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## LAND ACKNOWLEDGEMENT

The lands of what is now known as British Columbia have been cared for and inhabited by Indigenous Peoples since time immemorial. We specifically acknowledge that UBC's Vancouver Point Grey campus is situated on the traditional, ancestral, and unceded territory of the Musqueam people, and UBC's Okanagan campus is situated on the traditional, ancestral, and unceded territory of the Syilx people. It is in this recognition of being on unceded land where we will ground our conversations of research further.

We also recognize that the hybrid format of this year's conference means that participants will be joining us from many places, near and far, and we would like to acknowledge the traditional owners and caretakers of those lands.



James Hart / UBC Brand & Marketing

### **WHAT IS MURC?**

The Multidisciplinary Undergraduate Research Conference (MURC) is an annual celebration of undergraduate research happening on the UBC campus. At MURC, student researchers showcase their research in an oral or poster presentation format. Work presented at the conference includes undergraduate theses, directed studies and other faculty-supervised research-projects.

Our theme this year, "Dare to Discover, Dare to be Different," challenges researchers to embrace individuality and innovation, pushing beyond traditional boundaries. We aim to foster a spirit of discovery that encourages attendees to explore new perspectives, methodologies, and interdisciplinary approaches. This year's conference will focus on how breaking the mold in research can drive impactful change, both in academia and society.

### **THIS YEAR**



MULTIDISCIPLINARY UNDERGRADUATE RESEARCH CONFERENCE

IS EXCITED TO FEATURE

337 PRESENTATIONS

**FROM** 

**531 UNIQUE PRESENTERS** 

### **SCHEDULE**

### March 15, 2025

Get an overview of the day

Time	Event	Location
8:00 am - 9:30 am	Wave 1 Virtual Presentation	Online
8:00 am - 9:30 am	Presenter Registration	HEBB Lobby
9:30 am - 10:30 am	Keynote Presentation with Dr. Andrew Jorgensen	HEBB 100
10:45 am - 12:00 pm	Wave 2 Oral Presentations	IKB, HENN
	Wave 2 Poster Presentations	Alumni Centre
12:15 pm - 1:30 pm	Wave 3 Oral Presentations	IKB, HENN
	Wave 3 Poster Presentations	Alumni Centre
1:45 pm - 2:15 pm	30 Minutes 30 Memories	Alumni Centre Achievement Lounge
2:30 pm - 3:15 pm	Rapid Roundtable Networking	Abdul Ladha, 2nd Floor
3:30 pm - 4:45 pm	Wave 4 Oral Presentations	IKB, HENN
	Wave 4 Poster Presentations	Alumni Centre
5:00 pm - 6:15 pm	Wave 5 Oral Presentations	IKB, HENN
	Wave 5 Poster Presentations	Alumni Centre

### PLANNING COMMITTEE

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### **KEYNOTE SPEAKER**

### Dr. Andrew Jorgensen

Andrew is a Professor of Sociology and Founding Director of the Climate & Society Lab at the University of British Columbia. As an environmental macrosociologist trained in global political economy, he conducts research on the human dimensions of global and regional environmental change, with a focus on the societal causes and consequences of the climate crisis.

He also has longstanding interests in the political economy of development, inequality, and population health disparities. Prior to coming to UBC in Fall of 2023, Andrew was a Professor and Chairperson for the Department of Sociology and Professor of Environmental Studies at Boston College.



In 2020, Andrew received the Fred Buttel Distinguished Contribution Award from the American Sociological Association's Section on Environmental Sociology. Recently, he was an appointed author of the Fifth National Climate Assessment of the US Global Change Research Program (published in late 2023), and an appointed member of the US National Advisory Environmental Health Sciences Council for the National Institute of Environmental Health Sciences (resigned from council after moving to Canada and joining UBC). He is currently an affiliated Research Fellow in the Department of Theoretical Economics at Vilnius University.

Andrew's award-winning research appears in various disciplinary and interdisciplinary journals, including American Sociological Review, American Journal of Sociology, Nature Climate Change, Nature Communications, Environmental Research Letters, Social Forces, Science of the Total Environment, Social Problems, Sustainability Science, Sociological Science, WIREs Climate Change, Ecological Economics, Social Science Research, Energy Policy, Global Environmental Politics, and Energy Research and Social Science. He is coauthor of Super Polluters: Tackling the World's Largest Sites of Climate-Disrupting Emissions, published by Columbia University Press, and he has coedited multiple volumes, handbooks, and journal special issues.

