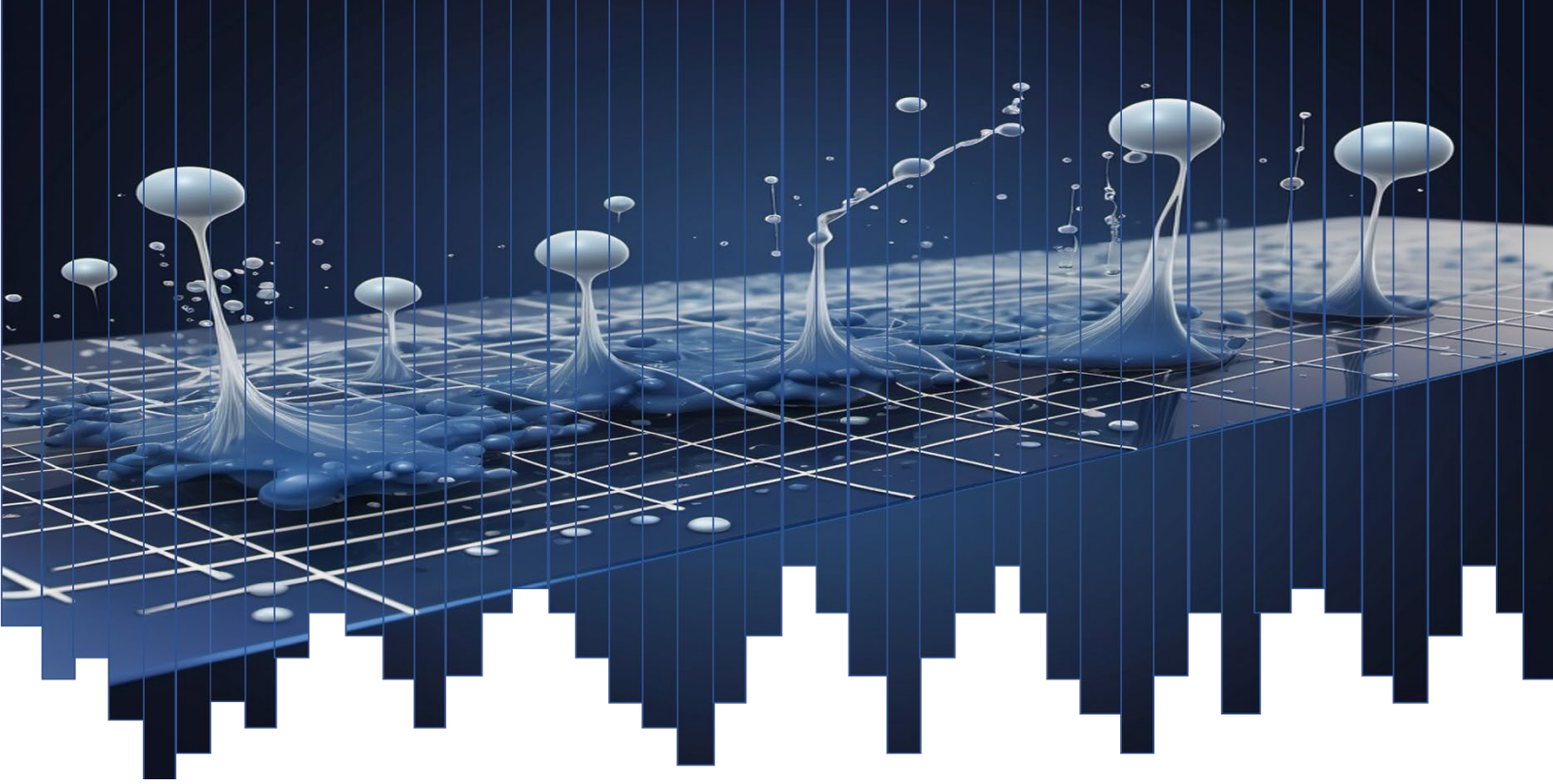

ITP 2024

30th International Symposium on

Electro- and Liquid-Phase Separation Techniques

30th International Symposium on Electro and Liquid-Phase Separation Techniques

Sep 29 – Oct 3, 2024|Fort Worth, Texas, USA

SCIENTIFIC PROGRAM

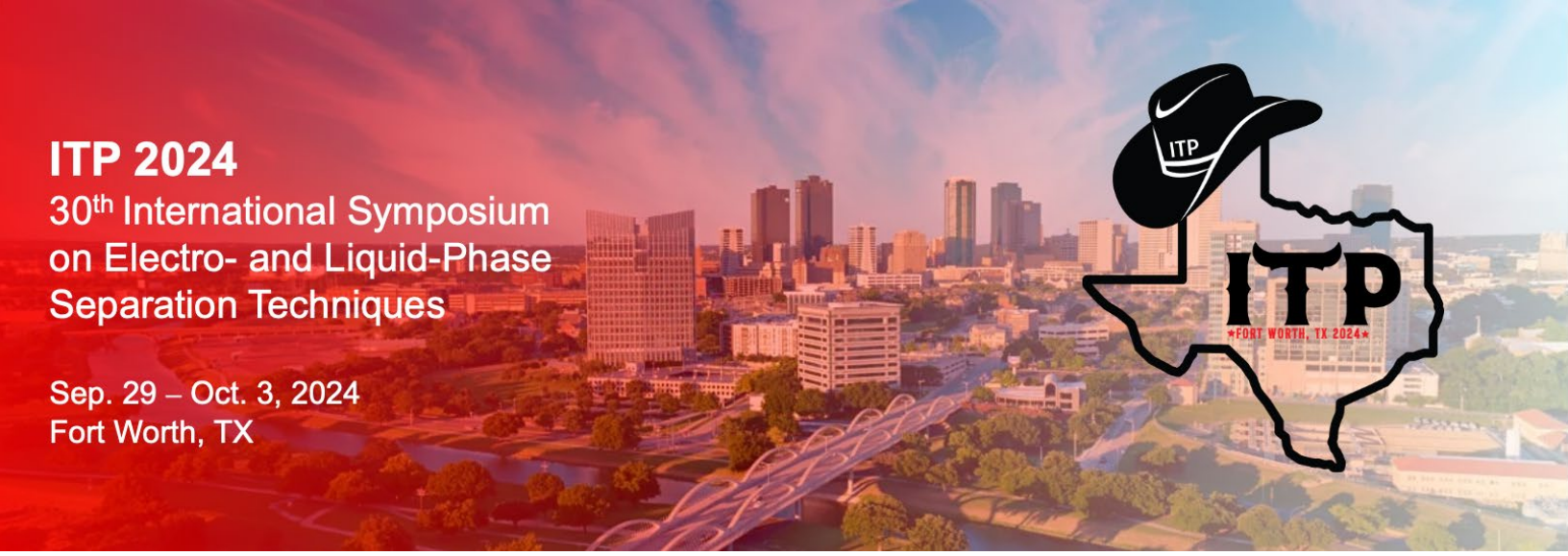

TABLE OF CONTENTS

WELCOME MESSAGE

Welcome to ITP 2024!

Dear colleagues, friends, and fellow scientists,

It is with immense pleasure that I welcome you to the 30th International Symposium on Electro- and Liquid-Phase Separation Techniques (ITP 2024) here in Fort Worth, Texas. This symposium marks an important milestone in the ongoing exploration and development of separation techniques, an area that has been instrumental in advancing analytical science and its applications in various industries.

Hosting ITP 2024 in Fort Worth, a city rich in history and culture, allows us not only to continue the tradition of scientific excellence but also to provide attendees with a unique blend of academic inspiration and Texan hospitality. Our location offers easy access to the not-to-be-missed Fort Worth Stockyards, an incredible variety of modern attractions, and a vibrant city that has long been a hub of innovation and collaboration.

This year's symposium boasts an exciting format with three plenary lectures that span a wide range of cutting-edge topics. The plenary speakers will explore the limits of speed and resolution in liquid chromatography, the importance of D-amino acids in biological systems, and novel ion separation techniques in hollow tubes. These talks will set the stage for a series of stimulating discussions and provide insights into the future directions of our field.

Additionally, ITP 2024 will feature **13 Keynote Lectures**, **15 Lectures**, and a rich mix of both academic and industrial presentations, offering a balance of theoretical advancements and practical applications. Furthermore, I am pleased to announce that **15 Young Scientist Lectures** have been included in this year's program. These lectures allow emerging scientists to showcase their research and presentation skills, an essential part of their professional development. Additionally, young scientists will also be presenting their exciting work in **33 Posters**.

I would like to express my deep gratitude to the organizing and scientific committees, whose dedication and hard work have been essential in bringing this event to life. A special thanks go out to our sponsors for their generous support and to the speakers and attendees, without whom this meeting would not be possible.

To all attendees, thank you for being a part of ITP 2024. Your presence and contributions make this symposium an event to remember. I hope that you will find the program enriching and that you take full advantage of the opportunities to engage with fellow experts, exchange ideas, and explore the many facets of beautiful Fort Worth.

