

Ion Traps: What do they hold for the future?

A workshop hosted by the Ion Trap Interest Group at the ASMS Meeting,
Monday June 4, 2018.

Organized by: Wei Xu and Glen Jackson

Presided by: Glen Jackson

As promised, the workshop began with a unique historical perspective from a legendary ion trapper; Prof. John F.J. Todd. The talk, titled “50 Years in Ion Trap Mass Spectrometry: A Personal Adventure”, contained many interesting stories, twists and turns, which summarized 50 years of ion trap development in Prof. Todd’s group, and elsewhere. Prof. Todd described the friendships, the accidents, the mistakes and the good fortune that accompany every long-term research endeavor. His talk was illuminating, fun and inspiring. We thank Thermo Fisher and WVU office of Research for sponsoring Prof. Todd’s travel to San Diego. We appreciate Prof Todd’s willingness to travel to San Diego, especially after recently celebrating his 81st Birthday.

After the introductory presentation, graduate students from four prominent and active ion trap research groups presented short summaries of their research. The speakers included:

Bojana Opacic, U. Washington, on “Advances in Digital Ion Trap Technology”
Xinwei Liu, Tsinghua University, on “Dual-LIT for Triple Q functions on Mini MS and Ozone Induced Dissociation for Lipid Analysis”
Rachel Mehaffey, UT Austin, on “UVPD and Native MS Proteins in LITs”
James Keating, UNC Chapel Hill, on “DIMS Coupled with Ion Trap MS”

The students gave excellent descriptions of their work.

The workshop closed with interest-group business and a request for recommendations for topics for workshops, Asilomar/Sanibel conferences, ASMS session topics and any other ideas. One idea was to diversify the pool of groups/speakers/capabilities, and to include a wider variety of ion traps (e.g. orbitraps, FTICRs, static traps etc.), and unconventional applications of ion traps, such as in the semi-conductor industry.

A solicitation for nominees for a new chair of the interest group resulted in two excellent candidates, Dr. Desmond Kaplan (Consultant), and Dr. Theresa Evans-Nguyen (USF). We recommend that the two could serve as chair/co-chair of the Ion Trap Interest Group in 2019.

Attendance: start ~79

Peak ~135

End~105