



Announcements

61st ASMS Conference on Mass Spectrometry and Allied Topics

June 9 - 13, 2013

Short Courses, June 8 and 9, 2013

Minneapolis Convention Center, Minneapolis, MN

www.asms.org

ASMS Members and 61st ASMS Conference Registrants

Conference proceedings are online beginning July 15, 2013.

- Search by session and authors
- View full PDF of oral and poster presentations

Restricted to 61st ASMS Conference Registrants only

Web casting of all conference oral presentations.

- Presentations are online now until September 13, 2013
- The ID from your badge barcode is required

ASMS Asilomar Conference Mass Spectrometry in Environmental Chemistry, Toxicology, and Health

October 18 - 22, 2013

Asilomar Conference Center
Pacific Grove, California

Organizer

Xingfang Li, University of Alberta



The Conference will showcase recent advances in bridging mass spectrometry technology development and environmental chemistry, toxicology, and health research. Mass spectrometry plays a pivotal role in advancing the understanding of the environment and human/ecological health. Conversely, research in environmental and health sciences further pushes the frontiers of mass spectrometry technology and method development. Linking these aspects, this symposium will facilitate multidisciplinary exchange and explore collaborative opportunities in analytical and environmental chemistry, toxicology, and health research.

The focus will be on environmental contaminants of health importance, as well as biomarkers of exposure and effects. Analytical challenges and advances in developing biomarkers of exposure and effect will be discussed. Highlights will include mass spectrometry applications to studies of human and ecological exposure and health effects from emerging environmental contaminants. Poster and hot topic oral presentations from

academic, government, and industry scientists are welcome to complement with the invited contributions in analytical and environmental chemistry, toxicology, and health research.

Confirmed Invited Speakers

- Damia Barcelo, IDAEA-CSIC (Spain)
- Ben Blount, Centers for Disease Control and Prevention
- Norm Dovichi, University of Notre Dame
- Enrico Davoli, Mario Negri Institute (Italy)
- Jennifer Field, Oregon State University
- Chris Gil, Vancouver Island University
- Gary Glish, University of North Carolina
- Guibin Jiang, Chinese Academy of Sciences
- Tammy Jones-Lepp, U.S. EPA
- Cynthia Larive, University of California-Riverside
- Chris Le, University of Alberta
- Scott Mabury, University of Toronto
- Bill Mitch, Stanford University
- Joel Pedersen, University of Wisconsin-Madison
- Michael Plewa, University of Illinois
- Jerald L. Schnoor, University of Iowa
- John Sumpter, Brunel University (UK)
- Heather Stapleton, Duke University
- Jeanne Vanbriesen, Carnegie Mellon University
- Xiangru Zhang, Hong Kong University of Science and Technology

In addition to the invited speaker presentations the program will be complemented with hot topic oral and poster presentations.

Important Deadlines

- August 3 - Student Travel Stipend
- September 7 - Abstracts
- September 7 - Registration

www.asms.org/conferences/asilomar-conference

ASMS Fall Workshop Imaging Mass Spectrometry

November 7 - 8, 2013

Doubletree Hotel
Chicago, Illinois

Organizers

Michelle L. Reyzer, Vanderbilt University
Demian R. Ifa, York University



The workshop will cover the field of imaging mass spectrometry as it is practiced today. SIMS, MALDI, and recent ambient ionization methods such as DESI, LAESI and LMJSSP will be examined with regards to generating sensitive and molecularly specific images from biological samples. Issues such as sample preparation, laser/beam and instrumental parameters, spatial resolution, and analyte-specific considerations (small molecule, peptide, protein) will be discussed. See announcement to follow for more details.

www.asms.org/conferences/fall-workshop

ASMS Sanibel Conference
Ion Activation: Fundamentals, Applications and New Frontiers
January 30 - February 2, 2014
Hilton Clearwater Beach Resort
Clearwater Beach, FL



Organizers
Ryan Julian, UC Riverside
Richard Vachet, UMASS, Amherst

ASMS Awards

ASMS sponsors these prestigious annual awards. See announcement to follow for more details.