Welcome to ITP 2024 – I look forward to a fantastic meeting with all of you!

Warm regards,

Yehia Mechref
Chair, ITP 2024
Robert A. Welch Endowed Chair in Chemistry
Paul W. Horn Distinguished Professor
Associate Vice President for Research and Innovation
Director, TTU Center for Biotechnology & Genomics
Spokesperson, TTU Horn Distinguished Professors
Chair of the Steering Committee of the Alliance of Glycobiologists for Cancer Research
Founding Editor-in-Chief of BioChem Journal
Texas Tech University
Department of Chemistry and Biochemistry
Lubbock, TX

ITP SYMPOSIUM HISTORY

Year	Chair(s)	Place (Country)
2023	A. Gentili	San Felice Circeo (Italy)
2022	D.S. Chung & F. Foret	Siem Reap (Cambodia)
2020	D. Chen	Virtual Conference
2019	H. Cottet	Toulouse (France)
2018	K. Otsuka	Kyoto (Japan)
2017	M. Markuszewski	Sopot (Poland)
2016	Z. El Rassi & B. Lapizco-Encinas	Minneapolis, MN (USA)
2015	M.L. Riekkola & H. Sirén	Helsinki (Finland)
2014	M. Tavares & E. Carrilho	Natal (Brazil)
2013	A. Cifuentes & J. Hernández-Borges	Puerto de la Cruz (Spain)
2012	Z. El Rassi	Baltimore, MD (USA)
2011	B. Chankvetadze	Tbilisi (Georgia)
2010	Z. El Rassi	Baltimore, MD (USA)
2008	V. Cucinotta	Catania (Italy)
2006	G. Peltre	Paris (France)
2004	S. Fanali & M.G. Quaglia	Rome (Italy)
2002	M.L. Riekkola	Helsinki (Finland)
2000	D. Kaniansky & E. Kenndler	Bratislava (Slovak) – Vienna (Austria)
1998	P.G. Righetti	Venice (Italy)
1996	B. Gas	Prague (Czech)
1994	F. Kilar	Budapest (Hungary)
1992	S. Fanali	Rome (Italy)
1990	D. Kaniansky	Tatranska Lomnica (Czechoslovakia)
1988	E. Kenndler	Vienna (Austria)
1986	F.M. Everaerts	Maastricht (The Netherlands)
1984	Z. Prusik	Hradec Kralove (Czechoslovakia)
1982	C.J. Holloway	Gosslar (Germany)
1980	F.M. Everaerts	Eindhoven (The Netherlands)
1979	A. Adam & C. Schots	Baconfoy (Belgium)

COMMITTEE MEMBERS

Conference Chairman

Dr. Yehia Mechref
Robert A. Welch Endowed Chair in Chemistry
Paul W. Horn Distinguished Professor
Associate Vice President for Research and Innovation
Director, TTU Center for Biotechnology & Genomics
Spokesperson, TTU Horn Distinguished Professors
Chair of the Steering Committee of the Alliance of Glycobiologists for Cancer Research
Founding Editor-in-Chief of BioChem Journal

Department of Chemistry and Biochemistry
Texas Tech University, Texas, USA
Tel: +1 806-834-8246
E-mail: Yehia.Mechref@ttu.edu

Scientific Committee

Yehia Mechref (Lubbock, TX, USA)
Bezhan Chankvetadze (Tbilisi, Georgia)*
Alejandro Cifuentes (Madrid, Spain)*
Salvatore Fanali (Verona, Italy)*
Carlos D. Garcia (Clemson, SC, USA)*
Václav Kašička (Prague, Czech Republic)*
Marina Tavares (Sao Paulo, Brazil)*
USA)*Marja-Liisa Riekkola (Helsinki, Finland)*
David Chen (Vancouver, Canada)*
Ziad El Rassi (Stillwater, OK, USA)*
František Foret (Brno, Czech Republic)*
Bohuslav Gaš (Prague, Czech Republic)*
Takuya Kubo (Kyoto, Japan)*
Blanca Lapizco-Encinas (Rochester, NY,

