

# BUILDING THE FUTURE: RESEARCH TRAINEE DAY & LECTURE SERIES



MARCH 7, 2024 8.30 AM - 4.30 PM UBC Life Sciences Centre



Graduate and Postdoctoral Education Office med.gradpostdoc@ubc.ca



## Building the Future: Research Trainee Day & Lecture Series

|               | I  |   |
|---------------|--|---|
| 8:30 - 9:00   | REGISTRATION and BREAKFAST (LSC West Atrium)   |   |
| 9:00 - 9:10   | LAND ACKNOWLEDGEMENT & WELCOME ADDRESS (LSC 1002)  Dr. Roger Wong (Vice Dean, Education; Clinical Professor, Division of Geriatric Medicine)  Dr. Miriam Spering (Associate Dean, Graduate and Postdoctoral Education; Associate Professor, Dept of Ophthalmology and Visual Sciences) |   |
| 9:10 - 9:40   | KEYNOTE I (LSC 1002)  Dr. Catriona Hippman, PhD, CGC  Postdoctoral Research Fellow, Department of Obstetrics and Gynaecology, UBC  Moderator: Dr. Miriam Spering   |   |
| 9:45 - 11:45  | Faculty of Medicine 3 MT Thesis HEAT (LSC 1002)  |   |
| 9:45 - 11:45  | TRAINEE ORAL PRESENTATIONS Session I BIOMEDICAL (LSC 1312)   |   |
| 11:45 - 12:30 | LUNCH (LSC West Atrium)  |   |
| 12:30 - 14:00 | TRAINEE POSTER SESSION (LSC West Atrium)   |   |
| 13:30 - 15:30 | TRAINEE ORAL PRESENTATIONS   |   |
|               | Session II (CLINICAL)<br>Room: LSC 1002  | Session III (POPULATION HEALTH)<br>Room: LSC 1312 |
| 15:30 - 15:45 | COFFEE BREAK (West Atrium)   |   |
| 15:45 - 16:15 | KEYNOTE II (LSC 1002)  Dr. Miffy Cheng, PhD  Nano Medicine Network Research Fellow in Gene Therapy  Department of Biochemistry and Molecular Biology, UBC  Moderator: Dr. Stefka H. Marinova-Todd, Ed.D. (Associate Professor, School of Audiology & Speech Sciences)                  |   |
| 16:15 - 16:30 | CLOSING: Award Presentations and Closing Remarks (LSC 1002)  Dr. Miriam Spering  |   |



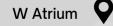
### WELLBEING AT BUILDING THE FUTURE



LSC 1391 &1392

9:45 - 15:45 Wellness Lounge

Drop-in, low stimulation space for relaxation & joy. Create DIY tools for self-care, get crafty with art supplies, and connect with colleagues over games & tea.







**ASMAE EL-BOUHALI** 

Clinical Counsellor for Faculty of Medicine graduate students

9:45 - 12:30

Wellness Booth

Q&A with Wellbeing Support Coordinator, Alisha Lettman

11:45 - 13:00

Smoothie Bike

Movement Break with MoveU

13:15 - 13:45

Meet & Greet

with Asmae

LSC 1312

15:30-15:45

Wellbeing Trivia + Prizes with MoveU





#### **PROGRAM DETAILS**

Faculty of Medicine 3MT Thesis HEAT (9.45 – 11.45 | LSC 1002)

Moderator: Layan Bashi, Masters Student, Women+ and Children's Health Sciences (WACH)

