2024 BC Proteomics & Metabolomics Network Symposium

February 21st, 8:00 am – 5:30 pm, SFU Diamond Family Auditorium

8:00 AM	Registration & ThermoFisher breakfast Poster setup (Auditorium, backstage)
8:45 AM	Welcome Remark, Symposium Chair: **Bingyun Sun**
9:00 AM	Morning Proteomics section, Chair: **Thibault Mayor**
	Keynote: **Lindsay Pino**, Talus Biosciences *Transcription Factor Profiling by Mass Spectrometry to Discover and Develop Cancer Therapeutics*
9:45 AM	Lightening talks (4 x 3min)
10:00 AM	Coffee break
10:30 AM	**Chris Overall**, UBC Center for Blood Research *The Great Escape: SARS-CoV-2 Viral Transmission and Unconventional Secretion of Viral Proteins Revealed by Proteomics*
	Sandi Spencer Miko, BC Cancer Research Center *Evaluating the efficacy and reproducibility of protein extraction methods*
	Georgina Barnabas, BC Children's Hospital Research Institute *Proteomics and personalized patient-derived xenograft models offer treatment opportunities for a rare pediatric progressive malignancy within a clinically actionable timeframe*
	Calvin Yip, UBC Biochemistry & Molecular Biology *Using hydrogen-deuterium exchange mass spectrometry for molecular structural analysis of dynamic macromolecular assemblies*
12:00 PM	Lunch break & Agilent workshop (Halpern Center with lunch, pre-registration only)
12:30 PM	Poster presentation (backstage of the auditorium)
2:00 PM	Afternoon Metabolomics section, Chair: **Yvonne Lamers**
	Keynote: **Daniel Raftery**, University of Washington, Anesthesiology and Pain Medicine *So Why is Biomarker Validation So Hard in Metabolomics? What's Working and Not (Yet) Working*

2:45 PM	Lightening talks (4 x 3min)
3:00 PM	Coffee/Snack break
3:30 PM	**Rogers Linington**, SFU Chemistry *Challenges with Compositional Analysis in Complex Mixture Analysis*
	Helena Petrosova, UViC Genome BC Proteomics Centre *Mass spectrometry imaging to study the role of lipids in Leptospira infection*
	Julian Lum, BC Cancer Research Center *The three M's in cancer: Metabolites, Microbiome, and the Microenvironment*
	Renelle Myers, BC Cancer Research Center *Breathomics*
5:00 PM	Poster Prizes & Closing Remark (Poster removal)

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POSTER LIST

#1: *Mass-Spec based Proteomics Predicts the Involvement of ACAA2, ACBD4, and CPT1C in Pyruvate Dehydrogenase Kinase I Modulation of Lipid Metabolism.*
Michael G. Atser, Ava Kornum, Chelsea Wenyonu, Renata Moravcova, Jason Rogalski, Haoning Howard Cen, James D. Johnson

#2: *Investigation of the immunopeptidome from multiple genetically different major histocompatibility (MHC) alleles by mild acid elution (MAE) for vaccine development.*
Teesha C Baker, Lucy Song, Charley Cai, Selwyn Gu, Leonard J Foster

#3: *Discovery and Visualization of the Hidden Relationships among N-Glycosylation, Disulfide Bonds, and Membrane Topology.*
Manthan Desai, Amritpal Singh, David Pham, Syed Rafid Chowdhury, Yasna Javanmardi, Bingyun Sun

#4: *Investigating ligand interactions on the membrane proteome through membrane mimetic thermal proteome profiling.*
Rupinder Singh Jandu, Hiroyuki Aoki, Mohan Babu. Franck Duong

#5: *Chaperoning through time: Revealing the temporal manner of DNAJA2 client selectivity through combined pulse-SILAC and BioID proximity labelling.*
Shriya Kamat, Gaetano Calabrese, Cristen Molzahn, Heather Baker, Mikko Taipale, Thibault Mayor

#6: *Calibration and Absolute Quantitation by LC-MS/MS.*
Soroush Torkamannejad, Ge Chang, Fabusuyi A. Aroge, and Bingyun Sun

#7: *Detection of Shed Surface Proteins and Processed Oncoproteoforms in Biofluids*.
Moones Yadegari, Philipp F. Lange

#8: *Identification of aberrantly spliced proteoforms in a leukemia cell line with a recurrent point mutation in SF3B1 using RNA-sequencing and shotgun proteomics*.
Jenny J. Zhong; Gian L. Negri, Peter C. Stirling, David D.Y. Chen, Gregg B. Morin

#9: *Proteome-wide mechanisms of hyperinsulinemia and sucrose-induced insulin resistance and obesity.*
Haoning Howard Cen, Liam Hall, Vincent R. Richard, Yi Han Xia, Søs Skovsø, José Diego Botezelli, Xiaoke Hu, Jason Collier, René P. Zahedi, Christoph H. Borchers, James D. Johnson

#10: *A decision-tree approach for triacylglycerols annotation of data-independent acquisition based lipidomics data.*
Victor C.L. Lee, Khanh C.K. Nguyen, Linglan Zhu, Thomas J. Velenosi

#11: *The unbiased construction of a set of bioindicators to characterize the developmental stages of R. catesbeiana tadpoles.*
Rikke Poulsen, Emma M. Field, Angela M. Jackson, Shireen H. Jackman, Haley Kuecks Winger, David Goodlett, Caren Helbing, Martin Hansen, Helena Petrosova

#12: *Discovering new metabolic connections through administration of stable isotope precursors in plant benzenoid metabolism.*
Harley Gordon, Peter Constabel

#13: *Understanding the metabolic consequences of the systemic alanine depletion in pancreatic ductal adenocarcinoma.*
Abisola Kehinde and Seth Parker

#14: *A multimodal MSI pipeline to uncover metabolic heterogeneity in ovarian tumors*.
Alora Keyowski, Bailey Maltesen, Nathalie Costie, Gillian Carleton, Angela Jackson, Julian Lum Helena Petrosova, David Goodlett, Kyle Duncan

#15: *Workflow Optimization for Single-cell Metabolomic Profiling of Ovarian Cancer Cells.*
Gillian Leach; Helena Petrosova; Angela Jackson; Gillian Carleton; Ron M. A. Heeren; Eva Cuypers; Julian J. Lum; Mikhail E. Belov; David R. Goodlett

#16: *Distance from metabolomic sweet spots predicts lifespan and healthspan*.
Olga Vishnyakova, Joosung Min, Xiaowei Song, Kenneth Rockwood, Angela Brooks-Wilson, Lloyd Elliott

#17: *The Chemical and Biosynthetic Response of Paraburkholderia megapolitana under Antibiotic Stress.*
Zaroubi, L.; Paulo, B. S.; Fung, E; Britton, R. A.; Eustaquio, A. S.; Linington, R. G.