

NEWS AND VIEWS



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Announcements

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

ASMS Asilomar Conference Quantitative Analysis of Posttranslational Modifications by Mass Spectrometry

November 2 - 6, 2018

Asilomar Conference Center
Pacific Grove, California

<http://www.asms.org/conferences/asilomar-conference/asilomar-conference-homepage>



Organizers

Nicolas L. Young, *Baylor College of Medicine*
Heather Desaire, *University of Kansas*

ASMS Fall Workshop Metabolomics Informatics

November 29 - 30, 2018

Hilton Financial District
San Francisco, California

<http://www.asms.org/conferences/fall-workshop>



Organizers

Erin Baker, *Pacific Northwest National Laboratory*
Gary Patti, *Washington University at St. Louis*

ASMS Sanibel Conference Chemical Cross-linking and Covalent Labeling: From Proteins to Cellular Networks

January 24 - 27, 2019

Hilton St. Petersburg Bayfront Hotel
St. Petersburg, Florida

<http://www.asms.org/conferences/sanibel-conference/sanibel-conference-homepage>



Organizers

Andrea Sinz, *Martin-Luther University Halle-Wittenberg*
Richard Vachet, *University of Massachusetts, Amherst*
Lan Huang, *University of California, Irvine*

Awards



Donald F. Hunt

Donald F. Hunt, the University Professor of Chemistry and Pathology at the University of Virginia, is the recipient of the **2018 *Journal of Proteome Research* Distinguished Achievement in Proteomics Award** from the **US Human Proteome Organization (USHUPO)**. Professor Hunt received the award in recognition of his pioneering work over the past four decades to develop mass spectrometry-based methods and instrumentation that set the standard for ultrasensitive

detection and characterization of proteins and peptides, and that provided the foundation for the field of proteomics. The award presentation and lecture was given at the US HUPPO 2018 conference held March 11 – 14 in Minneapolis, MN.

Hannes Röst, Assistant Professor in the Department of Molecular Genetics and the Donnelly Centre for Cellular & Biomolecular Research at the University of Toronto, received the **2018 Gilbert S. Omenn Computational Proteomics Award** from the **US Human Proteome Organization (USHUPO)**. Prof. Röst was recognized for his development of the “OpenSWATH” software pipeline that produces a comprehensive, targeted analysis of SWATH-MS



Hannes Röst

data and aligns multiple such runs to produce an accurate and complete proteomics data matrix. The award presentation and talk was given at the US HUPPO 2018 conference held March 11 – 14 in Minneapolis, MN. Prof. Röst obtained a BSc. degree in Biochemistry (2008) and a MSc. in Bioinformatics (2010) from ETH Zurich, followed by Ph.D. (2010-2014) and postdoctoral (2015) research in the laboratory of Professor Ruedi Aebersold at ETH Zurich, where he developed novel computational methods to analyze mass spectrometry-based proteomics data, including OpenSWATH. He then joined the lab of Prof. Mike Snyder at Stanford University as a postdoctoral researcher to apply his work in the area of personalized medicine, with a focus on developing computational tools for handling, managing and analyzing large, heterogeneous and longitudinal datasets. Since joining the University of Toronto in September 2017, his research explores the capability of novel mass spectrometric methods to

obtain highly quantitative proteomics and metabolomics data matrices, and to use these quantitative data to address questions in systems biology and personalized medicine.



Leslie M. Hicks

Leslie M. Hicks, Assistant Professor in the Department of Chemistry at the University of North Carolina, Chapel Hill is the recipient of the **2018 Robert J. Cotter New Investigator Award** from the **US Human Proteome Organization (USHUPO)**. The Hicks laboratory focuses on the development and implementation of mass spectrometric approaches for protein characterization, including post-translational modifications, to understand how metabolic control is

achieved in photosynthetic cells to regulate the flow of fixed carbon from basic functions like cell proliferation to alternative pathways such as production of storage compounds, and specifically how intracellular signaling governs these processes. Prof. Hicks received a BSc. degree in Chemistry at Marshall University (summa cum laude) in 2001 and a Ph.D. in Analytical Chemistry from the University of Illinois, Urbana-Champaign in 2005, where she was the recipient of an NSF Graduate Research Fellowship. From 2006-2012, she was appointed as Director of Proteomics & Mass Spectrometry and Assistant Member and Principal Investigator at the Donald Danforth Plant Science Center, and Adjunct Professor in the Department of Biology at Washington University in St. Louis, MO, prior to her joining the University of North Carolina, Chapel Hill in 2013. She received an NSF CAREER Award in 2015, and was a member of the American Society for Mass Spectrometry (ASMS) Publications Committee from 2014-2016. The award presentation and talk was given at the US HUPO 2018 conference held March 11 – 14 in Minneapolis, MN.

