

JOHN B. FENN AWARD FOR A DISTINGUISHED CONTRIBUTION IN MASS SPECTROMETRY

2021 RECIPIENT: PETER B. ARMENTROUT
AWARD LECTURE: 4:45 PM, MONDAY, BALLROOM B



The ASMS Award for Distinguished Contribution in Mass Spectrometry honors the memory of John B. Fenn who shared the 2002 Nobel Prize for the development of electrospray ionization. John joined ASMS in 1986 and remained an active member until his passing in 2010. The award is conferred at the ASMS Annual Conference with the presentation of a \$10,000 cash award, a recognition plaque, and the award lecture.

Dr. Peter B. Armentrout is the 2021 recipient of the ASMS John B. Fenn Award for a Distinguished Contribution in Mass Spectrometry, for the development of robust experimental and statistical techniques for the determination of accurate thermochemistry. He developed the guided ion beam threshold dissociation approach to provide insights into the thermochemistry, kinetics, and dynamics of simple and complex chemical reactions. In addition, he developed a suite of software programs for statistically modeling the energy dependence of product formation for most reactive processes. He shared both the instrumentation designs and the software with labs around the world to enable the greater scientific community to study thermochemical processes.

These developments have allowed nearly 2500 distinct bond energies to be measured during his career. The impact of these fundamental measurements has been felt over many fields, including catalysis, biochemistry, surface chemistry, organometallic chemistry, and plasma chemistry.

Dr. Armentrout is the Henry Eyring Presidential Endowed Chair of Chemistry, University of Utah.

AL YERGEY MS SCIENTIST AWARD

2021 RECIPIENTS
AWARD PRESENTATIONS: 4:45 PM, MONDAY, BALLROOM B



The Al Yergey Mass Spectrometry Scientist Award is sponsored by ASMS to recognize dedication and significant contributions to mass spectrometry-based science by “unsung heroes.” This award is named in memory of Al Yergey a well-respected scientist who was known as a dedicated mentor.

Dr. Mark Kushnir is one of two recipients of the 2021 Al Yergey MS Scientist Awards. He is the Scientific Director for Mass Spectrometry Research and Development at the ARUP Institute for Clinical and Experimental Pathology. He spearheaded the adoption of tandem mass spectrometry by ARUP Laboratories and has done exemplary work on developing mass-spectrometry-based clinical assays to be used for patient care, including using desalting columns to purify unbound molecules from plasma samples, leading to a clinical assay for 25-hydroxyvitamin D. He has published more than 100 papers and also been involved with discovery projects and scientific collaborations with many researchers.

Dr. Kushnir has mentored countless people, including R&D colleagues, clinical chemistry fellows and pathology residents. He is an editorial Board Member for many publications and is a regular reviewer for clinical chemistry and analytical chemistry journals and organizations.



Dr. Arpad Somogyi is recipient of the second 2021 Al Yergey MS Scientist Award. He is Associate Director of MS&P facility at the Ohio State University. He has been involved in key research areas including instrument design related to SID, small molecule analysis by FT-ICR, the study of fragmentation mechanisms of protonated peptides, and the structural investigation of proteins and protein substrate interactions. He has authored over 125 scientific publications.

Dr. Somogyi has mentored countless graduate students and post-doctoral fellows. He served as an instructor at an ASMS 2-day short course for 10 years. He also contributes to multiple OSU credit courses and regularly reviews for journals in areas of fundamental topics.

BIEMANN MEDAL**2021 RECIPIENT: NUNO BANDEIRA****AWARD LECTURE: 4:45 PM, TUESDAY, BALLROOM B**

The Biemann Medal is awarded to an individual early in his or her career to recognize significant achievement in basic or applied mass spectrometry. The Medal is conferred at the ASMS Annual Conference with the presentation of a \$5,000 cash award, a recognition plaque, and the award lecture.

Dr. Nuno Bandeira is the 2021 recipient of the ASMS Biemann Medal for significant contributions regarding the development of spectral alignment to connect the world's mass spectrometry data that is leading to the development of a data driven Google-type search engine for mass spectrometry data. Dr. Bandeira realized that similar to the alignment of protein sequences, unidentified MS/MS spectra can be aligned for the identification of modified and unmodified variants of the same peptide. It can also be applied to small molecules to identify drug-related metabolites or analogs.

In order to improve the efficiency of searching these data repositories, Dr. Bandeira created the foundation of a Google search network by precomputing the large-scale network of all available MS/MS data in the MassIVE public mass spectrometry data repository. The master spectral network can now be searched using data instead of text. These molecular networks have been used in hundreds of papers and have been key to understanding mechanisms of metabolic exchange and charting the molecular diversity in human food and habitats, across kingdoms and many microbial species.

Dr. Bandeira is Associate Professor of Computer Science and Engineering at the Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California at San Diego.

2021 RESEARCH AWARDS**AWARD PRESENTATIONS: 4:45 PM, TUESDAY, BALLROOM B**

Research awards promote the research of academic scientists within the first four years of joining the tenure track or research faculty of a North American University at the time the award is conferred. The awards, in the amount of \$35,000 each, are fully supported by Bruker, Thermo Fisher Scientific, and Waters Corporation.