The Award for a Distinguished Contribution in Mass Spectrometry recognizes a focused or singular achievement in fundamental or applied mass spectrometry. 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. **2013 recipient is Richard D. Smith**, Battelle Fellow and Chief Scientist in the Biological Sciences Division and Director of Proteomics Research at Pacific Northwest National Laboratory (PNNL)

The Biemann Medal is awarded to an individual early in his or her career (within 15 years of the Ph.D.) in recognition of significant achievement in basic or applied mass spectrometry. The Biemann Medal was established by contributions from students, postdoctoral associates and friends to honor Professor Klaus Biemann. The award is conferred at the ASMS Annual Conference with the presentation of a \$5,000 cash award, the Biemann Medal, and the award lecture. **2013 recipient is Yinsheng Wang**, Professor of Chemistry at the University of California-Riverside

ASMS Research Awards are intended to promote academic research by young scientists in mass spectrometry. The Awards are open to academic scientists within four years of joining the tenure-track or research faculty in a North American university. The awards are fully funded by Thermo Scientific and Waters Corporation in the amount of \$35,000 each. **2013 recipient of the Thermo Scientific sponsored Research Award is Yu Xia**, Purdue University. **2013 recipient of the Waters Corporation sponsored Research Award is Matthew F. Bush**, University of Washington.

The Ron Hites Award recognizes an outstanding presentation of original research in *JASMS*. Selection is based on a paper's innovative aspects, technical quality, likely stimulation of future research, likely impact on future applications, and quality of presentation. The award is named in honor of Professor Ron Hites of Indiana University, who led the creation of *JASMS* in 1988 while president of ASMS. The corresponding author receives a cash award of \$2,000 and all authors are acknowledged with certificates of commendation. **The 2013 award recognizes Alexander W. G. Graham; Steven J. Ray; Christie G. Enke; Charles J. Barinaga; David W. Koppenaal; Gary M. Hieftje** for "First Distance-of-Flight Instrument: Opening a New Paradigm in Mass Spectrometry."

Awards

Professor **Carol Robinson**, Professor of Physical Chemistry, University of Oxford was appointed Dame Commander of the Order of the British Empire (DBE) in the 2013 New Year Honours for services to science and industry. Professor Robinson is widely recognized for her ground-breaking research in mass spectrometry and as a role model for women scientists. Her awards and medals include the 2003 Biemann Medal from the American Society for Mass Spectrometry, the 2004 Rosalind Franklin Award and the 2010 Davy Medal from the Royal Society, and the 2008 Anfinsen Award from the Protein Society. In recognition of her contribution to science she was also awarded the 2011 FEBS/EMBO Woman of the Year.

Professors **Michael Gelb** and **František Tureček** from the Department of Chemistry at the University of Washington have been awarded the Gustavus John Esselen Award for Chemistry in the Public Interest from the Northeastern Section of the American Chemical Society, for their work in developing a sensitive, specific, and inexpensive technique for detecting genetic diseases in newborns. Using the fact that certain errors in metabolism can be detected by enzymatic assays, their multiplex assay technique uses tandem mass spectrometry to identify several rare, genetic diseases such as lysosomal storage diseases using blood samples that are already routinely collected.

Professor **Howard R Morris**, Imperial College London has been awarded the 2012 Franklin medal and prize, for his contributions to mass spectrometer design and its applications in peptide sequencing and proteomics. The award is given biennially by the Institute for Physics, UK for distinguished research in physics applied to the life sciences including medical and biological physics.

Professor **Akos Vertes** from the Department of Chemistry at The George Washington University has been awarded the 2012 Hillebrand Prize by the Chemical Society of Washington (the Washington section of the ACS) for his innovative work in discerning fundamental processes in MALDI and Electrospray mass spectrometry and their applications in proteomics research and in vivo imaging.

Michael L. Gross, Professor of Chemistry, Medicine, and Immunology at Washington University in St. Louis, Principal Investigator of the NIH Mass Spectrometry Research Resource

at Washington University, and Editor-in-chief of the *Journal of the American Society for Mass Spectrometry*, has been awarded the 2013 Eastern Analytical Symposium (EAS) Award for Outstanding Achievements in Mass Spectrometry.