| S.no. | Presenter  | Presentation Title  |
|-------|--|---|
| 1     | Saif Dababneh MD/PhD Student   | A human stem cell-based heart model to study a newly described cardiac arrhythmia syndrome  |
| 2     | Yi Gu<br>PhD Student, Neuroscience                                       | Cognitive reserve: Investigate the efficacy of resistance training on cognitive reserve in older adults with subcortical ischemic vascular cognitive impairment |
| 3     | Christina Whang<br>Masters Student, Experimental Medicine                | Fatigue properties of the first dorsal interosseus muscle in spinal cord injury   |
| 4     | Vivien Dang Masters Student, Biochemistry & Molecular Biology            | Identification of Microglial Receptors Responsive to Gut<br>Microbiota-Derived Metabolites  |
| 5     | Kimberly Wong<br>Masters Student, Biochemistry &<br>Molecular Biology    | Relationship between Enzyme and Organism Phenotype in Evolution   |
| 6     | Stephanie U Masters Student, Population & Public Health                  | Does night shift work age you prematurely?  |
| 7     | Hiro Ito<br>Masters Student, Population & Public<br>Health               | Living Well with Dementia in the Japanese Canadian Community  |
| 8     | Astou Thiam PhD Student, Rehabilitation Sciences                         | Exploring the experiences of African immigrants in Metro Vancouver through a lens of hospitality  |
| 9     | Signe MacLennan PhD Student, Medical Genetics                            | Driving in circles: how circular DNA drives cancer treatment resistance   |
| 10    | Lianne Cho<br>MD/PhD Student   | Characterization of depression, suicidal ideation, and anxiety among adults who are homeless or precariously housed   |
| 11    | Ramlogan Sowamber PhD Student, Medical Genetics                          | Assessing the impact of Opportunistic Salpingectomy (OS) from a molecular perspective.  |
| 12    | Andy Jia<br>Masters Student, Interdisciplinary<br>Oncology               | Enhancing Early Relapse Detection in Testicular Cancer through Rolling Circle Amplification of microRNA Biomarkers  |
| 13    | Daniel Elesin Masters Student, Rehabilitation Sciences                   | Impact of Aerobic Fitness on Intra-Individual Variability in Older Adults with Stroke   |
| 14    | Parisa Golesorkhi<br>Masters Student, Pathology & Laboratory<br>Medicine | Development of bifunctional antibacterial coating for platelet storage bags   |

#### **Faculty of Medicine**

| 15 | Wan Hei (Melody) Cheng Masters Student, Pathology & Laboratory Medicine | Inflammation in heart disease: Who needs to take the drugs?                |
|----|---|--|
| 16 | Christopher Lamb  Masters Student, Rehabilitation Sciences              | Brain sensorimotor changes associated with symptomatic knee osteoarthritis |



#### **ORAL PRESENTATIONS**

SESSION I: BIOMEDICAL (09:45 - 11:45 | Room: LSC 1312)

Moderator: Sanarya Aljaf, PhD Student, Anesthesiology, Pharmacology and Therapeutics

| S.no. | Presenter   | Presentation Title  |
|-------|---|---|
| 1     | Allyson Banville<br>PhD Student, Interdisciplinary<br>Oncology  | B cell self-reactivity: bane of autoimmune disease, boon of anti-tumor immunity?  |
| 2     | Tony Liang Masters Student, Bioinformatics                      | Nextflow Pipeline for Benchmarking Integrative Multi-Omics Methods for Disease Classification   |
| 3     | Vriti Bhagat PhD Student, Pathology & Laboratory Medicine       | Investigating Proinsulin Processing Deficiencies in Non-Obese Diabetic Mice   |
| 4     | Denitsa Vasileva<br>PhD Student, Bioinformatics                 | The Centenarian Epigenetic Clock in the Canadian Longitudinal Study on Aging  |
| 5     | Eric Xiang PhD Student, Experimental Medicine                   | Macrophage-Smooth Muscle Cell Interactions in Atherosclerotic Foam Cell Formation   |
| 6     | Rachel Cederberg Postdoctoral Fellow, Integrative Oncology      | Ly6C+ monocytes and monocyte-derived dendritic cells boost the efficacy of adoptive T-cell therapy in murine lymphoma                             |
| 7     | Margarita Kapustina<br>Masters Student, Neuroscience            | The cell-type-specific spatial organization of the anterior thalamic nuclei of the mouse brain  |
| 8     | Torin Halvorson<br>MD/PhD Student                               | MHC II-specific chimeric antigen receptor regulatory T cells for transplantation tolerance  |
| 9     | Fang Fang Li PhD Student, Pathology & Laboratory Medicine       | Phage immunoprecipitation sequencing in the aetiological diagnosis of neurological disorders  |
| 10    | Liam Johnston<br>Masters Student, Interdisciplinary<br>Oncology | Increased Glut1 Expression on CD8+ T cells Improves Adoptive Cellular Therapy   |
| 11    | Christy (Oi Ting) Kwok<br>Masters Student, Neuroscience         | Novel, Standardized Social Interaction Arena for Determination of Brain Circuits Underlying Mouse Social Behavior                                 |
| 12    | Jana Jajarmi<br>Masters Student, Interdisciplinary<br>Oncology  | Identifying Modifiers of EGFR Induced Tumourigenesis to Develop New Therapeutic Strategies for Lung Cancer  |
| 13    | Heather Betz PhD Student, Medical Genetics                      | ULK1 Inhibition to Overcome Autophagy-Mediated Venetoclax<br>Resistance in Acute Myeloid Leukemia   |
| 14    | Xin Qin<br>PhD Student, Neuroscience                            | Significant roles of supramammillary nucleus (SuM) vigilance and memory deficits in spontaneously hypertensive (SHR) rat, an animal model of ADHD |