Glen P. Jackson, the Ming Hsieh Distinguished Professor of Forensic and Investigative Science at West Virginia University (WVU), has been promoted to the rank of **Fellow of the American Academy of Forensic Sciences (AAFS)**. The promotion to Fellow recognizes individuals actively engaged in the field of forensic science who have made significant contributions in research, teaching continuing education, professional development and other trainings and service to the forensic science community. As a Fellow, Prof. Jackson will present new research at the 2019 AAFS Annual Scientific Meeting. Jackson's research interests include mass spectrometry instrumentation development and forensic and biological applications of mass spectrometry. His previous forensic science-related research has included the analysis of drugs, hair, ignitable liquid residues, explosives, synthetic cannabinoids and isotope ratio mass spectrometry. Prof. Jackson



Glen Jackson

earned a BSc. (Hons) degree in Chemical and Analytical Science from the University of Wales Swansea (UK), an M.S. degree in Analytical Chemistry from Ohio University, and a Ph.D. in Analytical Chemistry from WVU. He then spent 4 years as a researcher at Oak Ridge National Laboratory (ORNL) before being appointed as an Assistant Professor of Chemistry and Biochemistry at Ohio University in 2004, where he was promoted to Associate Professor in 2009 and appointed as Director of the FEPAC-accredited Forensic Chemistry Program from 2009-2012. He returned to WVU in 2012. Prof. Jackson received an NSF CAREER Award in 2008. He is currently Co-Chair of the ASMS Ion Trap Interest Group and workshop coordinator, and was Co-Organizer and Program Co-Chair for the 2015 ASMS Sanibel Conference on Forensic and Security Applications of Mass Spectrometry. In 2017, he was named a Fellow of the Royal Society of Chemistry (RSC). To date, his group's research has appeared in more than 60 publications, more than 100 conference and university presentations and two issued patents.

ASMS Postdoctoral Career Development Awards: 'Where are they now'?

Since 2014, the ASMS has annually presented up to five Post-doctoral Career Development Awards. The purpose of these awards is to promote the professional career development of postdoctoral fellows in the field of mass spectrometry. In this "Where are they now" Q&A feature, we are pleased to highlight the variety of activities that these awards have enabled for the recipients, and their current (and future) career trajectories.

Catherine Going (2016 awardee)

What professional career development activities did you pursue using the funds from your award?

I was able to present my work at four different conferences in the last year, including the American Association for Cancer Research annual meeting, where I was able to gain insight into the needs and challenges in cancer treatment in the clinic, as well as where mass spectrometry fits, in an ever-increasing role, into the discovery of cancer biomarkers and the improvement of modern diagnostics and therapies. I was also able to learn several new methods for data analysis and presentation after purchasing several textbooks and software packages with the award.



Catherine Going

Where are you now? i.e., have you moved to another institution or position since receiving the award? If so, what is your new role?

I am a postdoc in Sharon Pitteri's Lab at the Canary Center for Cancer Early Detection at the Stanford University School

of Medicine. Our group uses proteomics to identify novel markers of cancer status, progression, and recurrence using both clinical samples (blood, tissue, and interstitial fluid) and laboratory samples (cell lines and mouse models of cancer). We are particularly interested in the role of aberrant glycosylation in cancer and its utility as a marker for cancer status, and we are actively developing strategies for glycoprotein and glycopeptide enrichment and characterization.

What are your current research interests?

I am currently interested in studying the mechanism of action of novel chemotherapeutic agents that are synthetic analogues of natural products with anti-cancer activity. With this information, we can hopefully optimize the structure of the natural product to have higher specificity and higher potency for malignant cells. I am also interested in profiling the glycosylation of proteins in triple negative breast cancer, a highly heterogeneous disease that affects ~15% of all patients diagnosed with breast cancer and is marked by high metastasis and recurrence rates. In my research, I hope to help stratify triple negative breast cancer into identifiable subtypes for which more personalized treatments can be developed.

Where do you see yourself (career wise) in 3-5 years?

