DEPARTMENT OF MEDICINE & EXPERIMENTAL MEDICINE PROGRAM

2022 RESEARCH EXPO

EVENT PROGRAM
MAY 02/2022 12:30PM - 5:00PM
Welcome from the UBC Department of Medicine and Experimental Medicine Program!

On behalf of the UBC Department of Medicine Research Office and Experimental Medicine Graduate Program, we are delighted to welcome you to the UBC Department of Medicine’s 2022 Research Expo!

We are pleased to celebrate the success of our faculty members and highlight the work of Department of Medicine researchers who are recognized as leaders in their respective fields. We also wish to highlight the central role played by trainees in moving our science forward and are excited for this opportunity to showcase the work of our remarkable young researchers as they blaze the trail ahead.

The COVID-19 pandemic has brought into sharp focus the critical role of science and translational research plays in society, how experimental medicine methods contribute to our understanding of health and disease and potential strategies to address these challenges. Our program spans research from translational basic science to population health and data science. We have an impressive roster of faculty speakers and student presenters, coming together to showcase our latest discoveries and celebrate our successes.

We are grateful for your leadership in creating a culture of scholarship, innovation, and research here at the Department of Medicine. We hope that you enjoy all this year’s Research Expo has to offer and take this opportunity to connect with your peers, especially during our in-person poster session at the end of the oral presentations.

Warmest regards,

Anita Palepu, Teresa S.M. Tsang, Tricia S. Tang

RESEARCH EXPO 2022 | page 2
<table>
<thead>
<tr>
<th>TIME</th>
<th>SESSION</th>
<th>SPEAKERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:30 - 12:40</td>
<td>Welcome and Opening Remarks</td>
<td>Dr. Anita Palepu</td>
</tr>
<tr>
<td>12:40 - 13:10</td>
<td><strong>Keynote:</strong> Smooth Muscle Foam Cells: A Unique Target for Atherosclerosis Regression</td>
<td>Dr. Gordon Francis</td>
</tr>
<tr>
<td>13:10 - 13:25</td>
<td>Beyond Ejection Fraction: Exploring Non-traditional Echocardiographic Methods to Identify Patients at Risk for Heart Failure</td>
<td>Dr. Darwin Yeung</td>
</tr>
<tr>
<td>13:25 - 14:05</td>
<td><strong>Trainee Oral Presentations</strong></td>
<td>Shayda Swann &amp; Shelley Tognazzini</td>
</tr>
<tr>
<td></td>
<td>Assessing Age at Menopause in Women Living With and Without HIV in Two Studies: Children and Women: AntiRetrovirals and Markers of Aging (CARMA) and the British Columbia CARMA-CHIWOS Collaboration (BCC3)</td>
<td>Dr. Darwin Yeung</td>
</tr>
<tr>
<td></td>
<td>The Use of Normobaric Hyperoxia in Post-Cardiac Arrest Patients With Hypoxic Ischemic Brain Injury</td>
<td>Tison Schoenthal</td>
</tr>
<tr>
<td></td>
<td>Dementia Research on Social Media: Current Practices and Challenges Ahead</td>
<td>Viorica Hrincu</td>
</tr>
<tr>
<td></td>
<td>An Investigation of HIV Integrase Inhibitor Resistance Mutations in gp41 in Clinical Samples</td>
<td>Hanwei Sudderuddin</td>
</tr>
<tr>
<td>14:05 - 14:20</td>
<td>Precision Medicine to Tailor Prevention Strategies for Endometrial Cancer</td>
<td>Dr. Aline Talhouk</td>
</tr>
<tr>
<td>14:20 - 14:35</td>
<td>Drug Checking as a Harm Reduction Tool to Combat the Overdose Crisis</td>
<td>Dr. Lianping Ti</td>
</tr>
<tr>
<td>14:35 - 15:20</td>
<td><strong>Panel Discussion</strong></td>
<td>Dr. Gordon Francis, Dr. Tricia Tang, Dr. Sharon Marsh, Dr. Aline Talhouk, Dr. Lianping Ti</td>
</tr>
<tr>
<td>15:20 - 15:30</td>
<td><strong>Awards and Closing</strong></td>
<td>Dr. Tricia Tang</td>
</tr>
<tr>
<td>15:30 - 17:00</td>
<td><strong>Trainee Poster Presentations &amp; Reception</strong></td>
<td>Jim Pattison Pavilion Rooms 1887/1888/1891</td>
</tr>
</tbody>
</table>
Meet Our Speakers

