

# Mass Spectrometry at Yale



**Tuesday**  
**October 25, 2022**  
**1-4 PM**  
**Hybrid Event**

## IN PERSON OR BY ZOOM

**IN PERSON** Brady Auditorium BML 131

**BY ZOOM** Log on to [zoom.us/j/91393814642](https://zoom.us/j/91393814642)  
 Log on no earlier than 12:30 PM October 25, 2022.

Mass spectrometry has emerged as a powerful discovery and analysis tool in the biomedical sciences. This workshop features the most cutting-edge advances in mass spectrometry at the medical school and university that are facilitating crucial breakthroughs in both research and clinical settings. Mass spec is continually developing along both the instrumentation and analytical fronts. This progress is enabling new understandings of organisms and their interactions with the environment, elucidating disease mechanisms, and identifying targets for treatment.

**RECORDING** Available after the event at [medicine.yale.edu/about/deanoffice/workshop](https://medicine.yale.edu/about/deanoffice/workshop)

**MORE INFORMATION** [medicine.yale.edu/workshops](https://medicine.yale.edu/workshops)



Program Details [medicine.yale.edu/about/deanoffice/workshop](https://medicine.yale.edu/about/deanoffice/workshop)  
 Dean's Workshop Contact [beth.pranger@yale.edu](mailto:beth.pranger@yale.edu)  
 Sponsor Office of the Dean, Yale School of Medicine

### INTRODUCTION AND WELCOME, 1-1:05 PM

**NANCY J. BROWN, MD** Jean and David W. Wallace Dean of Medicine and C.N.H. Long Professor of Internal Medicine, Yale School of Medicine

### MUCINOMICS AS THE NEXT FRONTIER OF MASS SPECTROMETRY, 1:05-1:20 PM

**STACY MALAKER, PHD** Assistant Professor of Chemistry, Yale University

### KECK MS & PROTEOMICS RESOURCE AT YSM: BRINGING MASS SPECTROMETRY TO A WIDER AUDIENCE, 1:20-1:35 PM

**TUKIET T. LAM, PHD** Research Scientist in Molecular Biophysics and Biochemistry; Director, Keck MS & Proteomics Resource; Director, Discovery Proteomics Core of Yale/NIDA Neuroproteomics Center, Yale School of Medicine

### DECONSTRUCTING HIERARCHICAL ORGANIZATION OF LIPIDS AND PROTEINS AT THE CELL MEMBRANE WITH SPATIAL RESOLUTION, 1:35-1:50 PM

**KALLOL GUPTA, PHD** Assistant Professor of Cell Biology, Yale School of Medicine

### DATA-INDEPENDENT ACQUISITION MASS SPECTROMETRY AND ITS APPLICATIONS IN MEASURING POST-TRANSLATIONAL DIVERSITY, 1:50-2:05 PM

**YANSHENG LIU, PHD** Assistant Professor of Pharmacology, Cancer Biology Institute, Yale School of Medicine

### MASS SPEC METABOLOMICS-ENABLED SYSTEMS BIOCHEMISTRY AND CELLULAR METABOLISM, 2:05-2:20 PM

**HONGYING SHEN, PHD** Assistant Professor of Cellular & Molecular Physiology, Systems Biology Institute, Yale School of Medicine

### NETWORKING BREAK, 2:20-2:45 PM

### NOVEL DIA WORKFLOW LEVERAGING MACHINE LEARNING FOR IMPROVED IDENTIFICATION IN UNTARGETED LC-MS METABOLOMICS, 2:45-3 PM

**VASILIS VASILIOU, PHD** Chair and Susan Dwight Bliss Professor of Epidemiology (Environmental Health Sciences), Yale School of Public Health; Professor of Ophthalmology & Visual Science, Yale School of Medicine

### LARGE-SCALE SYNTHETIC HUMAN PHOSPHOPROTEOMES AS A HUB FOR BIOTECHNOLOGY DEVELOPMENT AND TRANSLATIONAL RESEARCH, 3-3:15 PM

**JESSE RINEHART, PHD** Associate Professor of Cellular & Molecular Physiology, Systems Biology Institute, Yale School of Medicine

### OPTIMIZATION OF UNTARGETED LC-MS-BASED METABOLOMICS FOR CLINICAL SAMPLE ANALYSIS, 3:15-3:30 PM

**CAROLINE JOHNSON, MD** Associate Professor of Epidemiology (Environmental Health Sciences), Yale School of Public Health

### GENES, DIET, SEX, AND METABOLISM, 3:30-3:45 PM

**RICHARD KIBBEY, MD, PHD** Associate Professor of Medicine; Associate Director, Program in Translational Biomedicine; Director, Iomic Facility for Metabolism, Yale School of Medicine

### CLOSING REMARKS, 3:45 PM

**NANCY J. BROWN, MD**