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Monday, May 19th		
Time		
9:00 - 9:15		
Conference opening/Intro - (MU 220, Turquoise)		
9:15 - 10:00		
Plenary: Peter Willis - Climbing the TRL Ladder to Space for the Next Generation of Astrobiology Missions		
10:00 - 10:25		
Coffee Break (Ventana B)		
Parallel - I		Parallel - II
10:25 - 10:30		10:25 - 10:30
Intro - Session Chair- Lutz Rammann (MU 220 Turquoise)	Intro - Session Chair- Tom Linn (MU 243C Ventana C)	
Topic: DiElectrochroma and Electrochromics in Biosensors and Separators	Topic: Sensors, Biomarkers, and Bioanalysis	
10:30 - 11:00		
Intro - Corfuța Găutu - Integration of Electrokinetic and Hydrodynamic Forces in Microfluidic Platforms for Microbiological Applications	Intro - Daniel Chiu - Digital Flow Cytometry	
11:00 - 11:20		11:00 - 11:20
Dr. Shih, Delany Applying Electrochromics to Recover and Analyze Barcodes Encoded Nanoparticle Biomarkers from Remote Regions	Dr. Fering, Aron Continuous Flow Acoustic Cytometry With Automated Data Analysis	
11:20 - 11:40		11:20 - 11:40
Dr. Yaman, Tat Deepika Reddy Label Free DiElectrochromic Biosensors Using OH- Cyclic Interact with Acetophenone	Dr. Whelan, Richard A New Paradigm Of Cancer Cancer Biomarker Enabled By Long-Read Sequencing	
10:40 - 10:20		10:40 - 10:20
Dr. Mens, Wout Polarizable Characterization Using Bubble Ratio Concentration Profiles: A Robust Model For DiElectrochromic Transport	Dr. Mitchell, Sarah Using Electrochromics to Separate Tumor Derived Nanoparticles from Biological Fluids to Determine Biomarker Point of Origin	
LUNCH (provided by MSB): Lunch Talk by Dr. Cui (in situ covalent labeling with microfluidics for profiling protein-protein while structural changes in live cells)		
12:00 - 13:00		
Intro - Session Chair- Steve Lunte (MU 220 Turquoise)	Intro - Session Chair- Ashley Ray-Co-Chair Tat Deepika Reddy (MU 243C Ventana C)	
Topic: Microscale approaches microfluidics in Space Exploration	Topic: Environmental Microfluidics	
13:00 - 13:35		
Intro - Maza Mirzaidi - Microfluidic Devices for Environmental and Space-Based Biosensors in Space Life Science Investigations	Intro - Long Long - Bubble-Based Separation Techniques for Microfluidics: Inspired by a Natural Phenomenon	
13:35 - 13:55		13:35 - 13:55
Dr. Ros, Alexander A Non-Competitive Fixed-target Devices for Protein X-ray Crystallography at the Compact x-ray Light Source	Dr. Ramadani, Raul Determining the Hydrolytic Corrosion Kinetics of Biomaterials by Capillary Electrophoresis-Mass Spectrometry: A New Approach in Nanomedicine	
13:55 - 14:15		13:55 - 14:15
Dr. Harrison, Christopher Analyzing Deep Eutectic Solvents for the Collection and Analysis of Chemical Microsamples	Dr. Anstötz, David Determining the Hydrodynamic Dimensions of Dispersal Nanoparticles via Capillary Zone Electrophoresis-Taylor Dispersion Analysis (CZE-TDA)	
14:15 - 14:35		14:15 - 14:35
Dr. Oublen, Ben Breaking the Barriers to Chemocasting Analysis to Spaceflight	Dr. Lockett, Matthew A screening platform for organophosphate chemical responses in acute and prolonged PFAS exposure	
Coffee Break (Ventana B)		
14:35 - 16:00		
Poster Session: Group 1 (Ventana B)		
16:00 - 16:05		