Keynote Speaker

**Dr. Gordon Francis** is a Clinician Scientist studying the role of cholesterol metabolism in the development, treatment, and prevention of atherosclerosis, the leading cause of death internationally in the forms of coronary heart disease and stroke. His laboratory made the observation that arterial smooth muscle cells make up the majority of foam cells in atherosclerosis, rather than macrophages as previously believed. The differences in cholesterol handling by smooth muscle cells and macrophages provide opportunities for new therapies to mobilize cholesterol from smooth muscle cell foam cells, not addressed by currently available treatments.

**Dr. Darwin Yeung** received his medical degree from the University of Toronto, followed by residency training in Internal Medicine and Cardiology at the University of British Columbia. He completed advanced fellowships in echocardiography at Vancouver General Hospital and at the Mayo Clinic, and is currently pursuing a Master of Public Health degree at the Harvard School of Public Health. His current research focuses on the application of strain imaging in the diagnosis and treatment of patients with cardiovascular disease.

**Dr. Aline Talhouk** is an Assistant Professor in the UBC Department of Obstetrics and Gynaecology. She is also the Director of Data Science and Informatics at OVCARE, BC’s ovarian and gynecological cancer research program. Her research program is on developing and implementing predictive models to improve patient care in women’s health and oncology.

**Dr. Lianping Ti** is an Assistant Professor in the Division of Social Medicine within the UBC Department of Medicine. She is also a Research Scientist and Health Administrative Data Lead for the BC Centre on Substance Use. An epidemiologist by training, her research largely focuses on understanding the intersections between substance use, infectious diseases, and the delivery and efficacy of healthcare systems.
Meet Our Speakers

**Dr. Anita Palepu** is Head of the Department of Medicine and Professor in the Division of General Internal Medicine at UBC. She is the Physician Program Director for the St. Paul’s Hospital Medicine Program and works as a General Internist. Dr. Palepu conducts her research at the Centre for Health Evaluation and Outcome Sciences and has a research program that falls under the broad umbrella of urban health research, with particular interest in vulnerable populations such as homeless persons and drug users.

**Dr. Tricia Tang** is an Associate Professor in the Department of Medicine, Division of Endocrinology at the UBC Faculty of Medicine. She is also a Behavioral Scientist and registered Clinical Psychologist with an expertise in diabetes translation research in high-risk and medically underserved populations.

**Dr. Sharon Marsh** holds a degree in Genetics from Nottingham University in England and a PhD in Medical Genetics from the University of Aberdeen in Scotland. Following her PhD, she crossed the ocean to work in various roles in an NIH funded cancer pharmacogenomics lab at Washington University in St Louis. Subsequently she worked in Montreal as an Associate Scientific Director in a Genome Canada funded centre before returning to academia at the University of Alberta’s Faculty of Pharmacy and Pharmaceutical Sciences in Edmonton. Sharon joined UBC’s Support Programs to Advance Research Capacity (SPARC) in 2017 as a Health Research Development Officer.
Shayda Swann is a MD/PhD student in the Department of Experimental Medicine where she studies how hormones impact the health and well-being of women living with HIV. Shelly Tognazzini is a Peer Research Associate and community voice for women living with HIV. They are both passionate advocates for women’s healthy aging.