### **ROUNDTABLE SPEAKERS**

### **Graeme Bant**



Graeme has a BA in History and an MA in Political Science from UBC, He has navigated an exciting career path from the health sector to his current role as a Senior Policy Analyst for the City of Delta

### **Katherine Feng**

Katherine is a first-year UBC medical student with a background in Pharmacology. She's worked in biochemistry research, BC Children's Hospital, and BC Cancer, and is now involved in advocacy and podcasting.



### Kiarah O'Kane



Kiarah is a PhD student in Clinical Psychology at UBC, researching sexual well-being in 2SLGBTQ+ individuals and couples. Their Vanier-funded work explores how gender euphoria and pleasure shape well-being.

### **ROUNDTABLE SPEAKERS**

### Viviana Shiffman



Viviana is a PhD candidate in Dr. Bill Sheel's lab, where she explores age and sex differences in the pulmonary system. Her work also examines how a serratus anterior fascial plane block impacts muscle and lung function—pushing the boundaries of human physiology research!

### **Max Abercrombie**

Max is a Master student researching skeletal muscle recovery after spinal cord injury to improve nerve transfer surgery.
From UBC varsity rugby to research in carpal tunnel, swallowing, and aging, Max bridges sports, rehab, and medicine.



### Joshua Santeusanio



Joshua is a PhD candidate and sessional lecturer in UBC's Political Science department. As an educator and researcher, he brings valuable insights into the world of politics and academia.

### ROGERS COLLABORATION

## **OROGERS**

Rogers has kindly sponsored MURC 2025. With their support, we were able to put this conference together. We are grateful for their continued contribution in promoting undergraduate research here at UBC.

### FEATURED PROGRAMMING

### **BOOTHING**

Want to learn more about research opportunities available at UBC and beyond? Stop by our boothing area to talk with local research-based companies, UBC programs, and student organizations to take your research to the next level! Boothing organizations include the BC Children's Hospital Research Institute, the Canadian Journal of Undergraduate Research (CJUR), McCall MacBain Scholarships, UBC Career Centre and more! Taking place from 10:15 am - 1:30 pm and 3:15 pm - 6:00 pm inside **Jack** Poole Hall in the Alumni Centre, come visit the following organizations!













THE UNIVERSITY OF BRITISH COLUMBIA UBC CAREER CENTRE























### FEATURED PROGRAMMING



### **PHOTOBOOTH**

Stop by our photo booth in the Alumni Centre Achievement Lounge and capture your favourite memories with your friends and family or fellow presenters!! Be sure to tag us @ubcmurc or #ubcmurc2025

### **SPIN-THE-WHEEL**

Test your luck with our spin the wheel feature! Prizes consist of various MURC merch such as stickers, tote bags and a polaroid film for you to capture your MURC experience! Find us inside the Alumni Centre Achievement Lounge.



### 30 MINUTES, 30 MEMORIES

This year we're adding a little something different! From **1:45 - 2:15 pm** you'll have the opportunity to take a polaroid picture to take home! So bring your peeps and remember to line up early - only the first 30 groups get free polaroids.

### **ACKNOWLEDGEMENTS**

We would like to thank **Chapman Learning Commons, Woodward Library, and David Lam Library** for providing us with technology for this event.

Special thanks to **Ariel Lee** and **Cristina Felekan** for supporting with the design of this program guide.

### **REVIEW COMMITTEE**

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Kiarash (Kia) Bahari

Lucas Kuhn

Mathew Graham

Si-ah Choi

### **Poster Presentations Workshop**

Amalia Urloiu

Fides Arguelles

Nicola Wray

Nika Martin

### **Getting Into Research Workshop**

Anjali Parthasarathy

Susan Zhang

Zaina Alkurdi

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Ethan Ma Lucy Feng Tomisin Adewoyin

Evelynne Pallard Manya Sethi Tony Vorakijkamjorn

Fiorella Vargas Mariah Xu Vani Ravichander

Francesca Carenini Mathias Henkelman Zoe Zhao



## Wave 1

VIRTUAL PRESENTATIONS

# WAVE 1 VIRTUAL PRESENTATIONS

### **ROOM 1**

https://ubc.zoom.us/j/67253571580?pwd=XXkXbaCAuCC6V1Pp0x5zGCaQhgEohD.1

**Melting Frontiers: Navigating Canada's Role in Arctic Geopolitics and Economic Expansion** *Frankie Chan* 

Cultural Adaptation of the Chinese Version of MyHEARTSMAP: a Digital Psychosocial Screening Tool

Aelan Chung, Ryan Shuai, Alyssa Yang

The Comparative Advantages and Disadvantages of Implementing AI in the Global South and Global North

Nevan Leo, Lily Ren

### ROOM 2

https://ubc.zoom.us/j/61203196007?pwd=zG6qp8B4KJxerk3KGBKjTMBR3wyiLg.1

Person to Screen: Apps changing the present mental health care Chris Huh, Ashley Kim, Amanda Huang