Intro - Session Chair- Stuart Bosen (MU 220 Turquoise)	Intro - Session Chair- Francisco Da Silva (MU 243C Ventana C)	
Topic: Microfluidic sample preparation for bioanalysis I	Topic: 3D Printing and Materials	
16:05 - 16:35		
Intro - Dong Suo Chang - Non-destructive Forensic Document Examination of Document Colorimetric Inks by Raman- Capillary Electrophoresis	Intro - Severine Le Gac - Studying and Improving the Dynamic Capability of Stereolithography (SLA) Resins	
16:35 - 16:55		16:35 - 16:55
Dr. Liu, Chenzhen Online integrated microfluidic platform for the detection of 1,2,4-triazole substituted glycans via a microarray-assisted platform coupled capillary electrophoresis	Dr. Woolley, Adam Integrated 3D printed microfluidics for combined microfluidic extraction, solidphase extraction and electrochromic of protein and metabolites	
16:55 - 17:15		16:55 - 17:15
Dr. Caporaso, Andrea Solid-state microfluidic platform for the separation of far-infrared vesicles analyzed by Liquid- Based Resonance	Dr. De Jesus, David Photomechanically 3D Printing of Electrochromic Microfluidic Devices with Integrated Porous Membranes	
17:15 - 17:35		17:15 - 17:35
Dr. Kham, Takayuki Continuous Flow Inkjet Dry Coating by Surface-Induced Inkjetting: Coupling Electrochromics-Mass Spectrometry	Dr. Sosa, Lygiamme Analyzing Electrochromical Sensor Using Laser Induced Grating on Adhesive Layer: Microfluidic Detection for Ilic and Acetic Acid Detection	
17:35 - 17:55		17:35 - 17:55
Dr. Wu, Wei The First DiElectrochromic Electrochromic Detection of DNA From Plasma Using a Novel Cylindrical Cell Electrochromic Sensor	Dr. Sankar, Nandini Sensitive Droplet Injection Platform for Nanoparticle Concentration Time-Resolved Fourier-Transform Crystallography at X-ray Free-Electron Source	
18:00 - 19:00		
CAFEL Tour (meeting location TBD, sign up required)		

Tuesday, May 20th		
Time		
8:00 - 9:00	CCELT Tour (meeting location TBD, sign up required)	
9:00 - 9:15	Intro - 10:20-12:30, Turquoise) Karen Waldron, Steve Weber, Susan Darling	
Scies Award		
9:15 - 10:00	Robert Kennedy - New Tools for Exploring Brain Chemistry	
10:00 - 10:25	Coffee Break (Ventana B)	
	Parallel - I	Parallel - II
10:25 - 10:30	Intro - Session Chair Wenxun Zhang (MU 230 Turquoise)	Intro - Session Chair Renee Lee (MU 241C Ventana C)
	Topic: Microscale sample preparation for bioanalysis (II)	Topic: Organ-on-a-chip
10:30 - 11:00	NI - Nathan Swani - Inline Optimization of Diagnostics Separations on Multiple Cellular Biophysical Metrics Through On-chip Impedance Cytometry	NI - Ashley Ross - New Organ-on-Chip Tissue Culture Platforms for Subsecond Detection Against the Gut-Brain-Immune Axis
11:00 - 11:20	NI - Hagen, Mark - High Resolution Separations of Bacterial, Viral, and Fungal Pathogens	NI - Minnie Doshi, Ann Ferrara - Detection and Development of a Biomimetic Blood-Brain Barrier on-Chip using a Microfluidic Approach
11:20 - 11:40	NI - Ramesh, Ravi - High Resolution Separation and Concentration And Detection of Chemicals From Large-Volume Samples	NI - Gutierrez, Gabriela - Human Airway Basal Culture With Single-Drop Serial Dilution in 3D Printed Microfluidic Device