*Sponsored by***BRUKER**

Yansheng Liu
Yale University

*Sponsored by***THERMO FISHER SCIENTIFIC**

Luca Fornelli
University of Oklahoma

*Sponsored by***WATERS CORPORATION**

Xin Yan
Texas A&M University

2021 PRIMARILY UNDERGRADUATE INSTITUTION RESEARCH AWARD**AWARD PRESENTATIONS: 4:45 PM, TUESDAY, BALLROOM B****SPONSORED BY AGILENT TECHNOLOGIES**

This award promotes academic research in mass spectrometry by faculty members and their students at primarily undergraduate institutions (PUIs). The award of \$20,000 is made to the recipient's institution on behalf of the recipient's research.

Christopher Mulligan
Illinois State University

RON HITES AWARD OUTSTANDING RESEARCH PUBLICATION IN JASMS

AWARD PRESENTATIONS: ASMS MEETING, 4:45 PM, WEDNESDAY, BALLROOM B



The Ron Hites Award is for an outstanding publication of original research, based on a paper's innovative aspects, technical and presentation quality, likely stimulation of future research and impact on future applications. The award is named to honor Professor Ron Hites of Indiana University, who led the creation of JASMS in 1988 while president of ASMS. The award includes \$2,000 and certificates.

The 2021 Ron Hites Award recognizes **Michael T. Marty**, University of Arizona, and co-authors Marius M. Kostelic, Alex M. Ryan, Deseree J. Reid, and Jibriel M. Noun for their paper "Expanding the Types of Lipids Amenable to Native Mass Spectrometry of Lipoprotein Complexes" (*J. Am. Soc. Mass Spectrom.* (2019) 30:1416Y1425).

2021 POSTDOCTORAL CAREER DEVELOPMENT AWARDS

AWARD PRESENTATIONS: ASMS MEETING, 4:45 PM, WEDNESDAY, BALLROOM B

Up to five awards in the amount of \$5,000 each are intended to promote the professional career development of postdoctoral fellows in the field of mass spectrometry. Activities funded by these awards include conference and workshop attendance, travel to other mass spectrometry laboratories, purchase of books and/or software. The awards are open to ASMS members who are postdoctoral fellows within three years of completing a Ph.D. or equivalent degree. Applicants must be currently appointed as a postdoctoral fellow in North America (e.g., in academia, industry, a government or national laboratory or at a research institute). Details and an application are posted to asms.org.



Hilary Brown
Naval Air Warfare
Center



Mahmud Iqbal
University of Florida



Sylwia Stopka
The Brigham Young
Women's Hospital



Fernando Tobias
The Ohio State
University



Matthew Waas
Princess Margaret
Cancer Centre



2021 STUDENT TRAVEL AWARDS

AWARD PRESENTATIONS: ASMS MEETING, 4:45 PM, WEDNESDAY, BALLROOM B

2021 GRADUATE STUDENT TRAVEL AWARDS

Linda Berg Luecke, *Medical College of Wisconsin*
 Valentine Courouble, *Scripps Research Institute*
 Roshan Javanshad, *Western Michigan University*
 Benjamin Jones, *The Ohio State University*
 Carter Lantz, *University of California Los Angeles*
 Yangjie Li, *Purdue University*
 Yiran Liang, *Brigham Young University*
 Laura Muehlbauer, *University of Wisconsin-Madison*
 Thao Nguyen, *Princeton University*
 Melanie Odenkirk, *North Carolina State University*
 Crystal Pace, *North Carolina State University*
 Deanna Plubell, *University of Washington*
 Deseree Reid, *University of Arizona*
 David Roberts, *University of Wisconsin-Madison*
 Patric Sadecki, *UNC - Chapel Hill*
 Ian Smith, *University of Washington*
 Dylan Tabang, *University of Wisconsin*
 Shuli Tang, *Texas A&M University*
 Daisy Unsihuay, *Purdue University*
 Tim Van Den Bossche, *Ghent University*

2021 UNDERGRADUATE STUDENT TRAVEL AWARDS

Nancy Abdelrahman, *North Carolina State University*
 Ashish Chakraborty, *University of Texas at Austin*
 Wenya Jian, *Univ. of North Carolina at Chapel Hill*
 Tsach Mackey, *Georgetown University*
 Rajendra Panth, *Western Michigan University*
 Alicia Plourde, *University of Guelph*
 Qiuwen Quan, *University of Wisconsin-Madison*
 Caroline Roycroft, *University of Wisconsin-Madison*
 Anna Rullan Buxo, *Yale University*
 Leighann Weber, *James Madison University*

2020 STUDENT TRAVEL AWARDS

AWARD PRESENTATIONS: ASMS MEETING, 4:45 PM, WEDNESDAY, BALLROOM B

The 2020 student travel awards were not distributed for the virtual conference. These students still meet the eligibility requirements will receive the travel funds to attend this 2021 conference.

2020 GRADUATE STUDENT AWARDS

Kyle Brown, *University of Wisconsin-Madison*
 Edwin Escobar, *University of Texas-Austin*
 Elaura Gustafson, *Brigham Young University*
 Christian Leritano, *Waterloo University*
 Miyang Li, *University of Wisconsin-Madison*
 Bailey Rose, *Vanderbilt University*
 Pei Su, *Purdue University*
 Conner Harper, *University of California, Berkeley*
 Allyson Mellinger, *North Carolina State University*
 Melissa Pergande, *University of Illinois - Chicago*
 Baiyi Quan, *Duke University*
 Joshua Salem, *University of Michigan*
 Yekaterina Kori, *University of Pennsylvania*

2020 UNDERGRADUATE STUDENT AWARDS

Kristie Baker, *Florida Institute of Technology*
 Rebecca Cain, *Indiana-Purdue Indianapolis*



Consult online planner or mobile app for detailed program. Also includes content for in-person and remote posters.