Understanding the Role of N-linked Glycosylation on SNAT2 in Pancreatic Adenocarcinoma

Kiana Pashaoskooie

Enhancing Digital Literacy in British Columbia: Insights from an Environmental Scan of Public Library Programming

Sreeparna Rajesh

Readiness of 4th year Doctor of Pharmacy Students to Engage in Prescribing in British Columbia

Harveen Sohi



### **HENN 301**

Investigating the Genetic and Molecular Mechanisms of Neurite Pruning in C. elegans: Roles of Latrophilin and Teneurin in Neurodevelopmental Pathways

Sophia Yevlash

**Regulation of Geek and Masculine Coded Online Communities** *Kyle Baanders* 

Belief, Benefit, and the Brain: (Non)religious Belief and its Link to Wellbeing and EEG Alpha Asymmetry

Romy Zhang

Developing an Al Method to Automatically Segment Organs-at-Risk in Gynecologic Brachytherapy

Marusia Shevchuk

#### **HENN 302**

Immunogenicity of the 23-valent pneumococcal polysaccharide vaccine in children at increased risk of pneumococcal disease

Linkai Lu

Early Life Antibiotic Exposure: Unraveling Gut Microbiome Alterations and Their Impact on Neuroimmune Interactions

Omar Husain Syed

**To Invest or Not? Evaluating Canadian Hydropower Infrastructure in Eastern Indonesia** *Winston Irwin, Logan Anschell, Patricia Nugrahani* 

'The Pervert is You': (G)I-dle, Going 'NXDE', and the Potentials of the Feminist Girl Crush Miles Chiao

### **HENN 304**

Molecular effects of polyphenols from different kombucha fermentation products in HepG2 liver cells

Gloria Klein

"All my favorite places are climbing places": Centering Children's Voices to Promote Risky Play in Early Learning and Child Care Centres

Gabrielle Martinez

Capitalizing on canola plant-soil interactions to improve agricultural efficiency Hanna Aayub, Isaac Hung, Eden Breker

Global Patterns of Mosquito Microbiome: A Meta-Analysis of Species-Specific and Geographic Variability

Salva Sherif

#### **IKB 157**

nuCloud: The New Nucleotide-Based Data Storage Cloud

Narjis Alhusseini, Chaehyeon Lee, Lucy Hao, Piyush Awasthi, Qingru Kong, Tina Wang, Achint Lail

**Investigate the Relationship Between Musicianship and Perceived Complexity** *Katherine Hsu, Spencer Dai* 

#### **Analyzing Food Security Among BC Seniors**

Rachel Dong, Christopher Gomez-Jones, Dianah Hayati, Rachel Leong, Angelia Tu

**Exploring Barriers and Facilitators to Assistive Technology Access and Use Among Different Cultural Groups** 

Nathan Chang

Men's Mental Health Support Groups and Masculinity

Joshua Onukwulu

### **IKB 158**

Relational Narratives of Community and Wellbeing Among Chinese-Canadians Joshua Peng

**Evaluating the extent of forest loss caused by the Prince Rupert Gas Transmission Pipeline (PRGT) construction in British Columbia** *Farin Sreya* 

Earthquakes in Japan: A Case Study of Recent Intraplate Seismic Activities Mary Vo

**Evaluating the Impact of Flattening Filter-Free Beams on Skin Dose in Breast Cancer Radiotherapy** 

Yuruo (Jenny) Zhu

Active Lives, Cultural Ties: Cultural Influences on Physical Activity Among Elderly Punjabi Immigrant Women

Hargun Dhillon

#### **IKB 185**

Relationship between forest-based livelihoods and conservation within BC's First Nations Kayla Foudy

Utilizing BrkA passenger domain to surface display lead remediator EC10 on Escherichia coli

Norman Li, Renee Li, Arshia Tavangar, Le Qi Chen

Advancing Diagnosis of Heart Failure Phenotypes Through Biomarker Data and Computational Omics

Roger Samson

**Effects of Hut Handling on Mice** 

Vrinda Sabitha

### **IKB 191**

**A Model of Root Zonation in A. thaliana** *Riley Wheadon* 

**Effects of Rhizobia on Extrafloral Nectar Production and Parasitoid Wasp Fitness** *Cameron Donnelly* 

Investigating the role of CaMKII in presynaptic protein assembly using photo-activatable CaMKII

Teagan Richman-Taylor

Regulation of Mitochondrial Health by Gp78-Sec61 Interaction at RiboMERCs *Yaseen Mandoub Hashemi* 

### **ALUMNI CENTRE: JACK POOLE HALL**

Waste Sorting Process in a Recycling Center in Kyaka II

Alexandra Smitton, Christian Nolde, Olivia Huish, Ziqian Zhang

How does literature on gender disparities suggest the potential role of donor storytelling in order to help kidney donors make informed and voluntary decisions?