10:40 - 12:00	NI - Sanchez-Sola, Ana - Optimization of Methods for Screening of Chemicals For Evaluation of Cytotoxicity From Fruit Fly Products Extracts	NI - Roger, Michael - Functionalized Immune Array For Diagnosis On A Microfluidic Device
12:00 - 12:00	LUNCH (Provided by MSR)	
12:00 - 13:05	Intro - Session Chair Chris Harrison Co-Chair Chenchen Liu (MU 230 Turquoise)	Intro - Session Chair Kevin Joo (MU 241C Ventana C)
	Topic: Point-of-care applications	Topic: Omics
13:05 - 13:25	NI - Mayra Lissimari - Paper Analytical Device and Machine Vision for Screening the Effect of Anticancer Medications of Clinical Care Settings in Tumor-Specific Areas	NI - Neil Kolhekar - Polymerase Free Precision Medicine: New Technologies for Improved Understanding of Human Health and Disease
13:30 - 13:55	NI - Ross, Christian - Flow Based Device Designed for Single-Cell DNA Sequencing and PCR-Based Identification for Cancer Resection Detection	NI - Hu, Yuxi - Microfluidic Microfluidic Mechanisms Enabling Improved Functionalized Inductively Coupled Plasma-Induced Spectroscopy Using SCKA-Base
13:55 - 14:15	NI - Wang, Chao - Microfluidic Supported Rapid, Accurate Detection of Infectious Diseases Diagnosis	NI - Lawless, Anna - Increasing the Sensitivity of Capillary Electrophoresis Analysis Of Functionalized Lipid Glycans
14:15 - 14:35	NI - Mehta, Siddhant A - Porous Capillary Microfluidic Device Instrument for On-Site Analysis of Infectious Diseases	NI - Michael, Yulia - Microfluidic Integrated Carbon Columns for the Detection of Biomarkers Separation of Protein Glycans and Lipid Glycans
Coffee Break (Ventana B)		
14:35 - 16:00	Poster Session: Group 2 (Ventana B)	
16:00 - 16:05	Intro - Session Chair Christopher Baker (MU 230 Turquoise)	Intro - Session Chair Michael Roper (MU 241C Ventana C)
	Topic: Bio-Nanoparticle Analysis	Topic: Microfluidic platforms for integrated separation and detection
16:05 - 16:35	NI - Kenneth Marcus - High Purity And High Resolution Isolations Of Extracellular Vesicles With Capillary Channelled Polymer (CFC) Fiber Columns And Spin-down Tips	NI - Frascidi da Silva - Microfluidic Integrated platform for the detection of pathogenic bacteria and proteomic detectors to 3D-printed microfluidic devices
16:35 - 16:55	NI - Simon, Lisa - Extracellular Vesicle-Associated Protein Activity in Blood-Based Cancer Detection by Electrokinetic Methods	NI - Singh, Udaya - On the Role of Cationic Flow of a Particulate Latex Droplet for Integrated Separation and Detection
16:55 - 17:15	NI - Sommer, David - Resolving Surface-Charge Density Distributions Of Polymeric Nanoparticles	NI - Bha, Nandini - Bioinspired An Integrated Porous Polymeric Membrane-Based Microfluidic Channel With Non-Porous Micro-Reservoirs For
17:15 - 17:35	NI - Cassin, Pagan - Resonance-Enhanced Surface Plasmon Scattering Spectroscopy On Microfluidic Platforms	NI - Jermolaitis, Jevge - Single-Cell Microfluidic Biophysical Characterization Through Tactile Electrosensory External Forces To 3D-printed Microfluidic Devices
Conference Dinner @ Culinary Dropout Tempe		
18:00-18:30: Bus leaves leave near MU (Return from restaurant starting @ 21:30 pm)		

Wednesday, May 21st		
Time	Wed Parallel -I	Wed Parallel -II
9:00 - 9:05	<b>Intro - Session Chair - Lisa Holland (MU 220 Turquoise)</b>	<b>Intro - Session Chair - Alexandra Ross (MU 241C Ventana C)</b>
