

October 2025 Newsletter



Just Days Away: SciX 2025 in Covington, Kentucky

We are only a few days away from SciX 2025 in Covington, Kentucky (5–10 October 2025), and we look forward to seeing everyone there! The theme of this year's meeting is "Mysteries of Science". This year's SciX is filled with fantastic examples of scientists exploring (and solving) the many mysteries of the world (and beyond). Check out the proof [here](#) and if you haven't registered yet, don't miss out – [register now!](#)

Contributed by Abby Bauer, SciX 2025 Marketing Chair



Attend ECIG Events at SciX 2025!

As a reminder, the Early Career Interest Group (ECIG) will be co-hosting a social event with the Student Section at this year's SciX! This relaxing evening of socializing and networking will take place on Monday night from 8:00 – 11:00 p.m. at Smoke Justis. For those of you who didn't RSVP by the original September deadline, there are a limited number of spots remaining to join in on the fun! Tickets for non-students/non-ECIG members will be on sale for \$20 a piece. You can still [register](#) for this event before the last few spots are gone.

Contributed by Anthony Stender, Early Career Interest Group

ECIG's Special Topics Session at SciX

During the Wednesday morning session of SciX, the ECIG section will once again be hosting a special topics session on career paths. Instead of a series of prepared, invited talks, this will be an interactive panel discussion, so attendees are encouraged to bring their questions related to the job search, career advancement, and "work life after graduation". Our panelists are looking forward to hearing your questions and offering their words of advice. The four panelists for this session are: Fay Nicolson (Dana-Farber Cancer Institute and Harvard Medical School), Lyndsay Kissell (U.S. Food

and Drug Administration), Karen Gall (HORIBA), and Anthony Stender (Creighton University).

Contributed by Anthony Stender, Early Career Interest Group

Spectroscopy Society of Pittsburgh Meeting Announcement

The Spectroscopy Society of Pittsburgh (SSP) is pleased to announce that during their upcoming meeting on 6 October, Dr. David C. Muddiman will be giving a talk titled *Controlling Chaos: A Novel Molecular Microscopy Platform with Diverse Applications in Human Health and Disease*. Those wanting to attend the talk, either virtually or in-person, can register [here](#). Dr. Muddiman's bio and abstract for the talk is below.

Additionally, SSP offers Virtual Broadcasting grants which supports colleges or institutions to broadcast their monthly technical programs. The grant covers up to \$300 for dinner and soft drinks, making it a great way to bring people together for science and discussion. The grant application can be found [here](#).



Bio: David C. Muddiman is the Jacob and Betty Belin Distinguished Professor of Chemistry and Founding Director, Molecular Education, Technology and Research Innovation Center (METRIC) at North Carolina State University (NCSU) in Raleigh, NC (2018-2023). Prior to moving his research group to NCSU in 2005, David was a Professor of Biochemistry and Molecular Biology and Founder and Director of the Proteomics Research Center at the Mayo Clinic College of Medicine in Rochester, MN. Prior to this appointment, David was an Associate Professor of Chemistry at Virginia Commonwealth University. It was there that he began his professional career as an assistant professor with an adjunct appointment in the Department of Biochemistry and Molecular Biophysics and as a member of the Massey Cancer Center in 1997. These academic appointments were preceded by a postdoctoral fellowship at Pacific Northwest National Laboratory in the Environmental Molecular Sciences Laboratory under Richard D. Smith from 1995–1997.

David was born in Long Beach, CA in 1967 but spent most of his formative

years in a small town in Pennsylvania. David received his B.S. in chemistry from Gannon University (Erie, PA) in 1990 and his Ph.D. in Analytical Chemistry from the University of Pittsburgh in 1995 under the auspices of the late David M. Hercules. Dr. Muddiman was Editor of *Analytical and Biological Chemistry* (2015–2020) and he is currently the Coordinating Editor of the *Journal of Mass Spectrometry* (2022–present), and serves on the Editorial Advisory Board of *Molecular and Cellular Proteomics*, *Rapid Communications in Mass Spectrometry*, and the *Journal of Chromatography B*. He also serves as the Chair of the advisory board of the National Institute of Health (NIH) Funded Yale/National Institute on Drug Abuse (NIDA) Neuroproteomics Center, Yale University. Dr. Muddiman has served as a member of the American Society for Mass Spectrometry Board of Directors (2013–2015) as well as Treasurer (2013–2015) and President (2015–2017) of the United States Human Proteome Organization.

His group has presented over 835 invited lectures and presentations at national and international meetings including 35 plenary/keynote lectures. His group has published over 365 peer-reviewed papers and reviews and has received six US patents. In 2024, Dr. Muddiman was elected as a Fellow of the American Association for the Advancement of Science (AAAS). He is the recipient of the 2023 Donald F. Hunt Distinguished Contribution to Proteomics Award, 2016 Graduate School Outstanding Graduate Faculty Mentor Award in the Mathematical, Physical Sciences, and Engineering, 2015 American Chemical Society Award in Chemical Instrumentation, 2010 Biemann Medal (American Society for Mass Spectrometry), 2009 NCSU Alumni Outstanding Research Award, the 2004 ACS Arthur F. Findeis Award, the 1999 American Society for Mass Spectrometry Research Award, and the 1990–1991 Safford Award for Excellence in Teaching (University of Pittsburgh). Dr. Muddiman's research is at the intersection of innovative mass spectrometry platform technologies, systems biology, environmental science, and model organisms to understand human disease and is largely funded by the National Institutes of Health.

Abstract: Since its first demonstration in the 1960s, the field of mass spectrometry imaging (MSI) has emerged as a fruitful area of scientific research with significant impacts to human health. To date, SIMS, MALDI, and DESI have been the primary ionization methods utilized in the field and these approaches have resulted in key new findings for a diverse range of biological questions. However, other emerging ionization methods have great potential to impact the field of MSI. We invented matrix-assisted laser desorption electrospray ionization (MALDESI) in 2005 and over the past 20 years, we have made tremendous progress in the fundamentals, source development, and demonstrated the principal advantages of this ionization technique over other methods and these will be discussed.

Mass spectrometry imaging offers a versatile and robust platform to discover and characterize new diagnostic, prognostic, and therapeutic biomarkers for disease, elucidate and understand biochemical pathways, visualize and quantify endogenous and exogenous compound distributions in tissues and characterize post-translational modifications (e.g., N-linked glycans). Moreover, a multi-omic approach will allow the underlying biology to be more accurately defined, enabling modeling of pathways and identify potential drug targets. The second part of this presentation will present a diverse range of

biological questions which are made possible by innovations in our platform and the extensive use of isotopologues. The fundamentals and innovations of each strategy will be integrated throughout for each biological question being presented. Finally, biophysical studies will be presented demonstrating the versatility of the platform.

Contributed by Heather Juzwa



SAS Volunteers Wanted!

**SAS is looking for volunteers to help with
social media and newsletter creation.**

**No experience needed! We welcome individuals from all
backgrounds and skill levels.**

**If interested, please contact Konnor Jones at
konnorkjones@gmail.com or Kristen Frano at
kristen.frano@gmail.com.**