People and Places

The Journal welcomes eight new Editorial Board members for 2013.

- **Peter B. Armentrout**, University of Utah, USA
- **Stephen J. Blanksby**, University of Wollongong, Australia
- **Kathrin Breuker**, University of Innsbruck, Austria
- **David E. Clemmer**, Indiana University, USA
- **Ron M. A. Heeren**, FOM Institute AMOLF, The Netherlands
- **Kenzo Hiraoka**, University of Yamanashi, Japan
- **Victor Ryzhov**, Northern Illinois University, USA
- **František Tureček**, University of Washington, USA

Members serve a six-year term, and are invited by the ASMS Board of Directors based on several criteria including being a frequent contributor and reviewer for the Journal. Duties of Editorial Board members include active support of the Journal's editorial functions, i.e., reviewing manuscripts, encouraging submissions to *JASMS*, creative input, and participation in the annual Editorial Board meetings that are held during the ASMS Conference.



A representative photograph of new Editorial Board member Kathrin Breuker, working in her office at the University of Innsbruck, Austria

Related Events

ASMS is pleased to announce meetings of nonprofit organizations. Please email details including website to cindi@asms.org. Visit www.asms.org for additional listings.

July 7 - 13, 2013

**Mass Spectrometry in Biotechnology and Medicine
Summer School**
Dubrovnic
www.msbm.org/Home.html

July 14 - 18, 2013

**Conference on Innovations in Mass Spectrometry
Instrumentation**
St. Petersburg, Russian Federation
www.innms2013.org/

July 21 - 23, 2013

Mass Spectrometry Special Interest Group (MS-SIG)
Berlin, Germany
www.igenomed2.stanford.edu/Proteomics2013_mssig/index.html

August 12 - 16, 2013

Symposium on Mass Spectrometry, Proteomics and Peptidomics
Cancún, Mexico
www.smp.bioprocess.org/

September 15 - 18, 2013

The 9th Harsh-Environment Mass Spectrometry (HEMS) Workshop
Don CeSar Beach Resort, St. Pete Beach, FL
www.hems-workshop.org

September 15 - 20, 2013

International Mass Spectrometry School
Siena, Italy
This School inaugurates a new, important activity of IMSF in the field of higher education in mass spectrometry, and will select the best 100 “student” applications from all over the world. Fellowships are available.
www.imss2013.it

September 29 - October 4, 2013

SCIX 2013 presented by FACSS
Hyatt Regency Hotel and Delta Center, Milwaukee, WI
www.scixconference.org

December 4 - 7, 2013

Annual Tandem Mass Spectrometry Workshop
Lake Louise, Alberta, Canada
www.lakelouisemsms.org/

August 24 - 29, 2014

2014 IMSC
Geneva, Switzerland
www.imsc2014.ch



ASMS AWARDS

AWARD FOR A DISTINGUISHED CONTRIBUTION IN MASS SPECTROMETRY

2013 RECIPIENT: RICHARD D. SMITH



The increasing role of mass spectrometry (MS) in the physical and biological sciences can be attributed in a large part to the versatility afforded by the growing number of ionization methods and to mass spectrometry's increasing sensitivity. The development of the electrodynamic ion funnel in the laboratory of Dr. Richard Smith has been an important factor in the latter increase.

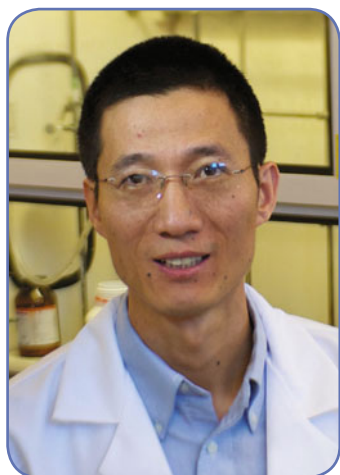
The ion funnel was originally created in the Smith lab in 1997 to replace ion transmission-limited skimmers and to efficiently capture ions in the expanding gas jet while radially focusing them. It has been adapted for a variety of uses and has proven to be a broadly applicable tool for ion focusing and manipulation at elevated pressures that challenged conventional approaches. Although it has undergone several iterations in the last 15 years, the defining features of the ion funnel have not changed: closely spaced ring electrodes of gradually decreasing inner diameter, out-of-phase RF potentials applied to adjacent electrodes, and a longitudinally-applied DC gradient. The ion funnel concept continues to be adapted in a growing number of applications such as ion trapping, ion

