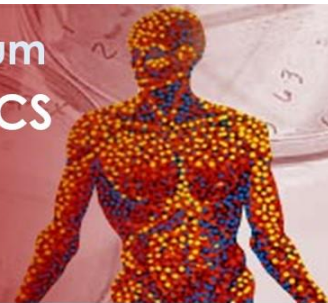




2024 Wisconsin Human Proteomics Symposium NEW FRONTIERS IN CLINICAL PROTEOMICS

July 31 – August 1, 2024

UW-Madison, Health Science Learning Center (HSLC)
750 Highland Ave, Madison WI 53705



DAY 1 | July 31

8:00am – 5:00pm	Conference Registration	HSLC Atrium
<p><u>Women’s Initiative and DEI Session</u> (Sponsored by UW Carbone Cancer Center) Chairs: Lauren Fields and Anna Grace 9:00 am – 12:30 pm (HSLC 1306, Virtual option available in Zoom)</p>		
<p>9:00 am – 9:05 am</p> <p>9:05 am – 9:30 am (20 min presentation, 5 min Q&A)</p> <p>9:30 am – 9:55 am (20 min presentation, 5 min Q&A)</p> <p>9:55 am – 10:20 am (20 min presentation, 5 min Q&A)</p> <p>10:20 am – 10:45 am (20 min presentation, 5 min Q&A)</p>	<p>Welcome Ying Ge, PhD University of Wisconsin – Madison</p> <p>Judith Simcox, PhD University of Wisconsin-Madison <i>“Harnessing diverse human populations to explore the function and regulation of plasma lipids”</i></p> <p>Amber Mosley, PhD Indiana University <i>“The Stress of Cellular Origami: Defining the Unfolded Protein Response with Thermal Proteome Profiling”</i></p> <p>Michelle Kimple, PhD University of Wisconsin-Madison <i>“Elucidating the Role of Circulating Lipids and Their Metabolites in Diabetes Pathophysiology Using Targeted and Untargeted Mass Spectrometry Approaches”</i></p> <p>Stefani Thomas, PhD, DABCC University of Minnesota <i>“Overcoming Barriers to Develop Diagnostic Serum Protein Biomarkers for High-Grade Serous Ovarian Cancer”</i></p>	
11:00 am – 12:30 pm	<p style="text-align: center;">Panel Discussion and Lunch</p> <p>Panelists</p> <ul style="list-style-type: none"> • Dr. Si Wu- Professor, University of Alabama • Dr. Emma Doud- Assistant Research Professor, Indiana University School of Medicine • Dr. Savannah Snyder- Field Sales Representative, Bruker Daltonics • Dr. Judith Simcox, Assistant Professor, University of Wisconsin-Madison • Dr. Michelle Kimple, Professor, University of Wisconsin-Madison 	

- Dr. Andrea Galmozzi, Assistant Professor, University of Wisconsin-Madison
- Dr. Héctor H. Valdivia, Professor, University of Wisconsin-Madison

Special Session on Spatial Proteomics via Imaging Mass Spectrometry

Chair: Lingjun Li, PhD

1:00 pm – 2:25 pm (HSLC 1306, Virtual option available in Zoom)

1:00 pm – 1:45 pm
(40 min presentation,
5 min Q&A)

Keynote Speaker

Ron Heeren, PhD

Distinguished Professor and Scientific Director of M4I
Maastricht University

“Omics’ and imaging in single cell spatial biology”

1:45 pm – 2:10 pm
(20 min presentation,
5 min Q&A)

Peggi Angel, PhD

Medical University of South Carolina

“Extracellular Glycoproteins as Pathological Differentiators in Tissue and Fluids”

2:10 pm – 2:25 pm
(12 min presentation,
3 min Q&A)

Peter Verhaert, PhD

ProteoFormiX

“HRMS Secretomics Approach to Map True Biological Activity of Human Cells in Culture”

2:25 pm – 2:45 pm

Break & Exhibits

HSLC Atrium

Rising Star Session, Senior Group

(Sponsored by UW Carbone Cancer Center)

Chair: Daniel Matson, MD, PhD

2:45 pm – 3:50 pm (HSLC 1306, Virtual option available in Zoom)

