

Announcements

For more information and online registration for any of the conferences listed below, please visit www.asms.org/conferences.

ASMS Fall Workshop Atmospheric Pressure Spray Ionization

November 14 - 15, 2019
Sonesta Philadelphia Hotel
Philadelphia, Pennsylvania
www.asms.org/conferences/fall-workshop

Organizers

Rachel Loo, *UCLA*
Andre Venter, *Western Michigan University*



ASMS Sanibel Conference Unravelling the Exposome

January 23 – 26, 2020
South Seas Island Resort
Captiva Island, Florida
<https://www.asms.org/conferences/sanibel-conference>

Organizers

Jarod Grossman, *Agilent Technologies*
Anthony Macherone, *Agilent Technologies & Johns Hopkins University School of Medicine*



Awards

Recipients of the **2019 Presidential Early Career Award for Scientists and Engineers (PECASE)** include Associate Professor **Amanda Hummon** (Department of Chemistry and Biochemistry at The Ohio State University, Columbus, OH), Assistant Professor **Alexandre Shvartsburg** (Department of Chemistry, Wichita State University, Wichita, KS) and Dr. **Jon Sobus** (National Exposure Research Laboratory, Exposure Methods and Measurements Division, Environmental Protection Agency, Washington, D.C.). The PECASE is the highest honor bestowed by the United States Government to outstanding scientists and engineers who are beginning their independent research careers and who show exceptional promise for leadership in science and technology. Established in 1996, the PECASE acknowledges the contributions scientists and engineers have made to the advancement of science, technology, education, and

mathematics (STEM) education and to community service as demonstrated through scientific leadership, public education, and community outreach. The White House Office of Science and Technology Policy coordinates the PECASE with participating departments and agencies.

Top 10 downloaded articles: January 1 – June 30, 2019

We are pleased to feature the top 10 most downloaded articles from the *Journal of the American Society for Mass Spectrometry* for the period January 1 – June 30, 2019. Collectively, these articles have been downloaded 23,239 times. Congratulations to all of the authors whose articles have been featured.

- Comprehensive Proteoform Characterization of Plasma Complement Component C8 $\alpha\beta\gamma$ by Hybrid Mass Spectrometry Approaches, Franc, V., Zhu, J., Heck, A.J.R. *
vol. **29**, issue 6, 1099-1110 (2018)
- Addressing a Common Misconception: Ammonium Acetate as Neutral pH “Buffer” for Native Electrospray Mass Spectrometry, Konermann, L. **
vol. **28**, issue 9, 1827-1835 (2017)
- The Role of Mass Spectrometry in the Cannabis Industry, Nie, B., Henion, J., Ryona, I.
vol. **30**, issue 5, 719-730 (2019)
- Surface Acoustic Wave Nebulization Produces Ions with Lower Internal Energy than Electrospray Ionization, Huang, Y., Yoon, S.H., Heron, S.R., Masselon, C.D., Edgar, J.S., Tureček, F., Goodlett, D.R. *
vol. **23**, issue 6, 1062-1070 (2012)
- Cyclic Ion Mobility Mass Spectrometry Distinguishes Anomers and Open-Ring Forms of Pentasaccharides, Ujma, J., Ropartz, D., Giles, K., Richardson, K., Langridge, D., Wildgoose, J., Green, M., Pringle, S.
vol. **30**, issue 6, 1028-1037 (2019)
- Improving Precursor Selectivity in Data-Independent Acquisition Using Overlapping Windows, Amodei, D., Egertson, J., MacLean, B.X., Johnson, R., Merrihew, G.E., Keller, A., Marsh, D., Vitek, O., Mallick, P., MacCoss, M.J.
vol. **30**, issue 4, 669-684 (2019)
- pH Effects on Electrospray Ionization Efficiency, Liigand, J., Laaniste, A., Kruve, A. *
vol. **28**, issue 3, 461-469 (2017)

- Adduct Formation in ESI/MS by Mobile Phase Additives, Krueve, A., Kaupmees, K. vol. **28**, issue 5, 887-894 (2017)
- High-Resolution Mass Spectrometry Quantification: Impact of Differences in Data Processing of Centroid and Continuum Data, Vereyken, L., Dillen, L., Vreeken, R.J., Cuyckens, F. vol. **30**, issue 2, 203-212 (2019)
- Untargeted Metabolomics Strategies Challenges and Emerging Directions, Schrimpe-Rutledge, A.C., Codreanu, S.G., Sherrod, S.D., McLean, J.A. vol. **27**, issue 12, 1897-1905 (2016)