cooling, low pressure electrospray, and ion mobility spectrometry; however, its original use, decreasing ion losses in the interface of high pressure sources, has remained its most prevalent. Currently, the funnel is employed by Bruker Daltonics' and Agilent Technologies and similarities can be seen in Thermo-Fisher's recent S-lens design found on the newer generations of Orbitrap instruments. In the ion funnel, Dr. Smith's obsession with sensitivity has provided a basis to greatly improve mass spectrometers, today allowing routine detection of low concentration species that would have been undetectable 15 years ago.

Dr. Richard Smith is Battelle Fellow and Chief Scientist in the Biological Sciences Division and Director of Proteomics Research at Pacific Northwest National Laboratory (PNNL).

BIEMANN MEDAL

2013 RECIPIENT: YINSHENG WANG



Dr. Yinsheng Wang has focused his research on discovering the biological consequences of DNA damage and on unraveling mechanisms of action for anti-tumor drugs and environmental toxicants. His laboratory's use and development of mass spectrometry, synthetic organic chemistry, biochemistry and molecular biology enables us to understand and quantify, at the molecular level, how various DNA damage products are repaired, and how they perturb the efficient flow and fidelity of genetic information during DNA replication and transcription.

Professor Wang has identified and characterized new DNA lesions, including bulky lesions induced by reactive oxygen species. His laboratory developed LC-MS/MS combined with a plasmid-based shuttle vector to quantitatively assess how structurally defined DNA lesions alter the frequency and efficiency of DNA replication and transcription in cells, and to measure the types and frequencies of mutations induced by lesions. They also discovered that N-2-(1-carboxyethyl)-2'-deoxyguanosine (N-2-CEdG) is the major stable DNA adduct derived from methylglyoxal, and demonstrated

that it is the previously unknown endogenous substrate for DinB (polymerase IV). Dr. Wang's new methods have provided some long-sought biomarkers for oxidative stress: cyclopurine lesions including 8,5'-cyclo-2'-deoxyadenosine and 8,5'-cyclo-2'-deoxyguanosine.

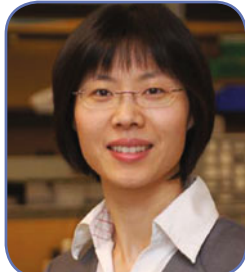
Dr. Yinsheng Wang is Professor of Chemistry at the University of California-Riverside.



ASMS RESEARCH AWARDS

The Research Awards are fully funded by Thermo Scientific and Waters Corporation in the amount of \$35,000 each.

Sponsored by
THERMO SCIENTIFIC



Yu Xia
Purdue University

Sponsored by
WATERS CORPORATION



Matthew F. Bush
University of Washington

CALL FOR 2014 RESEARCH AWARD PROPOSALS

- OBJECTIVE** To promote academic research by young scientists in mass spectrometry.
- ELIGIBILITY** Open to academic scientists within four years of joining the tenure-track or research faculty in a North American university. Applicants may not have previously received an award under this program.
- APPLICATION** Applicants should submit the following no later than November 30.
 1. Three-page proposal, including references and figures
 2. One-page fiscal proposal and justification
 3. List of current research support
 4. *Curriculum vitae*
 5. Two letters of recommendation may be e-mailed directly to ASMS: office@asms.org
- DEADLINE** Application materials 1-4 should be arranged in order and assembled as one PDF and emailed to office@asms.org. File may not exceed 5 MB.
- FISCAL** The awards of \$35,000 each will be made to a university in the name of the selected individual for the researcher's exclusive use. In accepting this award, the institution will agree to not charge overhead on the funds.
- INFORMATION** Contact ASMS. Telephone: (505) 989-4517 • office@asms.org