2:45 pm – 3:00 pm
(12 min presentation,
3 min Q&A)

Irene Ong, PhD

University of Wisconsin-Madison

“Breastfeeding and Traditional Farming Lifestyle Promotes Predominant Bifidobacterium in Infants”

3:00 pm – 3:15 pm
(12 min presentation,
3 min Q&A)

Jia Fan, PhD

Tulane University

“Advances in Mass Spectrometry for Precision Diagnostics and Pathogen Identification”

3:15 pm – 3:30 pm
(12 min presentation,
3 min Q&A)

Qing Yu, PhD

UMass Chan Medical School

“High-throughput intelligent chemoproteomics for massive protein-ligand insight and targeted drug discovery”

3:30 pm – 3:45 pm
(12 min presentation,
3 min Q&A)

Tao Chen, PhD

Absea Biotechnology Ltd.

“Platforms and Resources for Proteomics and Beyond”

4:00 pm – 6:00pm

Reception, Poster Competition & Exhibits

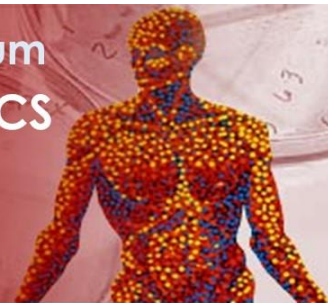
HSLC Atrium



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DAY 2 | August 1

8:00am – 12:00pm	Conference Registration	HSLC Atrium
<p><u>Session I</u> Chair: Ying Ge, PhD 9:00 am – 10:50 am (HSLC 1306, Virtual option available in Zoom)</p>		
9:00 am – 9:10 am	<p>Welcome Allan Brasier, MD Senior Associate Dean Clinical and Translational Research, School of Medicine and Public Health University of Wisconsin - Madison</p>	
9:10 am – 10:00 am (45 min presentation, 5 min Q&A)	<p><u>Keynote Speaker</u> Matthias Mann, PhD Director, Max-Planck Institute of Biochemistry <i>“Advances in MS-based clinical proteomics: from large cohorts analysis to deep visual proteomics”</i></p>	
10:00 am–10:25 am (20 min presentation, 5 min Q&A)	<p>Akhilesh Pandey, MD, PhD Mayo Clinic <i>“From Exploring Biochemical Pathways in Glycosylation to Translation”</i></p>	
10:25 am– 10:40 am (12 min presentation, 3 min Q&A)	<p>Michael Greig, PhD Bruker <i>“Expanding Capabilities for a Top-Down World”</i></p>	
10:40 am – 11:00 am	Break & Exhibits	HSLC Atrium

Session II

Chair: Jonathan Sweedler, PhD

11:00 am – 12:05 pm (HSLC 1306, Virtual option available in Zoom)

11:00 am – 11:25 am (20 min presentation, 5 min Q&A)	Hanno Steen, PhD Harvard Medical School <i>Advances in Body Fluid Proteomics: More from Less and that Much Faster (and Cheaper)</i>
11:25 am – 11:50 am (20 min presentation, 5 min Q&A)	Lee Eckhardt, MD University of Wisconsin – Madison <i>“Proteomics in Inherited Arrhythmic Conditions; a clinical perspective”</i>
11:50 am – 12:05 pm (12 min presentation, 3 min Q&A)	Mike Rosenblatt, PhD Promega <i>“Toward Optimal Workflow Solutions for Bottom-Up Proteomics”</i>

Lunch Seminars

12:05 pm – 1:20 pm (HSLC 1335 and 1345, Virtual option available in Zoom)

