

Project Place

teams include Dr. Balu N. Balasubramanian (previously at Bristol-Myers Squibb, now at Pharma Innovation Sourcing Center, LLC), Dr. William Greenlee (previously at Merck, now at Medchem Discovery LLC) and Dr. Tom Perun from IUPAC Division of Chemistry and Human Health. The ACS Division of Medicinal Chemistry was officially represented by Dr. Joel Barrish (2013 MEDI Chair), Professor Craig Lindsley (MEDI Long-Range Planning Committee, Editor-in-Chief of ACS Chemical Neuroscience), Dr. Nick Meanwell (MEDI Long-Range Planning Committee), and Dr. William Greenlee (MEDI Councilor), all of whom made presentations for the course. The faculty also included Professor Phil Bowen (Mercer University), who currently teaches an ACS Short Course on medicinal chemistry, and several other members of the MEDI Division. A range of topics from fundamentals of medicinal chemistry, to understanding the importance of chemical structure modifications as applied to a) interactions with biological targets, including receptors and enzymes, to elicit desired pharmacological response; b) improve the drugability characteristics such as minimizing any associated toxicology, drug metabolism and pharmacokinetic profile, as well as solubility and stability requirements, were covered. Industry experts also presented case histories of projects to illustrate the nuances involved in the discovery and fine tuning of lead optimization process towards successful clinical and commercial medicines. The four-day course also offered ample opportunities for the participants, from diverse research and academic institutions, to interact in a very productive manner. Each attendee received a certificate of completion signed by representatives of the organizing team, the University and the ACS MEDI Division and IUPAC Division.

In addition, a set of local experts from industry and academia were also present at select sessions with the aim of becoming future lecturers at these sessions. The program was sponsored by grants from IUPAC, ACS Medicinal Chemistry Division, ACS Innovative Grants, Department Science and Technology, India as well as Indian pharmaceutical companies and Contract Research Organizations. Positive feedback from the attendees and their organizations not only warrants the continuation of this program but also highlights the importance of expansion of this program to other Asian and African countries.

For more information, contact Task Group Chair Balu Balasubramanian
<neel.balu@gmail.com>

www.iupac.org/project/2012-032-2-700

Unveiling the Mysteries of Ionic Liquids in Prague

It was a holiday on 4 and 5 November, 2013 for all those who are interested in various aspects of research and applications of ionic liquids. The Institute of Chemical Process Fundamentals (ICPF) of the Academy of Sciences of the Czech Republic hosted professor Christopher Hardacre of Queen's University in Belfast who delivered the 15th E. Hala Lecture *Ionic Liquids: from Structure to Applications* and a subsequent workshop *Focus on Task-Specific Ionic Liquids*.



Audience members listen to the 15th E. Hala Lecture delivered by Christopher Hardacre.

The E. Hala Lectures are an annual event organized at the ICPF in honour of Eduard Hála, thermodynamicist and co-founder of the Institute of Chemical Process Fundamentals. The first Hala Lecture was delivered by Arnošt Reiser, in memoriam of the 80th birthday of Eduard Hála. Prof. Reiser was Hála's long-term friend and colleague, they wrote a seminal textbook on physical chemistry together. Other notable



Christopher Hardacre during the E. Hala Lecture.

Project Place

speakers included Jacob de Swan Aarons, William Smith, and David Avnir.*

Prof. Hardacre's lecture attracted an incredible attendance of almost 100 listeners in a room of 75 seats, and introduced those less familiar with the topic to the fascinating world of ionic liquids. However, the lecture did not speak only to ionic liquid neophytes; even experts in various fields of research related to ionic liquids could get a different perspective of their research, learning e.g. about the successful implementation into industrial practice of using a new ionic liquid as mercury adsorbent in natural gas cleaning. This process, developed by the Queen's University Ionic Liquid Laboratories Research Centre (QUILL) in partnership with Petronas, was recently appraised by the IChemE, winning a total of three IChemE Awards for Innovation and Excellence, including the Outstanding Achievement in Chemical Engineering Award.

A half-day workshop, Focus on Task-Specific Ionic Liquids, was organized the following day, to offer a deeper insight into more specific aspects of ionic liquids properties and applications. A half-day workshop was organized the following day, to offer a deeper insight into more specific aspects of ionic liquids properties and applications; lecturers included Johan Jaquemin (Queen's University Belfast), Zdeněk Wagner (ICPF), Jacobo Troncoso (University of Vigo), Bernd Rathke (University of Bremen), Joanna Feder-Kubis (Wroclaw Polytechnic University). The talks addressed a wide range of topics, from synthesis, over thermodynamic experiments and data evaluation to very specific applications of ionic polymers. They were followed by a round table discussing the issues



Attendees of the Workshop Focus on Ionic Liquids.

related to both basic and applied research on ionic liquids and by a crash course in COSMO-RS for the prediction of properties of ionic liquids.

Judging from the response of the audience, both events were successful ones, bringing together a varied audience that consisted of students, researchers, and academics who will hopefully continue to explore the wealth of the ionic liquids to understand their properties better and to be able to use them efficiently on a larger scale than at present.

* For a complete list of speakers visit www.icpf.cas.cz/en/e-hala-lectures.

Magdalena Bendová bendova@icpf.cas.cz, Institute of Chemical Process Fundamentals of the Academy of Sciences of the Czech Republic is chair of IUPAC project 2011-065-3-500.

www.iupac.org/project/2011-065-3-500

About IUPAC Project System

“The core activity of IUPAC is to provide critical evaluations of methods and data and to make recommendations for nomenclature, terminology, metrology, and measurement standards. This outcome is achieved through projects, via the Project System...The Project System encourages experts worldwide to contribute to this process, regardless of whether or not they are members of IUPAC.”

Kip Powell, CI July 2012 iupac.org/publications/ci/2012/3404/oc.html

More at www.iupac.org/home/projects.html