SESSION II: CLINICAL (13:30- 15:30, LSC 1002)

Moderator: Philipp Kreyenmeier, PhD student, Neuroscience

| S.no. | Presenter  | Presentation Title   |
|-------|--|--|
| 1     | Madeline Lauener PhD Student, Pathology & Laboratory Medicine                    | NKreg cells associated with the suppression of cGvHD prevent CD4+ T cell proliferation through PD-1 and LAG-3 dependent pathways.                      |
| 2     | Karan Parekh PhD Student, Experimental Medicine                                  | Leveraging Liquid Biopsy ctDNA Analysis to Predict Treatment<br>Response in Late-Stage Prostate Cancer   |
| 3     | Rachel Woima<br>Masters Student, Women+ and<br>Children's Health Sciences (WACH) | The Progesterone Challenge Test to identify populations at high risk for endometrial cancer: a diagnostic accuracy systematic review and meta-analysis |
| 4     | Matt Noseworthy<br>PhD Student, Neuroscience                                     | Supporting Aging through Green Exercise  |
| 5     | Spencer Anderson PhD Student, Medical Genetics                                   | Genetic variants in CYP1B1, ANKLE2 and HLA-DRB1 are associated with l-asparaginase-induced hypersensitivity  |
| 6     | Monica Bronowski<br>Masters Student, Experimental Medicine                       | Exploring Donor-to-Recipient Transfer of Urinary Microbiome in Kidney Transplants through Shotgun Metagenomics and 16S Sequencing                      |
| 7     | Uyanga Ganbat PhD Student, Experimental Medicine                                 | Quadriceps Muscle Thickness Measured by Point-of-Care Ultrasound and Hospital Length of Stay   |
| 8     | Che-Min Lee<br>PhD Student, Interdisciplinary Oncology                           | Blood pressure medication to improve head and neck cancer radiation treatment  |
| 9     | Teesha Baker Postdoctoral Fellow, Pediatrics                                     | Innovative CAR-NK Cell Therapy for High-Risk Neuroblastoma:<br>Advancing Pediatric Oncology  |
| 10    | Anjana Rajendran<br>Masters Student, Neuroscience                                | Characterizing the relationship between inter-neuronal activation in the primary motor cortex (M1) and clinical motor outcome measures after stroke    |
| 11    | Guilherme Moraes Balbim Postdoctoral Fellow, Physical Therapy                    | 24-hour activity cycle behaviours and brain volume in people with mild cognitive impairment: A compositional analysis.                                 |
| 12    | Andy An  MD/PhD Student  | Machine learning analysis of the neonatal transcriptome identifies predictive biomarkers for neonatal sepsis at birth                                  |

SESSION III: Population Health (13:30- 15:30, LSC 1312)

Moderator: Allyson Banville, PhD Student, Interdisciplinary Oncology

| S.no. | Presenter   | Presentation Title   |
|-------|---|--|
| 1     | Nirma Vadlamudi<br>Postdoctoral Fellow, Pediatrics                  | Healthcare Resource Use for Acute Respiratory Syncytial Virus<br>Pediatric Hospitalization in infants from Canada: Immunization<br>Monitoring Program ACTive (IMPACT) analysis                                 |
| 2     | Saud Lingawi<br>PhD Student, Biomedical Engineering                 | Wearable Devices for Out-of-Hospital Cardiac Arrest: A Population Survey on Design Preferences and Willingness to Adhere   |
| 3     | Kidus Achalu<br>Masters Student, Pathology &<br>Laboratory Medicine | Proteomic Profiles of Youth Athletes at Pre- and Post- Sports-Related Concussion   |
| 4     | Sahi Hajirawala<br>Masters Student, Experimental<br>Medicine        | Characterizing socio-demographic, clinical, and substance use-related factors associated with employment in treatment-seeking adults with opioid use disorder (OUD) initiating opioid agonist therapies (OATs) |
| 5     | Janna Griffioen PhD Student, Rehabilitation Sciences                | Understanding Social Support: A Qualitative Study Exploring post-TBI dynamics  |
| 6     | Kelvin Wu<br>Masters Student, Experimental<br>Medicine              | Factors associated with frequency of drug checking service utilization in British Columbia   |
| 7     | Codie Primeau Postdoctoral Fellow, Rehabilitation Sciences          | What challenges and opportunities do physiotherapists encounter in integrating interventions to promote sleep for individuals with arthritis   |
| 8     | Ramin Rezaeianzadeh<br>Masters Student, Experimental<br>Medicine    | Investigating the Association Between Aromatase Inhibitors and Dry Eye Disease Among Women with Breast Cancer  |