*Permanent members

Organizing Committee

Yehia Mechref (Lubbock, TX, USA)
Shannon Sears (Lubbock, TX, USA)
Mona Goli (Lubbock, TX, USA)
Md Abdul Hakim (Lubbock, TX, USA)
Mojibola Fowowe (Lubbock, TX, USA)
Oluwatosin Daramola (Lubbock, TX, USA)
Waziha Purba (Lubbock, TX, USA)
Joy Solomon (Lubbock, TX, USA)
Md Mostofa Al Amin Bhuiyan (Lubbock, TX, USA)
Odunayo Oluokun (Lubbock, TX, USA)
Sarah Sahioun (Lubbock, TX, USA)
Esther Oji (Lubbock, TX, USA)
Linda Rodriguez (Lubbock, TX, USA)
Cristian D Gutierrez-Reyes (Lubbock, TX, USA)
Andy Bennett (Lubbock, TX, USA)
Sherifdeen Onigbinde (Lubbock, TX, USA)
Akeem Sanni (Lubbock, TX, USA)
Moyinoluwa Adeniyi (Lubbock, TX, USA)
Judith Nwaiwu (Lubbock, TX, USA)
Vishal Sandilya (Lubbock, TX, USA)
Ayobami Oluokun (Lubbock, TX, USA)
Favour Chukwubueze (Lubbock, TX, USA)

SPONSORS

THANK YOU TO OUR SPONSORS

GOLD SPONSORS

ThermoFisher SCIENTIFIC

TEXAS TECH UNIVERSITY
Office *of the* Dean
College *of* Arts & Sciences™

SILVER SPONSORS

TEXAS TECH UNIVERSITY
Office *of the* President™

TEXAS TECH UNIVERSITY
Office *of the* Provost™

TEXAS TECH UNIVERSITY
Office *of the* Research & Innovation™

TEXAS TECH UNIVERSITY
Office *of the* Dean
College *of* Engineering™

BRONZE SPONSORS

SHIMADZU
Excellence in Science

Waters™

BRUKER

GUIDELINES FOR SPEAKERS

- Plenaries: 45' (40' for presentation + 5' for discussion) **(PL)**
- Keynotes: 30' (25' for presentation + 5' for discussion) **(KL)**
- Lectures: 20' (17' for presentation + 3' for discussion) **(L)**
- Young Scientist Lectures: 15' (12' for presentation + 3' for discussion) **(YSL)**

Some Remarks on Oral Presentations

- Each session has multiple presentations.
- Please prepare your presentation in PowerPoint.
- Do not forget to bring an additional copy of the presentation (on USB or by emailing it to yourself).
- All presentations should be uploaded at least one hour before the related session starts.
- If you wish to incorporate videos into your presentation, be sure to check that they are working on the venue computers well in advance.
- Technical assistance will be available in the presentation room.
- Session chairs will introduce each speaker.
- Session chairs can notify you when you have a few minutes to spare.

Please respect your fellow presenters and their allotted time by staying within the scheduled time and respecting the session chairs if they ask you to finish.

Some Remarks on Poster Presentations

- Posters must be adjusted to size 3 ft H X 4 ft W.
- The poster must have a title, name of author(s), and affiliation (to be placed at the top of the poster).
- Posters must be in English.
- Posters will be placed in the poster area in the Exhibition room.
- According to the schedule, posters will be presented from the first day of the conference until the last day: Monday (September 30) 12:05-13:05pm, Tuesday (October 1) 12:45-13:45pm, and Wednesday (October 2) 12:00-13:00pm.
- Presenters must attend to their poster board each day during the poster session.
- The posters must be put up before the morning oral session (before 9:00am) on Monday, September 30, and removed at the end of the conference.

ITP 2024 SCIENTIFIC PROGRAM

Following are a few things to note about the 30th International Symposium on Electro-Liquid-Phase Separation Techniques' Scientific Program:

Sunday, September 29, 2024

2:00 PM	**Registration open**
4:00 – 6:00 PM	**Welcome Reception – Crystal D (Hilton Fort Worth)** **Open to All Registrants and Accompanying Persons**

Monday, September 30, 2024

8:00 – 9:00 AM	**Symposium Registration Open – West Promenade**
8:30 – 9:00 AM	**Opening Remarks –** Dr. Yehia Mechref, Symposium Chairman **Venue** – **Crystal D**