* This article also appeared in the top 10 downloaded list for the period July 1 – December 31, 2018

** This article also appeared in the top 10 downloaded list for the period July 1 – December 31, 2018 and for July 1 – December 31, 2017

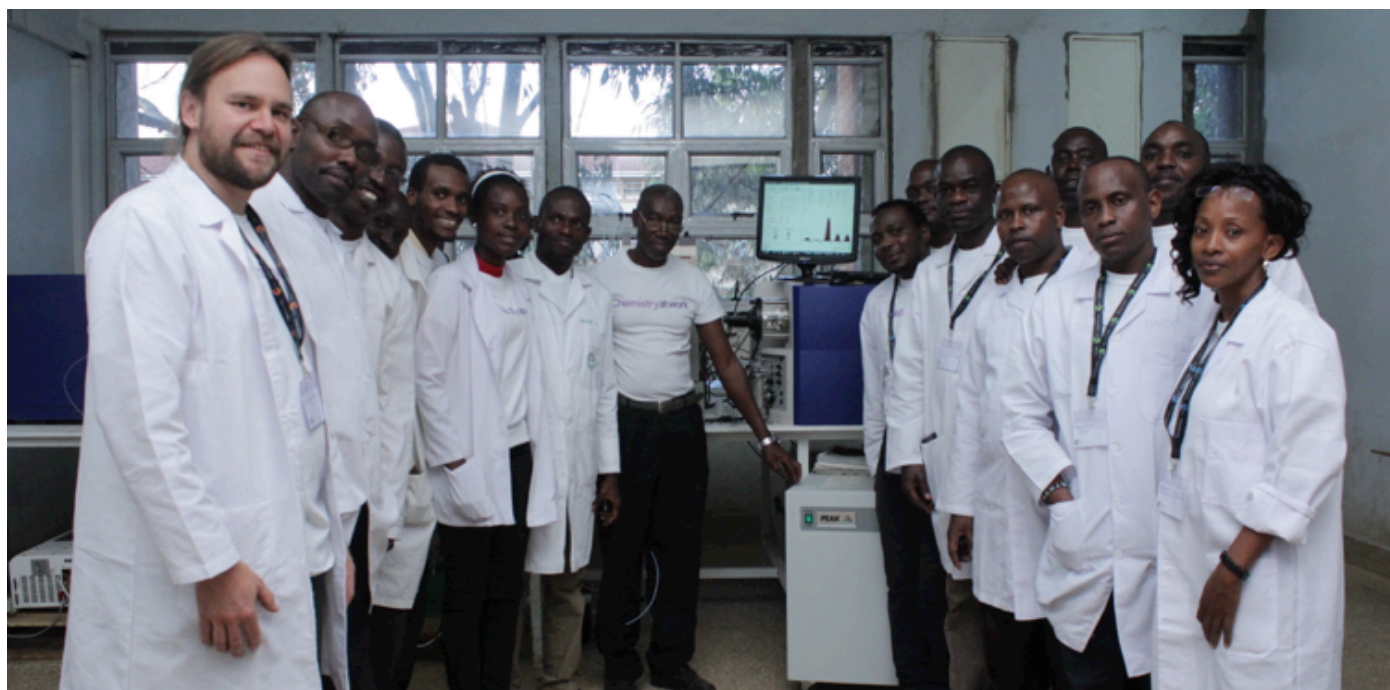
Mass Spectrometry in the Developing World: Supporting Education and Research

For the past three years, workshops at the annual ASMS meetings have included one entitled “Mass Spectrometry in the Developing World: supporting education and research”, organized by Kym Faulk (UCLA), and in 2019 co-organized by Giles Edwards (Founder and Technical Director, Recycling Organization for Research Opportunities, RORO).

Why? When defined in terms of the Human Development Index, the term *Developing World* refers to a composite of life expectancy, education, and per capita income. It is likely that without regional scientists, the *Developing World* cannot foster independent development with respect to these factors, and at the same time recognize and tackle issues arising from the process of development itself. To do so requires a regional and capable scientific infrastructure. However, even the most motivated and accomplished scientists cannot tackle these issues without adequate research instrumentation and, from our point of view, mass spectrometers are exactly that.