#### POSTER SESSION (12:30 - 14:00, LSC West Atrium)

| S.no. | Presenter  | Presentation Title  |
|-------|--|---|
| 1     | Jeffrey Tang<br>Masters Student, Bioinformatics                                    | CytokineFinder: Benchmarking methods and databases for identifying cytokines  |
| 2     | Arshdeep Khurana<br>Masters Student, Biomedical Engg.                              | Intraoperative near-infrared imaging for assessment of human kidney transplant hemodynamics   |
| 3     | Claire Hales<br>Postdoctoral Fellow, Psychology                                    | Computational modeling reveals the use of differing decision-making strategies that explain performance on a cognitively effortful attention task in rats |
| 4     | Mohammad Ghodsi<br>Masters Student, Pathology &<br>Laboratory Medicine             | Preliminary description of neurological blood-based biomarkers in survivors of intimate partner violence  |
| 5     | Michael Hall PhD Student, Interdisciplinary Oncology                               | Pyruvate supplementation modifies the metabolic landscape and improves effector molecule expression in hypoxic CD8+ T cells                               |
| 6     | Hebah Hussaina<br>Masters Student, Women+ and<br>Children's Health Sciences (WACH) | Supporting Greater Vancouver Secondary School Students' mental health through time outdoors: A qualitative investigation                                  |
| 7     | Daniel Sastre Martinez Postdoctoral Fellow, Pharmacology & Therapeutics            | Understanding the gating of cardiac channel IKs using Markov models of channels with less than 4 functional voltage sensors                               |
| 8     | Sarah Hanstock<br>PhD Student, Experimental Medicine                               | The protective effects of butyrate in kidney stone disease  |
| 9     | Enav Zusman PhD Student, Women+ and Children's Health Sciences (WACH)              | Associations between prenatal exposure of serotonergic medications and biobehavioral stress regulation: A systematic review                               |
| 10    | Brittany Lim<br>Masters Student, Experimental<br>Medicine                          | Cost of care associated with the treatment of fibular hemimelia in British Columbia   |
| 11    | Olivia Kalau<br>Masters Student, Neuroscience                                      | Myelin heterogeneity index of the superior longitudinal fasciculus predicts cognitive decline in relapsing remitting Multiple Sclerosis                   |
| 12    | Razieh Sadat Banijamali<br>PhD Student, Pathology & Laboratory<br>Medicine         | Mesenchymal stem cell-derived extracellular vesicles: a new strategy for delivery of oncolytic coxsackievirus B3 in breast cancer cell                    |
| 13    | Rishika Daswani<br>Masters Student, Pharmacology &<br>Therapeutics                 | Measurement of single cell and spatial multiomics within the brains of rats following fentanyl self-administration  |
| 14    | Tali Romero Masters Student, Pathology & Laboratory Medicine                       | Association of neurological blood-biomarkers with baseline neuroimaging and cognitive assessments in adults with moderate-severe congenital heart disease |
| 15    | Marie Johns PhD Student, Medical Genetics  | Leveraging tri-tissue transcriptomics to elucidate neurovascular pathophysiology in Alzheimer's Disease   |