Monday, September 30, 2024

Time	Conference Hall – Crystal D	Speaker
	Session I Chair: Dr. Dimitri Pappas *Professor & Department Chair, Texas Tech University*	
9:00 – 9:45	PL-01 **Exploring the Limits of Speed and Resolution in Liquid Chromatography**	**Robert Kennedy** *Hobart H Willard Distinguished University Professor of Chemistry, Pharmacology, University of Michigan*
9:45 – 10:15	KL-01 **New Approach to Lateral-Flow Immunochromatographic Assay**	**Richard Willson** *Huffington-Woestemeyer Professor of Chemical & Biomolecular Engineering, Biology & Biochemistry, and Biomedical Engineering, University of Houston*
10:15 – 10:45	KL-02 **Capillary Electrophoresis for Biomolecular Analyses Under Physiological Conditions**	**Lisa Holland** *Professor, West Virginia University*
10:45 – 11:15	Coffee Break	
	Session II Chair: Dr. Katarína Maráková *Department of Pharmaceutical Analysis and Nuclear Pharmacy, Faculty of Pharmacy, Comenius University Bratislava, Odbojárov 10, 832 32 Bratislava, Slovakia*	
11:15 – 11:35	L1 **Can Automation Help you be a Better Separation Scientist?**	**Doug Carlton** *Shimadzu Scientific Instruments*
11:35 – 11:50	YSL 1 **A Multi-Omics Investigation Uncovering the Biological Mechanisms Underlying Pompe Disease and Muscle Myopathy**	**Vishal Sandilya** *Department of Chemistry & Biochemistry, Texas Tech University*
11:50 – 12:05	YSL 2 **Are Conventional Efficiency Measurements Reliable in Chiral Chromatography?**	**Ryan Jacob Burk** *Department of Chemistry & Biochemistry, The University of Texas at Arlington, Arlington, TX*
12:05 – 13:05	Exhibition/Poster	
13:05 – 14:00	Lunch – On Your Own	

Afternoon Session		
	Session III Chair: Dr. Lisa Holland *Professor, West Virginia University*	
14:00 – 14:30	KL-03 **Capillary Zone Electrophoresis in Quantitative Analysis of Intact Proteins in Pharmaceutical and Biomedical Samples**	**Katarína Maráková** *Department of Pharmaceutical Analysis and Nuclear Pharmacy, Faculty of Pharmacy, Comenius University Bratislava, Odbojárov 10, 832 32 Bratislava, Slovakia*
14:30 – 15:00	KL-04 **Cell Separations in Sepsis and Cancer**	**Dimitri Pappas** *Professor & Department Chair, Texas Tech University*
15:00 – 15:20	L2 **Improve Chromatographic Performance Towards Metal-Sensitive Analytes using UPLC**	**Jorge Smith** *Waters Corporation*
15:20 – 15:50	Coffee Break	
	Session IV Chair: Dr. Adam Woolley *Dean, Graduate Studies, Brigham Young University*	
15:50 – 16:10	L3 **Applications of Micro Free Flow Electrophoresis**	**Michael Bowser** *Professor, University of Minnesota*
16:10 – 16:30	L4 **High Sensitivity Analysis of Biosignatures using Capillary Electrophoresis and Laser-induced Fluorescence**	**Laura Casto-Boggess** *Assistant Professor, The University of North Carolina at Charlotte*
16:30 – 16:45	YSL 3 **LC-MS/MS of Permethylated O-Glycans, Free Oligosaccharides, and Glycosphingolipid Glycans Using Mesoporous Graphitized Carbon Column**	**Oluwatosin Daramola** *Department of Chemistry & Biochemistry, Texas Tech University*
16:45 – 17:00	YSL 4 **Daidzein to Equol: Cyclodextrin-Based Chiral Separations of Key Metabolites**	**Amanda Razo-Smith** *Department of Chemistry & Biochemistry, The University of Texas at Arlington, Arlington, TX*
17:00 – 17:15	YSL 5 **Moving Towards a Proteomics Blood-Based Diagnosis of Alzheimer's Disease Using Human Brain Tissue, CSF, and Plasma Samples by Leveraging a nanoLC-FAIMS-MS/MS Approach**	**Andrew I. Bennett** *Department of Chemistry & Biochemistry, Texas Tech University*
17:15 – 17:30	YSL 6 **Unveiling Glycan Profiles to Study Breast Cancer Brain Metastasis**	**Joy Solomon** *Department of Chemistry & Biochemistry, Texas Tech University*

