



Birgit Schilling, PhD President

Upcoming Dates

<u>January 9: US Imaging</u> <u>SIG's New Frontiers in</u> <u>Spatial Omics Webinar</u>

March 4-8: US HUPO's 19th Annual Conference in Chicago, IL

MESSAGE FROM THE PRESIDENT

January 5, 2023

Dear US HUPO members,

I would like to wish you all a Happy New Year 2023. I hope everybody had a chance to rest and reflect over the holidays and to start 2023 refreshed; ready for new scientific and other endeavors. Our Annual US HUPO conference in Chicago in March 2023 is approaching with a wonderful program and unique new activities, such as our "Evening Reception featuring Senior PI Posters". I am looking forward to many interesting scientific discussions with all of you.

Many of us also had a chance to see each other at International HUPO 2022 in Cancun, Mexico, where the US appeared with a very strong representation. US HUPO was proud to sponsor two rising young scientists, who are also US HUPO members, with travel fellowships to attend HUPO in Cancun. Congratulations to Katie Kapp (Vanderbitt University) and Dr. Nick Riley (Stanford University, about to start his own laboratory at UW in Seattle)!

In general, one of my goals for the next coming years is to establish further international activities and scientific exchange for US HUPO members, and new connections that enable novel translational proteomic work.

To a successful year 2023, see you in Chicago!

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Birgit Schilling, PhD Professor US HUPO President bschilling@buckinstitute.org



US HUPO Travel Awardees Katie Kapp and Nick Riley enjoyed lunch with US HUPO President Birgit Schilling and members Joanna Bons and Ben Orsburn at the 2022 HUPO Conference in Cancun, Mexico.

MEMBER SPOTLIGHT



Peggi Angel, PhD Associate Professor MS Imaging SIG Chair Department of Pharmacology, Medical University of South Carolina

What career advice do you live by? Who gave it to you?

Someone introduced me to peer mentoring early in my career. This means seeking that peer that you can be open with and have great discussions on both life and science – and science life. Finding that person(s) is as important as finding a suitable life partner. Lean forward to make those connections to people and take time to get to know them.

Another piece of advice I have learned is that if you are not comfortable with your work environment or tasks, don't be afraid to change your situation. It might mean a simple discussion, changing labs, or a big move. It's important to be surrounded by people that make you happy and excited to do work with every day, whether it be your team or collaborators.

If you could collaborate with anyone, who would it be? Why?

My best collaborations are multidisciplinary collaborations where people with high expertise in their discipline come together to build collective information on a specific problem. I particularly enjoy working with clinicians, pathologists, epidemiologists, statisticians, and patient advocates. These groups make meaningful and motivational connections to address clinical problems that may not be solved by a single laboratory.

Fun fact that people probably don't know about you! I enjoy river canoeing and swamp kayaking for wildlife observation.

What's a project you're working on right now? Why is it meaningful to you?

I am passionate about understanding the molecular origins of disease disparities, and this comes from an interest in solving difficult problems and a desire to help people. If there is a knowledge or social gap, we as humans need to work on understanding why this is happening and solve the problem. In the United States, there are clusters of populations that suffer from cancer disparities and have high mortalities. Helping these groups may be the hardest problems to solve as this involves the influence of genetics integrating with social and economic factors that affect molecular expression.

A main project I am working on now is the spatial biology of collagen proteome regulation in breast cancer disparities. African-American women have higher breast cancer mortality than other ancestries and are diagnosed at younger ages with more aggressive breast cancer stages and grades. African-American women get lethal triple negative breast cancer at two times the rate of their European-American counterparts. Collagen organization is predictive of breast cancer progression and survival, but the translational and post-translational regulation are virtually untouched. The collagen network presents a unique and virtually unexplored extracellular system biology through complex domain regulation exposed by suprastructure organization. We are investigating spatial regulation of the triple helical structure in the tumor microenvironment and how that relates by ancestry. I am thrilled to contribute to a new perspective on solving disparities in cancer progression and outcome.

Describe what a perfect day outside of work would look like for you.

A perfect day would be going on a canoe trip through the marshlands for wildlife observation followed by a meal homecooked together with my husband.



Kristin Burnum-Johnson, PhD

Senior Scientist MS Imaging SIG Chair Environmental Molecular Sciences Laboratory, Metabolomics, Pacific Northwest National Laboratory

What career advice do you live by? Who gave it to you?

I have been fortunate to have great mentors throughout my scientific career. Seek out these individuals – you will gain a more valuable outlook by obtaining advice from multiple mentors with different perspectives. The right mentor can change your career in a positive way.