Justin Lee, Valerie Bi, Gurfathe Brar, Amelia Cha, Tushar Dhillon, Azuki Tokunaga

Surviving the 2021 heat dome with schizophrenia: A qualitative, interview-based unpacking of risks and vulnerabilities

Carson Wong, Lucy Hiscox

Investigating Fragile Histidine Triad (FHIT) Loss in Aggressive Diffuse Large B Cell Lymphoma

Jessie Ellena Hedrian, Anson Ng, Vivian Xu

Non-Invasive Spinal Cord Stimulation for Improving Bowel Function in Experimental Spinal Cord Injury

Lokavya Jain

Does Climate Change Drive Bat Range Expansion and the Emergence of Zoonotic Diseases?

Ethan Li

Characterizing Traumatic Brain Injury Prevalence in Concurrent Disorder Treatment In-Patient

Nikol Rybolov

Will inhibition of NOTCH signaling in combination with immune checkpoint blockade therapy improve outcomes in mice with triple negative breast cancer?

Nandini Soni, Olivia Wang, Bhavika Kapoor, Ivy Guo

Early Lexical Comprehension: How Infants Begin to Understand Word Categories

Vanessa Dasilva, Menna Zanger, Brooke Aikins

### **ALUMNI CENTRE: JACK POOLE HALL**

**Food tastings: Potential as a nutrition intervention in long-term care** *Isabel Huang* 

Potential Effects of Estrogen on Alzheimer's Disease in Female APP/PS1 Mice Yuki Schuette, Caotao Qiu, Janelle Saada, Tosia Ozynska, Tyler Li

The retention rate of high concentrations of microplastics on marine copepods along the coasts of British Columbia

Karma Sadani, Alina Jarvis

The Effects of Fagus sylvatica Leaf Extract on the Growth Rate of Tetrahymena: A Concentration-Dependent Analysis

Jonassen Kenrick, Dilon Ezra Frendolin, Syifani Parinduri, Bernadette Puspa Widhiarum

Investigating Innovative Behaviour in Raccoons

Emma Lam

Age-Based Discrimination and Depressive Symptoms: Does Self-Perception of Aging Make a Difference?

Taima Gheriani

Characterizing urban vs. rural differences in substance use and related harms in British Columbia

Kaia Newman, Roham Fazeli, Diane Biju

Risk Prediction Models for Lung Cancer Screening: Systematic Review Olivia Ciulka, Andrew Keu, Yalda Khaje

**Investigating the role of Djp1 in peroxisomal membrane protein import** *Shreya Arora* 

Estimating Avian Influenza A(H5N1) Virus Fatality Rate In Potential Outbreaks Using Dempster-Shafer Theory

Alex Attazada, Tania Ghassemi Tari, Alex Zhang

### **ALUMNI CENTRE: JACK POOLE HALL**

Decoding L1PA2: A Prime Editing Barcoding Strategy to Uncover TE Roles in Neurodevelopment and Genome Evolution

Jugaad Chatha, William Lee

**How Does Sex Shape Brain Recovery? Exploring Post-Stroke Motor Cortex Excitability** *Nathan Lam* 

Tuberculosis Surveillance in the Context of Immigration in Canada: A Mini-Review Rozhin Ahmadirowhani, Adrian Bartolome, Tegbir Gill

An Emergent Danger: Clade 1b Monkeypox in Burundi and its Transmission Trends *Pearl Dhingra, Rachel Chiu, Jasraj Hundal, Gulbahar Mammetgurbanova, Howard Chen* 

Molecular mechanism of underground metabolism using p-nitrophenol degradation pathway

Miguel Roberto Tsai

How Variations in Microbiome Compositions Under Various Diets Associate with Inflammatory Bowel Diseases

Nethkini Liyanage, Rebecca Kim, Jaipinder Athwal, Salah ElKhalifa

Examining the Role of SLC38A2 in Glutamine Uptake: Implications for Targeted Therapy in Lymphomas

Lucas Moodley, Ella James, Alya Kaynak, Mackenzie Penton

All-in-One Smartphone Device for a Multicolor Fluorescence Sensing: Prototype Point-of-Care Devices for Analyte Detection in Healthcare, Environmental Monitoring, & More Reanne Robles

Innovative Strategies for Improving hiPSC derived 3D-bioprinting brain model Brodie Kelly, Raleigh Fisher, Filip Veselsky