Tuesday, October 1, 2024

Time	Conference Hall – Crystal D	Speaker
	Session V Chair: Dr. Firas Kobaissy *Professor, Morehouse School of Medicine, Associate Director, Center for Neurotrauma, MultiOmics & Biomarkers (CNMB)*	
8:30 – 9:15	PL-02 **Importance of D-Amino Acids in Biological Systems: Detection and Analysis**	**Daniel Armstrong** *R.A. Welch Distinguished Professor, University of Texas at Arlington*
9:15 – 9:45	KL-05 **Specific Interactions in Liquid Phase Separations**	**Takuya Kubo** *Professor, Kyoto Prefectural University*
9:45 – 10:15	KL-06 **3D Printed Microfluidic Devices Integrating Solid-Phase Extraction and Electrophoretic Separation**	**Adam Woolley** *Dean, Graduate Studies, Brigham Young University*
10:15 – 10:45	Coffee Break	
	Session VI Chair: Dr. Kevin Schug *Shimadzu Distinguished Professor of Analytical Chemistry, University of Texas at Arlington*	
10:45 – 11:15	KL-07 **Promise of MitoQuinone in TBI Therapeutics: Lessons from Clinical TBI Trajectories**	**Firas Kobeissy** *Professor, Morehouse School of Medicine, Associate Director, Center for Neurotrauma, MultiOmics & Biomarkers (CNMB)*
11:15 – 11:35	L5 **Bruker Daltonics – 4D Proteomics Update De-risking Discovery**	**Shourjo Ghose** *Bruker Daltonics*
11:35 – 11:55	L6 **Investigation of Chiral Separation of α-Hydroxy Acid Biomarkers via SPP-Teicoplanin**	**Saba Aslani** *Department of Chemistry & Biochemistry, The University of Texas at Arlington, Arlington, TX, USA*
11:55 – 12:10	YSL 7 **Characterizing Insect-Mediated Microbial Degradation of Insecticides Through LC Methodologies**	**Maria Olds** *Department of Chemistry & Biochemistry, The University of Texas at Arlington, Arlington, TX, USA*
12:10 – 12:25	YSL 8 **Identifying Dysregulated Lipids in Human Brain of Alzheimer's Disease and their Effects on Biological Pathways**	**Akeem Sanni** *Department of Chemistry & Biochemistry, Texas Tech University*

12:25 – 12:40	YSL 9 **LC-MS/MS-Based Metabolic Profiling: Investigating Serum and CSF in TBI Patients**	**Sarah Sahioun** *Department of Chemistry & Biochemistry, Texas Tech University*
12:45 – 13:45	Exhibition/Poster	
14:00 – 17:00	Visit to the Stockyard	

Wednesday, October 2, 2024

Time	Conference Hall – Crystal D	Speaker
	Session VII Chair: Dr. Takuya Kubo *Professor, Kyoto Prefectural University*	
8:30 – 9:15	PL-03 **Ion Separations in Hollow Tubes: Mirage or Oasis?**	**Sandy Dasgupta** *Professor Hamish Small Chair in Ion Analysis, University of Texas at Arlington*
9:15 – 9:45	KL-08 **Octadecyl Monolith for the Reversed-Phase Capillary Electrochromatography of Pre-column Derivatized Mono- and Oligosaccharides with Three Different Ultraviolet Absorbing Tags**	**Ziad El Rassi** *Regents Professor, Oklahoma State University*
9:45 – 10:15	KL-09 **Targeted and Untargeted Analysis of Psilocybin Mushrooms using LC-MS**	**Kevin A. Schug** *Shimadzu Distinguished Professor of Analytical Chemistry, University of Texas at Arlington*
10:15 – 10:45	 Coffee Break	
	Session VIII Chair: Dr. Ziad El Rassi *Regents Professor, Oklahoma State University*	
10:45 – 11:05	L7 **Considerations and Capabilities of Ion Chromatography**	**Tom Cardwell** *Shimadzu Scientific Instruments*
11:05 – 11:25	L8 **Reducing Hepatitis C Diagnostic Disparities with a Point of Care Assay for HCV Antigen Detection using a Handheld Microfluidic Device with Sequence Oscillatory Flow Controls**	**Hui Chen** *Associate Professor, Department of Chemistry & Biochemistry, Texas Tech University*
11:25 – 11:40	YSL 10 **LC-MS/MS-Based Proteomic Profiling of Small Extracellular Vesicle Alterations in Severe Traumatic Brain Injury**	**Mojibola Fowowe** *Department of Chemistry & Biochemistry, Texas Tech University*
11:40 – 11:55	YSL 11 **An Innovative Method for Analyzing IgG Glycosylation Significance in Traumatic Brain Injury**	**Sherifdeen Onigbinde** *Department of Chemistry & Biochemistry, Texas Tech University*
12:00 – 13:00	Exhibition/Poster	
13:00 – 14:00	 Lunch – On Your Own	