The Oak Tree Clinic | Supervised By: Dr. Melanie Murray & Dr. Hélène Côté

Tison Schoenthal graduated from UBC-Okanagan in 2016 and most recently from TRU with a diploma in Respiratory Therapy and have since been working at Vancouver General Hospital. I began my master’s under Dr. Mypinder Sekhon in the ICU with the focus of ventilation management in post-cardiac arrest hypoxic ischemic brain injury.

VGH ICU Translational Research Lab | Supervised By: Dr. Mypinder Sekhon

Viorica Hrincu is a PhD student under the supervision of Dr. Julie Robillard at UBC. Her current project is on the ethics of social media use in dementia prevention research. Her research interests include: ethics and health, tech ethics, dementia, cognition, subjectivity, and personal identity.

Nest Lab | Supervised By: Julie Robillard

Hanwei Sudderuddin is a first-year MSc student in the Experimental Medicine program at UBC and a Graduate Research Assistant with the Research Laboratories at the BC Centre for Excellence in HIV/AIDS. Together with his supervisor Dr. Chanson Brumme, Hanwei studies HIV genetics, evolution and drug resistance in different clinical contexts.

Brumme Lab, BC-CfE | Supervised By: Dr. Chanson Brumme
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Supervisor</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicole Bailey</td>
<td>Kramer Lab, ICORD</td>
<td>Supervised By: Dr. John (Kip) Kramer</td>
<td>A scoping review: Indigenous experience of physical pain in Canada</td>
</tr>
<tr>
<td>Hannah Crepeault</td>
<td>BC Centre on Substance Use</td>
<td>Supervised By: Dr. M. Eugenia Socias/Dr. Lianping Ti</td>
<td>Demographic and socio–structural factors associated with a history of non–fatal overdose among individuals with prescription–type opioid use disorder: Findings from a pragmatic randomized control trial</td>
</tr>
<tr>
<td>Narsis Daftarian</td>
<td>Arthritis Research Canada</td>
<td>Supervised By: Dr. J. Antonio Avina–Zubieta</td>
<td>RetINal Toxicity And HydroxyChloroquine Therapy (INTACT): protocol for a prospective population–based cohort study</td>
</tr>
<tr>
<td>Bianca Fukakusa</td>
<td>Harris Lab</td>
<td>Supervised By: Dr Kevin Harris</td>
<td>A Feasibility Study: Physical Activity Counselling for Children with Congenital Heart Disease (CHD)</td>
</tr>
<tr>
<td>Tenanye Haglund</td>
<td>Kelleher Lab, Life Science Institute</td>
<td>Supervised By: Dr. Dermot Kelleher</td>
<td>Genomic variance favouring clonal dominance in Barrett’s Esophagus’ stem cell populations</td>
</tr>
<tr>
<td>Sarah Hanstock</td>
<td>Lange Lab, The Stone Centre</td>
<td>Supervised By: Dr. Dirk Lange</td>
<td>The role of the gastrointestinal microbiome in oxalate transport and metabolism in kidney stone formation</td>
</tr>
<tr>
<td>Katarzyna Kabacińska</td>
<td>Neuroscience, Engagement and Smart Tech Lab</td>
<td>Supervised By: Dr. Julie Robillard</td>
<td>Using socially assistive robots to support children and parents in the hospital waiting room</td>
</tr>
<tr>
<td>Tamila Kalimullina</td>
<td>Autonomic Research Laboratory, ICORD</td>
<td>Supervised By: Dr. Andrei Krassioukov</td>
<td>A Non–invasive Neuroprosthesis for Cardiovascular Recovery after Spinal Cord Injury</td>
</tr>
<tr>
<td>Iryna Kayda</td>
<td>Microbiology and Virology Laboratory, BC Children’s and Women’s Hospital</td>
<td>Supervised By: Dr. David Goldfarb</td>
<td>Sensitivity of gargle samples compared to swabs for SARS–CoV–2 detection with nucleic acid amplification testing: a systematic review and potential meta–analysis</td>
</tr>
<tr>
<td>Jane Kim</td>
<td>Addictions and Concurrent Disorders Research Group</td>
<td>Supervised By: Dr. Michael Krausz</td>
<td>Impacts of early and late homelessness on adulthood consequences</td>
</tr>
</tbody>
</table>
**Trainee Poster Presenters**

