

The 7<sup>th</sup> Annual Workshop of the Undergraduate Research in Mass Spectrometry Interest Group

ASMS 2016, San Antonio, TX, June 5-9 2016

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The interest group sponsored a workshop on “Getting the Most out of Undergraduate Mass Spectrometry Research” on Tuesday, June 7 with a panel discussion designed for undergraduates attending the ASMS meeting and focused on how to leverage undergraduate research experiences into success in graduate school and industry. The panel featured Jessica Moore (Vanderbilt), Anna Susa (UCBerkley), (Purdue) and Allison Galassie (Vanderbilt), and Jacqueline Picache (NIH). Members of the panel each briefly spoke about benefits of undergraduate research and then answered questions on how to facilitate undergraduate mentoring and successful undergraduate experiences, how to leverage an undergraduate research experience in mass spectrometry into the next position. This workshop was attended by ~30 undergraduate students and mentors.

In addition, the Interest Group organized and sponsored a variety of activities at this year’s meeting aimed at undergraduates and faculty at primarily undergraduate institutions.

- 1) “Making the most of ASMS: What to see, hear and do”, a tutorial for Undergraduates and Graduate Students attending ASMS for the first time. This presentation was given Sunday, June 5, 2016 4:00-4:45pm by Professor Elizabeth Stemmler of Bowdoin College. Topics covered included navigating the program, tips on networking, and basics of mass spectrometry. This session saw an increase in attendees compared to last year, with ~75 attendees, about 2/3 graduate students and 1/3 undergraduate students.

Having this included in the flier is probably the reason for increased attendance and we hope that ASMS will continue to include this event. We have 4 people (Elizabeth Stemmler, Allison Dannell, Elaine Marzluff and JC Poutsma) who can present the lecture and a successful set of materials for running this session. **We propose ASMS staff, as they did this year, arrange room and advertise the session and the undergraduate interest group arrange the facilitators and program.**

- 2) Undergraduate Poster Session, Sunday June 5, 2016 during the opening reception. The poster session was organized by Darrin Smith and Dil Ramanathan, featured 33 entries. This session provides undergraduates a valuable opportunity to present their research to multiple experts (judges). The poster session was centrally located near the refreshments, which resulted in many casual attendees beyond just the students and judges involved with the session, resulting in a very well-attended poster session. The undergraduates were also included in the regular poster session, which is important for them to disseminate their results.
- 3) Lunch with the Experts, Monday June 6, 2016. Undergraduates were invited to attend a lunch in the exhibit hall for informal discussions with former ASMS award winners and rising stars. We had good attendance from the students (~25) and experts (8) this year.

## Not part of the report but other things for consideration by ASMS

- 1) Some undergraduates requested that their name tags designate them as undergraduate presenters. This would indicate to those visiting their posters that they may not be at graduate student level when it comes to answering questions, etc. When we asked other undergraduates if they agreed with this sentiment, about 50% agreed and 50% did *not* want this designation. If it were possible, **perhaps an optional “undergraduate presenter” tag (like the “poster presenter” tag) could be offered to those who wanted it.**
- 2) The poster session continues to be a success. Darrin Smith and Dil Ramanathan are willing to continue organizational duties for another year. Having dedicated reception time and food tables has made this a much more successful event for undergraduates. In the past we have had a challenge in figuring out who will be presenting. **This year Cindi (ASMS) sent us the final list of presenters several weeks before the conference, and we made groupings. This worked very well and we would like to continue to do this.**
- 3) **There was interest among PUI professors attending in having a poster session that covers MS pedagogy/ teaching with MS/teaching MS.** The undergraduate interest group is currently set up to support undergraduate members and young mass spectrometrists, but it would also be nice to offer this support to those who are teaching undergraduates and graduate students, as well. This poster session would also be of interest to those at larger institutions who may be teaching MS based graduate courses and could also be a great source for dissemination of results from educational and outreach projects.
- 4) Currently the Undergraduate travel award is under-applied. All students who apply get an award and when I took an informal poll at our interest group session only half of the undergrads even knew about the award. Due to the nature of undergraduate research and funding undergraduate attendees, **we recommend moving the due date for Undergrad travel award applications back several weeks.** The number of applicants is small so we do not believe this would not create a significant burden with respect to the faster turn-around time that would be required.
- 5) There was talk at the interest group chairs meeting about including interest-group based forums on the ASMS website. We imagine that a forum on MS careers/grad school/career development for students would be beneficial. Additionally, a forum on the use of MS in teaching (i.e. a pedagogical forum) would be a great resource for ASMS members and nonmembers at other small schools who want to better include MS in their curriculum.
- 6) Thank you to ASMS for providing the meals for our students and experts. This event continues to be a highlight for all who participated. The round table format and ease of food acquisition was very helpful. Having ASMS staff issue the invitations to the experts worked well.

**Other things for consideration by future leadership:**

- 1) Possible leaders: James Pesavento stated that he was interested in helping the interest group and Dil Ramanathan had expressed interest in being a co-chair in future years.
- 2) Both at the meeting and through email correspondence to our various calls on the interest group for ideas, we have heard interest in setting up mentoring networks and future leaders of the interest group might consider establishing them.
- 3) Like last year, this year we did not have a separate gathering for research directors who work primarily with undergraduates. There was a general consensus through informal discussions that this would be welcome. We may try to establish a gathering of this group next year, whether informal or formal, perhaps with pre-planned topics (e.g. grant writing for RUIs, pedagogy, etc.). The needs of directors and undergraduate students are not always best served in a single workshop, so consideration of how to best serve these different constituencies of the interest group is warranted.