12:20 pm – 1:20 pm	ThermoFisher Scientific (HSLC 1335) <i>“From Compounds to Clinics: New Innovations in Proteomics”</i> Amanda Lee, PhD Thermo Fisher Scientific Tribrid Product Marketing Manager Matthias Mann, PhD Professor of Proteomics and Signal Transduction Director, Max Planck Institute of Biochemistry Akhilesh Pandey, M.D., Ph.D. Professor, Mayo Clinic
12:20 pm – 1:20 pm	Agilent Technologies (HSLC 1345) Jonathan Sweedler, PhD University of Illinois Urbana Champaign <i>“Single-Cell Metabolomics via CE-NanoESI-MS”</i> Anna Anders University of Michigan <i>“Development of Native Ion Mobility-Mass Spectrometry (IM-MS) and Collision-Induced Unfolding (CIU) for the Structural Characterization of Non-coding Ribonucleic Acids (ncRNAs)”</i> Gary Patti, PhD Washington University at St. Louis <i>“Spatial Analysis of Metabolic Fluxes by Mass Spectrometry Imaging”</i>

Rising Star Session, Junior (Predoc- and Postdoc Trainees)

(Sponsored by UW Carbone Cancer Center)

Chairs: Judith Simcox, PhD and Tom Gao, PhD

1:30 pm – 3:10 pm (HSLC 1306, Virtual option Available in Zoom)

Each finalist will give a 10 min presentation plus 2 min Q&A.

1:30 pm – 1:42 pm	<p>Isabela James (Predoc) University of Wisconsin - Madison <i>“Ceramide increase energy expenditure in brown adipose tissue”</i></p>	
1:42 pm – 1:54 pm	<p>Cory Matsumoto (Predoc) University of Illinois-Chicago <i>“Automated Container-less Sample Processing System for Single Cell Multi-omics”</i></p>	
1:54 pm – 2:06 pm	<p>Yanqi Tan (Predoc) University of Illinois Urbana – Champaign <i>“Proteomics Assessment of Plasma-Derived Extracellular Vesicles in Exercised Models by nanoLC-DDA-MS”</i></p>	
2:06 pm – 2:18 pm	<p>Andrew Zhu (Predoc) University of Wisconsin – Madison <i>“Deep Structural Characterization of Metabolites and Metabolic Regulation of Protein Post-Translational Modifications in Diseases”</i></p>	
2:18 pm – 2:30 pm	<p>Zhan Gao, PhD (Postdoc) University of Wisconsin – Madison <i>“Global Proteoform Analysis in Human Hypertrophic Cardiomyopathy through Top-Down Proteomics”</i></p>	
2:30 – 2:42 pm	<p>Morgan Mann, PhD (Postdoc) Stanford University <i>“High Resolution Liquid Chromatography – Mass Spectrometry (LC-MS) For Rapid, High-Throughput Clinical Testing of β2-Transferrin in Human Nasal Secretions”</i></p>	
2:42 – 2:54 pm	<p>Pei Su, PhD (Postdoc) Northwestern University <i>“AutoPiMS: spatially-resolved top-down mass spectrometry enables proteoform-level spatial biology of ovarian cancer”</i></p>	
2:54 – 3:06 pm	<p>Lyndsay Young, PhD (Postdoc) Medical University of South Carolina <i>“Multi-Omic Application of MALDI-MSI and MALDI-IHC for Biomolecular Profiling of Immune Cells in Tissues and Single Cells”</i></p>	
3:10 pm – 3:30 pm	<p>Break & Exhibits</p>	HSLC Atrium

Session III

Chair: Zhicheng Jin, PhD and Xin Yi, PhD

3:30 pm – 5:00 pm (HSLC 1306, Virtual option Available in Zoom)

3:30 pm – 3:55 pm
(20 min presentation,
5 min Q&A)

David Murray, MD, PhD

Mayo Clinic

“Bringing Mass Spectrometry to the Care of Patients with Monoclonal Gammopathies”

3:55 pm – 4:20 pm
(20 min presentation,
5 min Q&A)

Ruben Luo, PhD, DABCC

Stanford University

“Clinical Diagnosis on Hemoglobin Variants and Monoclonal Immunoglobulins: Application of Top-Down Mass Spectrometry and Exploration of Single-Molecule Protein Sequencing”

4:20 pm – 4:45 pm
(20 min presentation,
5 min Q&A)

Si Wu, PhD

University of Alabama

“Ultrasensitive top-down using spray-capillary CE-FAIMS-MS”

4:45 pm – 5:00 pm

Awards & Closing Remarks



School of Medicine and Public Health
Human Proteomics Program