For career advice, I have two key words: persistence and collaboration. For persistence, do not take rejection personally. Plan for proposals and papers to be rejected and use the critiques to improve subsequent submissions. Science is a highly competitive field with limited funding. When you are faced with rejection, rebound more determined than ever. Collaboration is key. Science today is highly collaborative and scientists from diverse disciplines bring different skills to the table. Over the decades, I have organized a team of what I refer to as my forever collaborators. Find your forever collaborators.

If you could collaborate with anyone, who would it be? Why?

As a bioanalytical chemist, I have the opportunity to collaborate with a diverse group of scientists and impact many research areas including reproductive biology, virology, and synthetic biology, etc. We are in a new era where rapid advancements in mass spectrometry (MS) technologies are making new collaborations possible. I am excited about future collaborations where these MS technologies will redefine what we know about many biological systems by defining, quantifying, and visualizing the enigmatic proteome at unprecedented levels of detail.

Fun fact that people probably don't know about you!

I love living in Washington state and exploring its diverse terrain. Although Washington is often thought of as being a lush rainforest, the eastern side of the state, where Pacific Northwest National Laboratory resides, is desert-like with an abundance of tumbleweeds.

What's a project you're working on right now? Why is it meaningful to you?

I am currently working on a project funded by the Early Career Research Program at the U.S. Department of Energy, Office of Science. In my research program, we are using microscale proteomics to map interactions in complex microbial communities composed of symbiotic fungal and bacterial members spatially organized to provide optimal conditions for plant matter degradation. Our goal is to understand how natural systems efficiently transform plant material into usable products. Understanding this symbiotic system has great potential for advancing the biological production of biofuel precursors and bioproducts from plant biomass, which would decrease our dependence on fossil fuels. I have a fantastic team helping me with this research.

Describe what a perfect day outside of work would look like for you. A perfect day outside of work would include spending time with my husband, Grant, our 9year-old daughter, Andrea, and our 8-month-old labradoodle, Porter.

EATURED JOBS

Postdoctoral Research Fellow - Proteomics University of Texas Health Science Center, Houston, TX View the Job Posting <u>here</u> Posted: 12/01/22

Do you have a job opportunity that you would like to share? Submit it here!





Don't miss out on the special podcast series "The Road to Chicago" by the Proteomics Show hosts and US HUPO members, Ben Orsburn and Ben Neely. This series hosted by US HUPO, features speakers from the upcoming US HUPO meeting in Chicago, Illinois.

Listen to the series here!

EVENTS



Meet Our Opening Plenary Speaker

This year's opening plenary speaker is Dr. Milan Mrksich. Milan is Vice President for Research, Henry Wade Rogers Professor of Biomedical Engineering, Professor of Chemistry, Professor of Cell and Developmental Biology. Dr. Mrksich is an award-winning leader in the science and engineering of developing surface chemistries for life science applications. His laboratory has pioneered several technologies, including: strategies to integrate living cells with microelectronic devices; methods to enable high throughput assays for drug discovery; and approaches to making synthetic proteins for therapeutic use. Most notably, he developed the SAMDI biochip technology. SAMDI vastly increases the pace of experiments by allowing enzymes to be tested at a rate of a hundred thousand per day, a breakthrough that has become the leading 'label-free' technology in drug discovery and has addressed a pressing need in early stage drug development. His research has been described in approximately 200 publications and 500 invited talks.

Short Course Offerings:

US HUPO is pleased to offer short courses at this year's conference. Short Courses require an additional registration which you can select while <u>registering for the conference</u>. If you have already registered for the conference and wish to add short course registration, please reach out to <u>Register@ConferenceSolutionsInc.com</u>.



Covid Safety Policy for 2023 Conference

In order to keep all attendees safe and healthy at least two doses of the vaccine, or a valid exemption will be required. Masks will be recommended but not enforced; and testing required within 24 hours of the start of the conference. <u>Please find more information here.</u>

Have you booked your accommodations?

The Drake Hotel is the official host for US HUPO 2023. Book your room at The Drake so you'll be just steps away from all of the meeting activities! Begin your conference overlooking beautiful Lake Michigan with easy access to the Magnificent Mile. <u>Book your room here to receive discounted group rates.</u>



Learn more about Chicago!

US HUPO 2023 will take place in Chicago, IL. Chicago is a city unlike any other. With its welcoming and inclusive spirit, award-winning food scene, iconic attractions, and vibrant neighborhoods, there is something new to discover around every corner. You can find things to do and see in Chicago by visiting the <u>Choose Chicago website</u>.



REGISTER HERE

Monday, January 9, 2023 11:00 - 12:30 PST | 2:00 - 3:30 EST

Dr. Colley will be discussing PASEF Imaging Mass Spectrometry for high spatial resolution *in situ* annotation of lipids.

Dr. Laskin will describe recent developments in imaging of proteoforms and isomer-selective lipid imaging using ambient ionization mass spectrometry.

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