Afternoon Session		
	Session IX Chair: Dr. David Chen *Professor The University of British Columbia*	
14:00 – 14:30	KL-10 **Vibrating sharp-edge spray ionization: A new paradigm for coupling condensed-phase separations with mass spectrometry**	**Stephen Valentine** *Eberly Professor of Chemistry, West Virginia University*
14:30 – 14:50	L9 **LC Hardware Considerations for Better Biomolecule Separations**	**Joe Lopez** *Shimadzu Scientific Instruments*
14:50 – 15:10	L10 **The Power of PASEF in Lipidomics Research**	**Beixi Wang** *Applications Scientist, Small Molecule and Metabolomics, Bruker Daltonics*
15:10 – 15:45	 Coffee Break	
	Session X Chair: Dr. Peng Li *Associate Professor | West Virginia University*	
15:45 – 16:05	L11 **Advances in Multidimensional Mass Spectrometry for Resolving Complex Biological and Environmental Sample Mixtures**	**Touradj Solouki** *Professor, Baylor University*
16:05 – 16:25	L12 **Slow Your Flow for Improved Top-down Analysis of Proteins**	**William Russell** *Associate Professor, UTMB Mass Spectrometry Director, The University of Texas Medical Branch at Galveston*
16:25 – 16:40	YSL 12 **Glycoproteomics Profiling of Biofluids in Severe Traumatic Brain Injury Patients**	**Moyinoluwa Adeniyi** *Department of Chemistry & Biochemistry, Texas Tech University*
16:40 – 16:55	YSL 13 **Heart Cut 2D-LC in a Single Chromatograph for a Difficult Isomeric Separation**	**Siddharth Jaya Sajeevan J** *Department of Chemistry & Biochemistry, The University of Texas at Arlington, Arlington, TX, USA*
16:55 – 17:15	YSL 14 **Quantitation of Intact Proteins in Biological Fluids Using tITP-CZE-MS with Off-Line Microelution SPE Sample Pretreatment**	**Martina Opetová** *Department of Pharmaceutical Analysis and Nuclear Pharmacy, Faculty of Pharmacy, Comenius University Bratislava, Odbojárov 10, 831 04 Bratislava, Slovak Republic*
17:15 – 17:30	YSL 15 **LC-MS/MS Characterization of the N-glycosylation of Spike protein S1 Derived from 11 variants of SARS-CoV-2**	**Cristian D. Gutierrez-Reyes,** *Department of Chemistry & Biochemistry, Texas Tech University*
18:00	Conference Dinner	

Thursday, October 3, 2024

Time	Conference Hall – Crystal D	Speaker
	Session XI Chair: Dr. Stephen Valentine *Eberly Professor of Chemistry, West Virginia University*	
8:30 – 9:00	KL-11 **Advancing Proteomics: Efficient Mass Spectrometry Techniques for Analyzing Protein Interactions and Modifications**	**Saiful M. Chowdhury** *Associate Professor, University of Texas at Arlington*
9:00 – 9:30	KL-12 **Coupling 3D-Printed Microfluidic Devices with Mass Spectrometry for Advanced Liquid Chromatography Separation**	**Peng Li** *Associate Professor | West Virginia University*
9:30 – 10:00	KL-13 **Current State of Erythropoietin (EPO) Analysis in Doping Control and the Potential of Liquid Chromatography/Capillary Electrophoresis Mass Spectrometry as a Better Alternative**	**David Chen** *Professor The University of British Columbia*
10:00 – 10:30	Coffee Break	
	Session XII Chair: Dr. Saiful Chowdhury *Associate Professor, University of Texas at Arlington*	
10:30 – 10:50	L13 **Advance your LC Experience with SFC**	**A. Paige Wicker** *Shimadzu Scientific Instruments*
10:50 – 11:10	L14 **Digital Restoration of Chromatographic Data for Signal-to-Noise Enhancement**	**M. Farooq Wahab** *Research Engineering Scientist V | The University of Texas Arlington*
11:10 – 11:30	L15 **A Custom-made Autosampler for Capillary Electrophoresis**	**Giacomo Musile** *Department of Chemistry, University of Basel, Basel, Switzerland*
11:30 – 12:00	Closing Remarks	