**Blood Pressure VS Fuel Cells** 

**Iacob Yonathan** 

### **ALUMNI CENTRE: JACK POOLE HALL**

Clinical applications of gut microbia modulation for neuro disorders Vedika Handa

Understanding the Role of the BAF Chromatin Remodeling Complex in Axonal Regeneration After Peripheral Injury

Simrat Binning

The Role of IL-33 in Prostate Cancer: Therapy Resistance and Tumor Dormancy Hazel Leung

**Pan-Cancer Analysis On The Role Of B3GALT5 Expression In Cancer Metastasis** *Roshan Banymandhub* 

The effect of SNAIL inhibition on collective cell migration and metastasis Jaana Rodrigo, Tyler Foo, Sukhman Rangi, David Shao

**Does AOA Enhance Coral Quality and Quantity?** *Nicole Sia* 

**Light-driven synthesis of Aza-Bicyclohexanes** *Baiya Griffiths, Vera Parco* 

Increased Relative Humidity Promotes Abundance of Potentially Harmful Microbes in Dust Samples Aboard the International Space Station

Jagroop Randhawa, Parsa Khanbadr, Delphine Zhou, Simran Dhesi, Bhavya Mohan

**Identifying Regulators of PODO447 Binding In Cancer Cells** *Aidan Gallant* 

Experiences of Caregivers in the BC Children's Hospital PIVOT (Pediatric IV Outpatient Therapy) Program: A Mixed-Methods Study

Alyssa Wong, Jessie Luo

### **ALUMNI CENTRE: JACK POOLE HALL**

Efficacy of Targeted Alpha Therapy in GEP-NENs After Beta PRRT Progression: A Proposed Pilot Study

Saba Alipour, Kiana Bagherpour, Ashley Wong, Zubina Zafar

The in-vitro effects of IL-33's during prostate cancer dormancy and how can these effects lead to castration-resistant prostate cancer

Dihansa Amarasinghe, Jennifer Wang

**Uruguay: A Global Model of Sustainability** 

Rowan Flores

Virtual Nutrition and Cooking Program as Community-Based Lifestyle Interventions for Older Adults

Christina Yang, Ayasha Santoso, Catriona Fang, Diana Bratu

The Tardigrade DSUP Protein: A Novel Approach to DNA Damage Resistance in a Yeast Model

Lewis Hitchens

Kras activation and p16 inactivation alone in adult mice acinar cells is not effective in generating pancreatic ductal adenocarcinoma (PDAC)

Claire Li

**Identifying Adeno-Associated Virus Serotypes for Zebra Finch Pretectal Neurons** *Hsin-Chen Tsai* 

Behavioral Responses to Financial Losses in Cryptocurrency Rug Pulls: An Analysis of Investor Decision-Making Patterns

Xiaoyang Xi

A scoping review on health inequities in children living with health complexity: Incorporating an intersectional lens

Christina Zeng

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### **ALUMNI CENTRE: JACK POOLE HALL**

**Reduced Insulin Levels Suppress Pancreatic Cancer Growth in Mice** *Aman Mohammed* 

Correlation between Excessive Caffeine Intake and Cleft Lip/Palate Esther Kim, Simran Behniwal, Cartoon Jaitrong, Jerry Liu, Ashley Liu

Janus Kinase Inhibitor Exposure during Pregnancy in Immune-Mediated Inflammatory Disease: A Case Series of 3 Patients

Ainsley Needham

Involuntary Admission Under the BC Mental Health Act: A Call for Institutional Ethnography

Yoyo Do, Ayla Nohesara, Beatrice Soleil

Prevalence of Racial Disparities in Opioid Prescriptions and the Factors Influencing This Disparity

Deborah Beqo, Subin Mun, Serena Chan, Benjamin Huang, Jasman Dandiwal



### **HENN 301**

Effects of Tissue Loss Severity and Arch-Specificity on Gill Regeneration in Rainbow Trout Negar Norouziesfahani

Designing synthetic promoter sequences for oligodendrocytes using generative deep learning

Riya Alluri

Using Lung Clearance Index to Assess Treatment Response to Elexacaftor/Tezacaftor/Ivacaftor in Children With Cystic Fibrosis Rana Ghadymimahani

From Barley Fields to Biodiversity Havens: The Role of Grassland Set-Asides in Supporting Spiders

Juvraj Toor

#### **HENN 302**

Developing Video-Based Survey Methods to Uncover Impacts of Human Visitation on Rocky Intertidal Biodiversity

Mailyn Tran

How do earthquake characteristics and spatial variability influence the demand for and accessibility of microfinance in post-disaster recovery?