The ASMS workshops bring together those who wish to share their ideas on how we as a society can assist in deploying mass spectrometry as a key analytical technique to locally address health, environmental and economic issues in the *Developing World*. Individuals from these countries were, not surprisingly, well-represented at the Workshops. Obstacles that limit the availability of instrumentation in such countries include the fact that a new mass spectrometer purchased in Tanzania, for example, may cost twice the amount one would pay for the same model in the USA. This price increase is due to a protracted supply chain that eventually renders the instrument unaffordable to many universities and government agencies. Other obstacles include lack of training, service infrastructure and points-of-contact until the instrument is established in the research and/or teaching system.

What can be done in order to overcome the challenges presented above? The Workshop attendees made it clear that the goal of bringing mass spectrometry to the *Developing World* is an important step toward addressing the big issues that mankind



1st LC-MS/MS training course at Jomo Kenyatta University of Agriculture and Technology, Kenya in 2017. Participants from many countries across Africa. Mass spectrometer donated by the Waters Corporation, nitrogen generator donated by Peak Scientific, installation, shipping and training completed by RORO funded by the Royal Society of Chemistry in collaboration with GlaxoSmithKline.

is facing, and will be facing, in the future. While the range of applications and developments with new instrumentation is always expanding, it is still possible to carry out important research using instruments that may be slightly more antiquated and deemed redundant by cutting edge standards. Despite their age, these instruments are still the perfect platform to begin training and development of new mass spectrometrists. Hence, one proposal is to distribute an annual notice alerting ASMS members about the efforts of our group that seeks responses about potential equipment available for donation. Working parts from old instruments are also valuable, and even small items such as complete and incomplete PM kits are useful. One of the other most vital potential contributions would be the time of experienced mass spectrometrists. This donation of time can be accomplished via emails, telephone calls, video conferences, and even through site visits for installation and training. Experiences voiced by Faull and Edwards and others made mention of the fact that such efforts often develop into long-lived, even life-long friendships.



Kym Faull lecturing on contemporary chromatography and mass spectrometry at the Congo Basin Institute in Yaoundé, Cameroon in 2017

How? Certainly, such an endeavor needs organized structures. In the United Kingdom, *RORO*, a registered charity, has directed the deployment of many mass spectrometers and chromatography systems to universities in *Developing Countries*. One of the main donors of *RORO* equipment has been the Waters Corporation. Using donated equipment they have, through collaboration with the Royal Society of Chemistry (RSC), facilitated the training of well over 100 scientists from across Africa on LC-MS/MS. The *RSC Pan Africa Chemistry Network* has also facilitated training on GC/MS in collaboration with GlaxoSmithKline. In the USA, *Seeding Labs* has developed an infrastructure that enables companies to donate instrumentation, consumables and skills to universities in *Developing Countries*. Even the annual conference workshop has assisted in helping bring individuals with this shared interest together, allowing us to connect to further the cause.

Next? We must address and overcome the reticence of organizations in the USA (manufacturers, pharmaceutical

companies, etc.) to donate instruments to this effort. The frequently stated reason for this reticence is the liability associated with sending instruments overseas. However, *RORO* in the UK have in place a mechanism that absolves the donating body of any liability or responsibility. *Seedling Labs* in the USA must also have a similar mechanism in place. An annual distribution of this notice on this platform will inform the Society about new developments, news, and will reiterate the request for donations. The goal is to build a sustainable mass spectrometry infrastructure in *Developing Countries*. To this end, we are attempting to build a network of contact persons who are experts on these instruments and who are prepared to share knowledge, time, and expertise.

Interested? An email will suffice to inform how and what you would like to contribute. Contact: giles@roro-uk.org; faull@chem.ucla.edu; hkersten@uni-wuppertal.de

Related Events

ASMS is pleased to offer announcements for other non-profit organizations. Please email details including website to info@asms.org.

December 4 – 7, 2019

32nd Annual Tandem Mass Spectrometry Workshop

Lake Louise, Alberta, Canada

<http://lakelouisemsms.org/>

January 5 – 7, 2020

8th Asia-Oceania Mass Spectrometry Conference

Hong Kong

<http://www.aomsc2020.org/>

February 6 - 9, 2020

25th Annual Lorne Proteomics Symposium

Lorne, Victoria, Australia

<http://www.australasianproteomics.org/25th-annual-lorne-proteomics-symposium-2020/>

March 29 – April 2, 2020

Mass Spectrometry: Applications to the Clinical Laboratory

Palm Springs, CA

<https://www.msaccl.org>

August 29 – September 4, 2020

23rd International Mass Spectrometry Society Conference

Rio de Janeiro, Brazil

<https://www.imsc2020.com/>