Poster Presentations

	Posters	Authors
P-01	Explore the Antileukemic Activity of the Synthetic Retinoid ST1926 in HTLV-1 Positive and Negative Malignant T Cells through LC-MS/MS Proteomics	Mona Goli
P-02	Exploring Tianeptine: Chiral Separation, Enantiomeric Determination and Biological Effects	Saba Aslani
P-03	LC-MS/MS Characterization of the N-glycosylation of Spike protein S1 Derived from 11 variants of SARS-CoV-2	Cristian D. Gutierrez Reyes
P-04	Exploring the Impact of Fasting on Biological Pathways through LC-MS/MS of Profiling Serum Proteome	Md Mostofa Al Amin Bhuiyan
P-05	Are Conventional Efficiency Measurements Reliable in Chiral Chromatography?	Ryan Jacob Burk
P-06	Moving Towards a Proteomics Blood-Based Diagnosis of Alzheimer's Disease Using Human Brain Tissue, CSF, and Plasma Samples by Leveraging a nanoLC-FAIMS-MS/MS Approach	Andrew I. Bennett
P-07	Glycoproteomics Profiling of Biofluids in Severe Traumatic Brain Injury Patients	Moyinoluwa Adeniyi
P-08	Daidzein to Equol: Cyclodextrin-Based Chiral Separations of Key Metabolites	Amanda Razo-Smith
P-09	Serum Proteome Profiling of Diabetic Patients Treated with Novel Antidiabetics Show Improved Cognitive Function, Cardiovascular Function and Reduce Inflammatory Responses	Md Abdul Hakim
P-10	Evaluation of LC-MS Mobile Phase Additives for Separation of Peptide Epimers/Isomers	Umang Dhaubhadel
P-11	A Multi-Omics Investigation Uncovering the Biological Mechanisms Underlying Pompe Disease and Muscle Myopathy	Vishal Sandilya
P-12	An Innovative Method for Analyzing IgG Glycosylation Significance in Traumatic Brain Injury	Sherifdeen Onigbinde
P-13	Chiral Separation of Synthesized Dihydropyridine Derivatives: A Chromatographic Approach for Potential Calcium-channel Blockers	Reza Salehi
P-14	LC-MS/MS of Permethylated O-Glycans, Free Oligosaccharides, and Glycosphingolipid Glycans Using Mesoporous Graphitized Carbon Column	Oluwatosin Daramola
P-15	Development of Simple and Rapid tITP-CZE-UV method for Salivary Lysozyme determination	Radovan Tomašovský
P-16	LC-MS/MS-Based Proteomic Profiling of Small Extracellular Vesicle Alterations in Severe Traumatic Brain Injury	Mojibola Fowowe
P-17	Quantitation of Intact Proteins in Biological Fluids Using tITP-CZE-MS with Off-Line Microelution SPE Sample Pretreatment	Martina Opetová
P-18	Identifying Dysregulated Lipids in Human Brain of Alzheimer’s Disease and their Effects on Biological Pathways	Akeem Sanni
P-19	N-Glycan Alterations in Kidney of Rats Chronically Exposed to Glyphosate-Based Herbicide	Favour Chukwubueze
P-20	Heart Cut 2D-LC in a Single Chromatograph for a Difficult Isomeric Separation	Siddharth Jaya Sajeevan J
P-21	Investigating the Effects of Alteration in Lipid Profile on Biological Pathways in Diabetic Patients Treated with Different Drugs	Waziha Purba
P-22	LC-PRM-MS/MS Reveals Significant Metabolomic Alterations in Parkinson’s Disease Frontal Lobe Tissue	Odunayo Oluokun

P-23	The Effect of Chiral Changes on Antibodies, Detection, and Sample Preparation: A Study of Epimeric Beta Amyloids	Arzoo Patel
P-24	In vivo Stable Labeling (GlyProSILC) of Mitochondria Glycans and Proteins	Judith Nwaiwu
P-25	Characterizing Insect-Mediated Microbial Degradation of Insecticides Through LC Methodologies	Maria Olds
P-26	LC-MS/MS-Based Approach for Examining Disease-Related N-Glycopeptides in Small Extracellular Vesicles: A Case Study on Traumatic Brain Injury	Ayobami Oluokun
P-27	Unveiling Glycan Profiles to Study Breast Cancer Brain Metastasis	Joy Solomon
P-28	Models, Metrics, and Methods for Greening Analytical and Preparative Chromatography	Troy Handlovic
P-29	LC-MS/MS-Based Metabolic Profiling: Investigating Serum and CSF in TBI Patients	Sarah Sahioun
P-30	Glycome Profiling of Small Extracellular Vesicle N-glycans as Disease Biomarkers: A Traumatic Brain Injury Case Study	Esther Oji
P-31	Understanding Protein Accumulation in Cleome Seeds Using NanoLC-MS/MS-Based Proteomics	Fang Chen
P-32	Proteomic Insights into Fusarium Oxysporum Adaptation and Host Interaction: A Study of Cotton Root Influence on Pathogen Protein Expression	Sarah Metwally
P-33	Exploring Metabolic Diversity: A Non-Targeted Metabolomics Study of Cleome gynandra and Cleome hassleriana	Sarah Metwally