Michael Smith

Provincial Nomination Programs: A Space to Reimagine Immigrant-Indigenous Alliances, Liberation, and Reciprocal Social Relations

Annie Li

Navigating Identity: The Tradition of Adopting Preferred Names among Asian International Students in Anglo-Saxon Host Countries, Revisited

Emma Nguyen

### **HENN 304**

The Role of Merit and Grades in Academic Exclusion Logics: An Investigation of Education under State-Socialist Rule in the GDR

Emma Dierkes

Diplomatic Children: Foreign Service Households and Its Mobile Influence on Childhood Upbringing

Lulu Wang

The Journey to Education: How Distance Impacts Indigenous High School Completion in British Columbia

Manon Melkonyan

On Soap and Mirrors: Modernity's Contribution to the Crisis in Youths' Mental Health *Georgia Simkin* 

Exploring the Distribution of Increased Lumbar Spine Angle Across Body Segments During Cumulative Load-Matched Lifting Tasks

Rohin Kanwal

#### **IKB 157**

Validation of a next-generation antibody test for common childhood respiratory viral infections

Matthew Dichupa

The Type 3 Immune Response: A Pathway for Fibrosis Reduction in Crohn's Disease *Mya Bal* 

Synthesis of novel Ruthenium polypyridyl diphosphines for the electrocatalytic reduction of CO2

Graeme Taillefer

Characterizing the Impact of Laboratory Practices on Ozone-Based Chemiluminescence Measures of Blood-Borne Nitric Oxide

Albie Gong

### **IKB 158**

Acoustic monitoring of bumblebee (Igutchaq/Bombus spp.) activity in Arctic tundra Alexandre Beauchemin

How do the metabolomic profiles of root exudates from white lupin change in response to a phosphorus gradient over a 6-week growth period?

Arun Kumar

Beyond Length: Investigating Telomeric Structural Alterations and Neo- Telomeres in Cancer Through Multi-Platform Sequencing

David T. Lin

Determining the impact of quercetin polyphenols on the insulin secretion and apoptosis of primary human pancreatic  $\beta$ -cells

Brianna Tsuyuki, Edward Melnyk, Katrina Jewell

#### **IKB 185**

Impact of insulin receptor on gene expression, metabolic pathways, and survival outcomes in pancreatic ductal adenocarcinoma

Irene Li

**Designing Metal Complexes to Sustainably Convert Carbon Dioxide into Alcohol Fuels** *Jacqueline Mang* 

**Exercise-Induced Modulation of Monocyte Dysfunction Following Sepsis** *Sheena Jiang* 

Experiences of people with lived expertise of substance use working in multidisciplinary outpatient care facilities in British Columbia A mixed-methods study

Heather Wang, Jessica Chisholm, Mutia Juristika

### **IKB 191**

**Predicting Mutational Signatures From Whole Slide Images Using Al** *Ghazal Fallahpour* 

EMPHASize: Learning Modules for Health Professionals' Awareness on Weight Stigma and Eating Disorders

Sarah Pham

Proinflammatory Verrucomicrobiae and Oscillospiraceae are key bacterial taxa in a predictive model of progressive multiple sclerosis

Poppy Chaiboripan, Asha Octoman, Burak Ozkan, Elijah Uy, Carolyne You

A Quantitative Analysis of Trigeminal Nerve Sensitivity, Anxiety, and Language Proficiency: Repercussions of the Mammalian Dive Reflex in University Students

Marie-Claire Lantin

### **ALUMNI CENTRE: JACK POOLE HALL**

Employing a Student-Faculty Partnership to Support Innovative Education Sunny Qin, Mina Rim

Identifying Rehabilitation Navigator's Effects on Patient Referrals and Outcomes: Retrospective Medical Chart Review

Marvin Wu

Oil Industry Linguistics: Language as a Site of Contestation for Oil Culture *Minseo Choi* 

Modification of automated cardiac function prediction algorithms from non-expert echocardiographers in pediatric patients

Miku Wake

What are the key genes in the Rosaceae Family that influence sugar and acidity levels in fruit and how does their regulation vary across different species?