I plan on going into the biotech industry to help develop novel diagnostics and therapeutics that have a positive impact on the lives of those who suffer from acute or chronic disease. I am particularly passionate about studying cancer and neurodegenerative diseases, which affect every family at some point, and autoimmune diseases, with which many suffer in silence.

John ‘Jack’ Cahill (2016 awardee)



John ‘Jack’ Cahill

What professional career development activities did you pursue using the funds from your award?

I used the ASMS Postdoctoral Career Development Award funds to attend the 21st International Mass Spectrometry Conference (IMSC), “Emerging Tools and Applications in Mass Spectrometry”, in Toronto from August 20-26, 2016. There I gave talks on ‘High Spatial Resolution Laser Ablation/Sampling Under Ambient Conditions using a Hybrid Laser Microdissection/Liquid Vortex Capture/Mass Spectrometry System’ and ‘Direct Liquid Extraction Approaches to Sample Analysis’ in the Innovations in Mass Spectrometry Instrumentation and Novel High Throughput Techniques sections, respectively. Additionally, I presented a poster entitled ‘On-line, absolute quantitation of analytes from 20-40 μm microdissections by laser microdissection-liquid vortex capture-mass spectrometry’. It was a busy but constructive conference. The network that I developed there has been incredibly useful to me and my career and I would not have been able to attend the conference without the funds provided by the ASMS. The award funds also allowed me to attend PittCon in Chicago in

March, 2017. There I gave a presentation, ‘Multimodal Physical and Chemical Imaging Using an AFM/IR/MS Platform’. Additionally, the funds were used to attend the classes ‘Lab-on-a-Chip Devices I and II’ at PittCon. These classes gave an introduction to microfluidic technologies and approaches. This was extremely helpful in developing new research ideas, which I used when applying for positions beyond my postdoc.

Where are you now? i.e., have you moved to another institution or position since receiving the award? If so, what is your new role?

I have accepted a new position since receiving the award, as R&D Associate Scientist - Mass Spectrometry at Oak Ridge National Laboratory.

What are your current research interests?

My current research interests include quantitative mass spectrometry imaging, single cell mass spectrometry, and development/implementation of novel mass spectrometry sampling methodologies.

Where do you see yourself (career wise) in 3-5 years?

In the next 3-5 years I see myself continuing along my research path and while assuming more leadership responsibilities at the lab.

Mass Spectrometry Tutorial Videos

As a resource to the community, and to provide information for those interested in learning more about fundamental and applied aspects of mass spectrometry, ASMS is compiling a library of introductory tutorial videos. To date, six videos have been created and posted to the ASMS website (<http://www.asms.org/about/about-mass-spectrometry>). These are:

- ‘**Ionization Methods**’, presented by David C. Muddiman (North Carolina State University)
- ‘**Mass Analyzers**’, presented by Richard Vachet (University of Massachusetts Amherst)
- ‘**Tandem Mass Spectrometry, or MS/MS**’, presented by Scott A. McLuckey (Purdue University).
- ‘**Imaging Mass Spectrometry: An Overview**’, presented by Michelle Reyzer (Vanderbilt University)
- ‘**Nested Ion Mobility-TOF Mass Spectrometry**’, presented by David E. Clemmer (Indiana University)
- ‘**The First Fifty Years of Mass Spectrometry: Building a Foundation**’, presented by Michael L. Gross (Washington University, St. Louis) as a plenary lecture during the 2013 ASMS Annual Conference in Minneapolis.

If you have suggestions for future tutorial video projects, or other Educational content for the website, please contact the Member-at-Large for Education, or a member of the Education committee (<http://www.asms.org/about/asms-leadership/committees/education>)

Related Events

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

July 8 – 14, 2018

12th Mass Spectrometry School in Biotechnology and Medicine (MSBM)
Dubrovnik, Croatia
<http://www.msbm.org/>

August 26 - 31, 2018

22nd International Mass Spectrometry Conference
Florence, Italy
www.imsc2018.it

September 9 – 13, 2018

MSACL 2018 EU
Salzburg, Austria
<https://msacl.org/>

October 21 – 26, 2018

SciX presented by FACSS
Atlanta, GA
<https://www.scixconference.org/>

November 11 – 14, 2018

IMSS II & OurCon VI Conference
Charleston, SC
<https://www.imagingmssociety.org>
and <http://www.ourcon.org>

January 30 – February 3, 2019

27th Australian and New Zealand Society for Mass Spectrometry Conference
Auckland, New Zealand
<http://www.anzsms.org>