	Topic: Pharma and biopharma applications	Topic: Digital, droplet and centrifugal microfluidics
9:05 - 9:35	<b>IN - Stephen O'Riordan: Continuous Manufacturing of Fibratenoan Using Online UPLC- Based PAT: An Enabling Technology for Commercialization of a Synthetic Peptide</b>	<b>IN - Tom Lion: Multiplexed Protein and miRNA Analysis in Digital Microfluidic Arrays</b>
	<b>D1: Gudmund, Andreas &amp; Hegstad: Non-covalent Thapsigargin Loading Of Protein In Aqueous Dication Surface Covalently Grafted Polymers</b>	<b>D1: Li, Chong: Digital Copolymer Electrophoresis With Dual Preconcentration For Sub-Micron Scale Sample Analysis</b>
9:35 - 9:55	<b>D2: Bower, M: Machine Learning Characterization Of The Biophysical Properties Of Human Papillomavirus Like Particles With Resonance Pulse Sensing</b>	<b>D2: Doppler, D: Fluidic Time-Resolved Microfluidics For High-Throughput Crystallization Enabled with Droplet Ejection</b>
	<b>D3: Trimpert, Ann &amp; Neumann: Biochemically mediated and size of single particles and real-time detection of particle-particle binding events with transverse AC electrophoresis (TACE)</b>	<b>D3: Huang, Hsueh A: Universal Way For High-Throughput Light-Induced Microcapillary Connection</b>
Coffee Break (Ventana B)		
10:35 - 12:05	Flux Tube	
12:00 - 13:00	<b>LUNCH (Provided by MSB)</b> Lunch Talk by Dr. Grosskreutz (job opportunities at Lilly)	
13:00 - 13:05	Intro - MU220 Turquoise	
13:05 - 13:50	<b>Plenary: Neo Li Jeon - Proteomic, Genomic, and Phenotypic Analysis of Angiogenesis in an Open Microfluidic Microphysiological System (MPS)</b>	
13:50 - 14:15	Coffee Break (Ventana B)	
14:15 - 14:20	<b>Intro - Session Chair - Ravi Ramamurti (MU 220 Turquoise)</b>	<b>Intro - Session Chair - Ken Marcus (MU 241C Ventana C)</b>
	Topic: MS-coupling, hyphenation and new trends	Topic: LC/CE novel approaches
14:20 - 14:50	<b>IN - Ryan Kelly: Separations Platform For Single-Cell Proteome Profiling in 5 Minutes or Less</b>	<b>IN - Jim Edwards: Capillary LC-MS/MS to Shed Light on the Dark Metabolome: Structural Identification of Novel Metabolite</b>
14:50 - 15:10	<b>D1: Petrusak, Laura: High throughput screening of domestic yeast products from engineered <i>Capsella</i> by droplet microfluidics coupled to cyclic ion mobility mass spectrometry</b>	<b>D1: Lurie, Susan: Microchip Electrophoresis with Bipolar Electrophoresis Facilitated Electrochromatography as Method for the Analysis of Volatile Pharmaceutical Samples</b>
15:10 - 15:30	<b>D2: Jock, Kevin CE-MS: Integrating Liquid And Gas-Phase Mobility For Enhanced Peptide Structural Analysis</b>	<b>D2: Baker, Christopher: Capillary Electrophoresis-Taylor Dispersion Analysis Combined With Computations And Generative AI Predictions To Reveal Structure And Dynamics Of Protein Arginocyclotides</b>
15:30 - 15:55	<b>D3: Algan, Sara: Microfluidic Immunoassay In Tandem with MALDI-MS for the Analysis of Isolate Amino Acid Fingerprints</b>	<b>D3: Holland, Lisa: Native Electrophoresis Assay Of HSPs And HSPs Influenced By Permeability</b>
Young Scientist Awards		
MSB 2026 Presentation		
MSB 2025 Closing		
17:00	CXFL Tour (meeting location TBD, sign up required)	