Seth Perera

The impact of dehydration on the metabolic physiology of the Tibetan frog, Nanorana parkeri, under climate change

Erandi Cerca Carreón, Elaine Huang

The Immune Regulatory Role of IL-33 in Prostate Cancer Dormancy

Krista Tannant

From Acceleration to Prevention: Mechanistic Insights into Viral-Induced Type 1 Diabetes in Mouse Models

Charvi Saboo

Bridging the gap: British Columbian Youth and Parent Perspectives on the Transition From Pediatric to Adult Mental Health Services

Georgia Crockford

### **ALUMNI CENTRE: JACK POOLE HALL**

Is Tori seeing red? Our Activity that De-simplifies Undergraduate Genetics Ashleigh Wood, Aoniya Colynn

Neuronal and Molecular Insights into neuronal cell adehesion molecule's Role in Modulating neuronal IGCAM Associated Locomotion Defects

Ryan Dhesa

Co-occurrence of Antimicrobial Resistance Genes in Carbapenem-Resistant Pathogens: A Genomic Analysis by Bioinformatics

Alfredo Austin, Shreya Sanadi

**Early Cultural Differences in Caregiver-Infant Interactions** *Jade McMillan* 

Investigating the role of ETV6 driver mutations in primary central nervous system lymphoma (PCNSL)

Felicia Zhou, Heather Jia, Johnson Zhong

Investigating the Neurons and Receptors involved in Divalent Salt Avoidance in Fruit Flies

Priya Thind

I Didn't Know I Did That: The Dissociation Between Implicit Adaptation and Conscious Error Detection

Jack Darley

**Decoding the Surge in Pollution in Jobos Bay** 

Syeda Tasnim, Aashna Desai, Simranjeet Kaur

Harnessing Manure: Incentives and Limitations for Anaerobic Digestion in South Dakota Saadia Morli, Kristy Song

To what extent does therapeutic muscle belly electrical stimulation (ES) lead to functional increases in muscle size as opposed to temporary muscle swelling? Sana Hoda, Minh Nguyen

#### **ALUMNI CENTRE: JACK POOLE HALL**

#### Traffic Forecasting with GNNs and Graph Transformers

Medhansh Choubey, Sanidhya Singh, Ke Ren

Use of forecasting models regarding future hospital or ED Visits in Chronic Airway Diseases: A Scoping Review

Evi Dorsch, Melody Pan, Kevan Wu, Kate Young

Targeting Microglial P2X7 Receptors to Reduce Oxidative Stress and Tau Phosphorylation in Alzheimer's Disease: A 3D Bio-Printed Brain Model Approach

Amber Wong, Marya Naanahi

Optogenetic Investigation of Nonassociative Learning in C. elegans Vania Amani

**Targeting Apathy in Parkinson's with Audio-Based Interventions** *Gloria Rahgozar* 

Examining the Impact of Female Political Participation on Gender-Specific Health Outcomes

Selin Yildiz

Analyzation on Genes Responsible for Red Pigmentation, Anthocyanins Synthesis and Accumulation across Species in the Rosaceae Family

Joanna Yang

Benchmarking Batch Correction Methods for scRNA-seq

Selina Fu, Michelle Huang

Comments Sent to the City of Calgary and What They Reveal About the Varied Interpretations of Zoning Changes

Zoe Duquette

Investigating the Role of APOE Genotypes on Microglial Morphology and Function in 2D and 3D Culture Models

Jessica Huang

#### **ALUMNI CENTRE: JACK POOLE HALL**

Developing and validating an ex vivo model to study cancer lipid metabolism Naruenan Wongreantong

**Exploring Mukbang Videos in Contemporary Chinese Society** *Nott Feng* 

The Impact of Osmolytes on COBRA Expression and Root Development in Arabidopsis thaliana

Hailey Dang, Finkle Gupong

**Strengthening Adult Protection in BC: Challenges and Solutions** *Annie Zhang, Dora Lei* 

**Exogenous vs. Endogenous Reductions in Timing Variability** *Julian Tolentino* 

Rooted in Mystery: Unearthing COBRA's Role in Arabidopsis thaliana Mutants Under Osmotic Stress

Maria Cheema, Maria Lauren, Joey Liu

Short-Acting **β2-Agonist (SABA)** Efficacy for Different Asthma Triggers & Phenotypes *Mathew Fu, Tushardeep Jolly* 

Investigating the Effect of Multiple Smoking Exposures on Lung Function and Structure in Young Persons Using Hyperpolarized 129Xenon MRI and CT

Roy Li, My Lan Nguyen, Viola Chen, Helen Lin

Assessing the Frequency of Immunological Evaluations in Pediatric Patients with Empyema: A Retrospective Cohort Study

Sameena Somani

Hawaiian Mantle Geochemistry: The Origin of Hawaiian Lava Hanna Papiez, Jaad Alashhab, Yucheng Liu

#### **ALUMNI CENTRE: JACK POOLE HALL**

Understanding Coyote-Pet Interactions: Temporal and Spatial Trends in an Urban Environment

Zixuan Zhou

To Help or Not to Help: Understanding the Relationship Between Perceived Effort and Loneliness Through an Acts of Kindness Intervention