**Huitao Liu**  
Luo Lab, Center for Heart Lung Innovation  
Supervised By: Dr. Honglin Luo  

**Ana Luque**  
Alan So Lab  
Supervised By: Dr. Alan So/ Dr. Claudia Chavez-Munoz  

**Matthew Manson**  
mHealth ConVisSation Labs  
Supervised By: Dr. Richard Lester  

**Brynn McMillan**  
Vaccine Evaluation Center, BC Children’s Hospital Research Institute/BC Centre for Disease Control  
Supervised By: Dr. Manish Sadarangani/Dr. Agatha Jassem  

**Dalia Ibrahim Othman**  
Lange Lab, The Stone Centre  
Supervised By: Dr. Dirk Lange  

**Naomi Potter**  
Quon Lab, Centre for Heart Lung Innovation  
Supervised By: Dr. Bradley Quon  

**Miguel Prieto**  
Quon Lab, Centre for Heart and Lung Innovation  
Supervised By: Dr. Bradley Quon  

**Dominic Skitsko**  
Moritz Lab  
Supervised By: Dr. Orson Moritz  

**Ruixuan Yang**  
Dr. Caigan Du’s Lab  
Supervised By: Dr. David Harriman  

- miRNA modification of Coxsackievirus for lung cancer therapy  
- Modular bioreactor for engineering a kidney  
- Two-way SMS messaging to understand post-discharge care challenges and reduce readmission rates to an Acute Mental Health Ward in Vancouver, BC: A Protocol  
- Prospective Evaluation of Immunity After COVID-19 Vaccines: The PREVENT–COVID Study  
- The Role of the Urinary Microbiome in Determining Response to Intravesical BCG in Patients with High Risk Non-Muscle Invasive Bladder Cancer.  
- Calprotectin predicts cystic fibrosis pulmonary exacerbations in equivocal cases  
- Systematic review of prevalence and incidence of nontuberculous mycobacteria in cystic fibrosis population  
- Characterization of retinal function and morphology in GNAT1-knockout X. laevis.  
- The Urinary Microbiome as an Indicator of Changing Health States in Kidney Transplant Patients
A special thank you to our presenters, organizers and judges

2022 Research Expo Adjudicators
- Dr. Tashmeeta Ahad
- Dr. Shazhan Amed
- Dr. Hélène Côté
- Dr. Kathleen Deering
- Dr. Quynh Doan
- Dr. Xuesen Dong
- Dr. Doris Doudet
- Dr. Nadia Fairbairn
- Dr. Danya Fast
- Dr. Matthias Görges
- Dr. Dirk Lange
- Dr. Kenneth Madden
- Dr. Orson Moritz
- Dr. Claudia Chavez-Munoz
- Dr. Seonaid Nolan
- Dr. Will Panenka
- Dr. Julie Robillard
- Dr. Christian Schuetz
- Dr. Babak Shadgan
- Dr. Eugenia Socias
- Dr. Sam Wiseman
- Dr. Alexander Wyatt

2022 Research Expo Organizing Committee
- Delaram Behnami
- Diane Kim
- Dr. Anita Palepu
- Dr. Tricia Tang
- Dr. Teresa Tsang
- Sharon Xu

2022 Research Expo Student Committee
- Vanessa Diamond
- Jialin Han
- Nina Huang
- Tamila Kalimullina
- Jane Kim
- Jenny Lee
- Kasra Moolooghy
- Ari Rotenberg
- Hanwei Sudderuddin

Thank you for joining us!