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. 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 have 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.

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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 Biemann Medal was established by contributions to honor Professor Klaus Biemann. The Medal is conferred at the ASMS Annual Conference with the presentation of a $5,000 cash award, engraved medal, 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.
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 Award. 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.

The Ron Hites Award recognizes an outstanding publication of original research based on innovative aspects, technical and presentation quality, and likely stimulation of future research or 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 to the principle author and certificates.


Dr. Marty (top) and Marius Kostelic
2021 AWARDS

Research Awards

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 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**
  - Xin Yan
  - Texas A&M University

Research At Primarily Undergraduate Institutions (PUI) Award

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.

- **Sponsored by Agilent**
  - Christopher Mulligan
  - Illinois State University

Postdoctoral Career Development Awards

Postdoctoral Career Development Awards in the amount of $5,000 to promote professional career development of postdoctoral fellows in the field of mass spectrometry.

- **Hilary Brown**
  - Naval Air Warfare Center

- **Iqbal Mahmud**
  - University of Florida

- **Sylvia Stopka**
  - Brigham and Women’s Hospital

- **Fernando Tobias**
  - The Ohio State University

- **Matthew Waas**
  - Princess Margaret Cancer Centre