RON HITES AWARD FOR OUTSTANDING RESEARCH PUBLICATION IN JASMS



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Left to right: Steven J. Ray, Gary M. Hieftje, and Alexander W. G. Graham

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Charles J. Barinaga, David W. Koppenaar, and Christie G. Enke



Sponsored by
American Society for
Mass Spectrometry

Conference Organizer

Xing-Fang Li
University of Alberta

IMPORTANT DEADLINES

August 3

Student Travel Stipends

September 7

Abstracts for Posters and Hot
Topic Orals

September 7

Registration and
Asilomar Accommodations

Asilomar

29th Asilomar Conference on Mass Spectrometry

Mass Spectrometry in Environmental Chemistry, Toxicology and Health

October 18 - 22, 2013

ASILOMAR CONFERENCE CENTER, PACIFIC GROVE, CALIFORNIA

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CONFIRMED INVITED SPEAKERS

Damia Barcelo, *IDAEA-CSIC (Spain)*

Ben Blount, *Centers for Disease Control
and Prevention*

Norm Dovichi, *University of Notre Dame*

Enrico Davoli, *Mario Negri Institute (Italy)*

Jennifer Field, *Oregon State University*

Chris Gill, *Vancouver Island University*

Gary Glish, *University of North Carolina*

Guibin Jiang, *Chinese Academy of Sciences*

Tammy Jones-Lepp, *U.S. EPA*

Cynthia Larive, *University of California-Riverside*

Chris Le, *University of Alberta*

Scott Mabury, *University of Toronto*

Bill Mitch, *Stanford University*

Joel Pedersen, *University of Wisconsin-Madison*

Michael Plewa, *University of Illinois*

Jerald L. Schnoor, *University of Iowa*

John Sumpter, *Brunel University (UK)*

Heather Stapleton, *Duke University*

Jeanne Vanbriesen, *Carnegie Mellon University*

Xiangru Zhang, *Hong Kong University of
Science and Technology*

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FALL WORKSHOP 2013

Imaging Mass Spectrometry

Sponsored by
American Society for
Mass Spectrometry

Organizers

Michelle L. Reyzer
Vanderbilt University

Demian R. Ifa
York University

Important Dates

October 2
Student Stipends

October 4
Registration

October 7
Hotel Reservations

November 7 - 8, 2013
DOUBLETREE BY HILTON • CHICAGO, IL

This workshop will cover the field of imaging mass spectrometry as it is practiced today. SIMS, MALDI, and ambient ionization methods such as DESI, LAESI and LMJ-SSP will be examined with regards to generating sensitive and molecularly specific images from biological samples. Issues such as sample preparation, laser/beam and instrumental parameters, spatial resolution, and analyte-specific considerations (small molecule, peptide, protein) will be discussed.

Two-day program will include

- SIMS: Cluster/Polyatomic Ion Beams Instrumentation and Imaging Applications
- SIMS: Lipid Membranes and Cell Analysis
- TOF-SIMS: Biological and Artwork Analysis
- Sample Preparation for MALDI Imaging
- MALDI Imaging with Ion Traps – Focus on Lipids
- MALDI Imaging of Small Molecules/Quantitation
- Sample Prep for MALDI Imaging; Imaging of Small Molecules
- MALDI Imaging with TOFs – Focus on Proteins
- Imaging of Peptides in Brain Tissue
- On-Tissue Protein Identification Strategies
- Protein and Peptide Imaging with MALDI
- Tools for Visualization and Software Developments
- Liquid-Extraction and Thermal Desorption, LMJ-SSP Instrumentation and Imaging Applications
- Laser Desorption, LAESI Instrumentation and Imaging Applications
- Spray based Desorption, DESI Instrumentation and Imaging Applications
- Atmospheric Pressure Ionization Source Imaging
- Protocols and Standardization of MSI



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