

**ASMS Conference Workshop:
Applying Ion Mobility to Biological Problems
Ion Mobility MS Interest Group
Presiding: Matt Bush & Erin Baker**

The ion mobility-related material at this year's ASMS started with the ion mobility-mass spectrometry two-day short course given by Prof. Herbert H. Hill, Prof. William Siems, and Prof. Brian Clowers (Washington State University), which remains well attended in its fifth year with ~25 participants. The short course was divided into 8 sections: (1) Overview of IMMS, (2) IMS Theory, (3) Drift Tube IMMS, (4) Dynamic Field IMMS, (5) Orthogonal Field IMMS, (6) Figures of Merit, (7) Collision Cross Sections, and (8) IMMS Applications. The organizers intend to offer this short course again next year.

The interest group was very pleased with the inclusion of three ion mobility focused oral sessions for the 2014 conference: "Ion Mobility Structures in Honor of Mike Bowers' 75th Birthday" (chaired by Gert Von Helden, attended by ~500), "Ion Mobility Separations" (chaired by Stephen Valentine, attended by ~400), and "FAIMS and DMS: New Developments and Applications" (chaired by Randy Purves attended by ~200).

Beyond those in the three dedicated sessions, at least 20 additional presentations during the conference featured ion mobility techniques, data, or instrumentation. Of particular note is that these presentations were included in a diverse range of fundamental and applied sessions, including "Ambient Ionization", "Antibodies and Antibody Drug Conjugates", "Carbohydrates", "Drug Target Discovery and Validation", "Energy, Petroleum, and Biofuels", "Food Chemistry and Safety", "Macromolecular Complexes", "Mass Spectrometry in Structural Biology", "Membrane Proteins", "Metabolomics/Lipidomics", "Nucleic Acids", "Protein-Protein and Protein-Ligand Interactions", and "Space Science, Astrobiology, and Atmospheric Chemistry".

The workshop this year focused on the use of ion mobility MS in biology and took place from 5:45 to 7:00 on Monday, June 16. The workshop began with 3 perspectives on the future of ion mobility MS in biology. Those presentations were followed by a discussed guided by a panel, which consisted of those speakers and representatives from many of the manufacturers of ion mobility MS instruments. Attendees took advantage of the opportunity to ask questions and offer opinions. More than 400 people attended the workshop.

Perspectives on the Future of Ion Mobility MS (10 minutes each)

- Michael Bowers (University of California, Santa Barbara)
- Colin Creaser (Loughborough University)
- Herb Hill (Washington State University)

Panel Discussion

- Michael Bowers (University of California, Santa Barbara)
- Colin Creaser (Loughborough University)
- Kevin Giles (Waters)
- Michael Grössl (TOFWERK)
- Herb Hill (Washington State University)
- Mel Park (Bruker)
- Brad Schneider (AB SCIEX)
- George Stafford (Agilent)
- Danielle Toutoungi (Owlstone)

Respectfully,

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