#### **Faculty of Medicine**

| 16 | Irene Chen Masters Student, Women+ and Children's Health Sciences (WACH)        | Social media as a tool to explore mental health in children living with a solid organ transplant and their families                                       |
|----|---|---|
| 17 | Julliet Zama<br>Masters Student, Pathology &<br>Laboratory Medicine             | The impact of hepatitis C virus clearance on markers of immune aging and inflammation in women living with and without HIV over time.                     |
| 18 | Sarah Okun<br>Masters Student, Interdisciplinary<br>Oncology                    | Characterizing the interactome of the MET Exon 14 oncogene in lung adenocarcinoma   |
| 19 | Layan Bashi<br>Masters Student, Women+ and<br>Children's Health Sciences (WACH) | XEing the Difference': Variability of Xenon MRI in Children with Primary Ciliary Dyskinesia   |
| 20 | Breanna Nelson<br>PhD Student, Experimental Medicine                            | Baseline Characteristics, Structural Brain Differences, and Cognitive Performance between Patients with Long-COVID and those with Normal Recovery         |
| 21 | Zhihan Wang<br>Masters Student, Pathology &<br>Laboratory Medicine              | Unraveling the genetic determinants of susceptibility and resistance in CVB3-induced myocarditis  |
| 22 | Viorica Hrincu PhD Student, Experimental Medicine                               | Building consensus: Practical social media recommendations for dementia prevention research   |
| 23 | Nicole Loewen Masters Student, Women+ and Children's Health Sciences (WACH)     | The impact of a novel care team on the health outcomes of neonates with medical complexity: Protocol for an evaluation of a model of care                 |
| 24 | Fabiola Wu<br>Masters Student, Pathology &<br>Laboratory Medicine               | Different metabolomic profiles in adult compared to pediatric chronic graft-versus-host disease   |
| 25 | Sidney Saint Masters Student, Experimental Medicine                             | Exploring psychotic symptoms after brain injury in Vancouver's Downtown East Side   |
| 26 | Tyrone Ly<br>Masters Student, Neuroscience                                      | Functional brain networks underlying working memory deficit in Schizophrenia detectable by task fMRI  |
| 27 | Lisa Zhan PhD Student, Interdisciplinary Oncology                               | Unlocking the potential: TME-priming radiation strategies for improving car-t cell efficacy in solid tumour treatment                                     |
| 28 | Venessa Thorsen Masters Student, Women+ and Children's Health Sciences (WACH)   | Knowledge to Action: Developing a Knowledge Translation Strategy to Improve Detection and Management of Familial Hypercholesterolemia in British Columbia |
| 29 | Lucy Chi<br>Masters Student, Biochemistry &<br>Molecular Biology                | Going viral: Sex heterogeneity of human astrocytes' infection response through single-cell proteomics   |
| 30 | Sarah Varghese<br>Masters Student, Experimental<br>Medicine                     | An oncofetal chondroitin sulfate targeting Immunocytokine   |

## **Faculty of Medicine**

| 31 | Julianne McLeod  | Disruptions in resting-state causal brain connectivity in females   |
|----|--|---|
| 31 | Masters Student, Rehabilitation Sciences                                 | following subacute concussion   |
| 32 | Meredith Clark Masters Student, Interdisciplinary Oncology               | Repurposing telmisartan as an immunotherapy adjuvant: Modulating CD8+ T cell activation in the tumour                             |
| 33 | Dina Abbas PhD Student, Experimental Medicine                            | Decoding the impact of chronic vaping on respiratory airway through single-cell sequencing  |
| 34 | Liam Byrne<br>Masters Student, Pathology &<br>Laboratory Medicine        | Extracting antibiotic resistance genes from wastewater  |
| 35 | Ava Momeni<br>Masters Student, Neuroscience                              | Functional Brain Networks Underlying Recall and Imagination   |
| 36 | Ainiah Raquib PhD Student, Pathology & Laboratory Medicine               | Identification of a novel interactor of endogenous SS18- SSX through mass spectrometry-based analysis in synovial sarcoma cells   |
| 37 | Jane Kim<br>Masters Student, Experimental<br>Medicine                    | Quality of life as an outcome of opioid use disorder treatment with methadone and opium tincture                                  |
| 38 | Yu-Chi (Serena) Chuang<br>Masters Student, Interdisciplinary<br>Oncology | Investigating SHPRH as a Risk Factor for Lung Adenocarcinoma Initiation and Development   |
| 39 | Beatrice Gonzales Undergraduate Student, Biomedical Engineering          | Validation of an 2D interactive technological system for quantifying pediatric Kinematic Data - out-of-plane joint angle accuracy |