael J. Morten, Steven W. Magennis and John M. Gardiner <i>University of Manchester</i>
10:25	Coffee Break (Foyer area)
	<b>Session 3 continued: Sugars</b> Session Chair: Peter Seeberger
11:00	<b>Challenges in Oligosaccharide Analysis and Synthesis</b> <u>Nicola Pohl</u> <i>Indiana University</i>
11:45	<b>Naturally inspired peptide therapeutics</b> <u>Alison Hulme</u> <i>University of Edinburgh, UK</i>
12:30	<b>Lunch</b>
	<b>Session 4: Theory &amp; Mechanism</b> Session Chair: Vy Dong
14:00	<b>A Light and Chemically Driven Molecular Machine Imitating the Arm Movements of a Human Breaststroke Swimmer</b> Gebhard Haberhauer, <u>Christoph Burkhart</u> , Sascha Woitschetzki <i>University of Duisburg-Essen</i>
14:20	<b>Computational approach to develop phosphoramidite ligand applied to Rh-catalysed asymmetry cycloisomerization and Cu-catalysed asymmetry conjugate addition</b> <u>Qian Peng</u> and Robert. S. Paton <i>University of Oxford</i>
14:40	<b>Dimerization of Two Alkyne Units: Model Studies, Intermediate Trapping Experiments, and Kinetic Studies</b> <u>Sven Fabig</u> , Gebhard Haberhauer and Rolf Gleiter <i>Universität Duisburg-Essen</i>
15:00	<b>Flash Poster Session (by invitation only)</b>
15:30	<b>Coffee Break and Poster Session (EVEN NUMBERED POSTERS ONLY)</b>
	<b>Session 4 continued: Theory &amp; Mechanism</b> Session Chair: May Copsey
17:00	<b>Transition State Modeling in Asymmetric Cooperative Catalysis: Insights on Mechanism and Stereoselectivity</b> <u>RB Sunoj</u> <i>IIT Bombay</i>
17:45	<b>Close (free evening)</b>

### Wednesday 23 March

	<b>Session 5: Peptides</b> Session Chair: May Copsey
09:00	<b>Organic chemistry applied to proteins: The case of ubiquitination and deubiquitination</b> <u>Ashraf Brik</u> <i>Technion - Israel Institute of Technology</i>
09:45	<b>Chemical Science Lecture</b> <b>Synthetic DNA devices quantitate protein activity in living organisms</b> <u>Yamuna Krishnan</u> <i>University of Chicago</i>

10:30	<b>Coffee Break</b>
	<b>Session 5 continued: Peptides</b> Session Chair: Alison Hulme
11:15	<b>Minute Perturbations of Glutamate 22 in Alzheimer's A<math>\beta</math> Induce Distinct Aggregation Profiles</b> Christopher J. A. Warner, Subrata Dutta, Victoria Klein, Eefei Chen and <u>Jevgenij Raskatov</u> <i>University of California, Santa Cruz</i>
11:35	<b>Imidazole-peptide foldamers: switching of the driving forces within the helix</b> <u>Abdulselam Adam</u> and Gebhard Haberhauer <i>Universität Duisburg-Essen</i>
11:55	<b>Closing Remarks</b>
12:00	<b>Grab-box packed lunch</b>

The Underline denotes the presenting author to whom the affiliation applies