Anushka Gulani

The Positive Illusory Bias in context of parent-child relationship quality and parent mental health

Emily Li

Neuroinflammation in Alzheimer's Disease: Sex-Specific and Age-Related Differences in 3xTg-AD Mice

Shivani Tejpal

Intrapatient genomic heterogeneity in castration-sensitive prostate cancer and its evolution to castration resistance in patients with de novo metastasis

Kamal Al Najem Azzam

**Automating Forest Stand Segmentation Using Deep Learning** *Mufaro Machaya, Tai Belke* 

Extent of heavy metal bioaccumulation in herring and Western Grebe in the Fraser River estuary

Julia Dargacz

The Impact of Therapist's Countertransference on Therapeutic Alliance & Outcome Zahra Fallah

The Role of Capitalism and Economic Inequality in Shaping Energy Democracy in National Hydrogen Policies

Rosaline Leung

### **ALUMNI CENTRE: JACK POOLE HALL**

Does Rain Make Algae's Day?: Analyzing Precipitation Impact on Phytoplankton off San Diego's Coast

Gabriella Mallios

Optimizing anti-tumour response of in vivo CAR-Macrophages by targeting "don't eat me" signals

Victoria Nicole Del Rosario, Clara Evangelyn Tjahjadi, Tess Blajberg, Leo Shum, Jai Choraria

Automated Multiclass Classification of Thyroid Disorders Using Scintigraphy Images and Machine Learning

Aisyah Rifa Fadhilah, Siddhant Patil, Max (Junzhe) Yan

Personality Perception in Podcast Videos: A Comparison of Human and LLM Assessments Elizabeth Master



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POSTER PRESENTATIONS



#### **HENN 301**

**Investigating the Distribution and Dynamics of a Hybrid Cell-Type in the Mouse Cortex** *Thomas van der Sloot* 

Quantification of starch gelatinization properties in glucose and sucrose solutions using a Particle Cohort Study apparatus and deep learning

Lily Santos O'Keefe, Yash Mali

Monitoring the at-risk collared pika through audio recordings

Charlotte Mittelstaedt

**Surviving Stalin's Terror: Do Resilience Predictors Hold from GULAG to Holodomor?** *Tomas Vanderkam* 

#### **HENN 302**

**An Examination of the Challenges and Obstacles Faced by Worker Co-Operatives** *Ayden Clarke* 

**Exploring Drug Resistance in Cancer with Nanopore DNA Sequencing Data** *Raymond Lu, Joanna Fu, Huatong Zhang, Chloe Zhou, Kevin Zhai* 

A Multivariate Analysis of Adverse Outcomes from Depression Symptoms in Adolescent Offenders

Vanessa Tran

Are you a visual 'shader' or a 'bolder'?: Different visual routines create everyday hallucinations in 'scaffolded attention'

Andrea Ying

#### **HENN 304**

**Understandings and Enactments of Non-Binary Transmasculinity** *Alexander Murphy* 

The Radical Potential of Queer Friendship in Disrupting Mononormativity

Rowen Francisco

Constraint-Based Modeling of Prostate Adenocarcinoma for Metabolic Profiling and Gleason Pattern Analysis

Abteen Arab

MRI to monitor lung function in people with CF starting elexacaftor-tezacaftor-ivacafto Amreen Aulakh

A Nucleolar Perspective on Cancer: Elevated NPM1 and FBL expression correlates with prostate cancer aggressiveness and progression

Sarina Saffarian

#### **IKB 157**

How Language Relates to Musical Rhythm: Perceptual Differences in Rhythmic Complexity Between Different Languages

Meera Thomas, Betty Bao, Katherine Hsu

Tropical Genetic Analysis of Insect Biodiversity Across Ecuador, Costa Rica, and Trinidad and Tobago

Rachel Leong

The missing "linker" in spermatid translocation

Kasra Mousadoust

Signs of Selfhood: A Semiotic and Phenomenological Approach to Embodied Identities in Late Bronze Age Cyprus

Talia Neelis

#### **IKB 158**

OMg! Effect of Magnesium Depletion on Chlorophyll Concentration in Thale Cress (Arabidopsis thaliana) Leaves

Ceres Zhou, Cindy Zhao

**Bowel preparation facilitates pathogen colonization in an intestine-on-a-chip model** *Brian Deng* 

Clinical Determinants That Impact Regulatory Natural Killer Cell Frequency in Healthy Donor Peripheral Blood.

Tracy Ngo

**Machine Learning Algorithms on Seismological Data** *Daniel Koo* 

#### **IKB 185**

Investigating the Temporal Expression of Key Marker Genes of the Glutamatergic Lineage in Cerebellar Organoids

Braxton Chan

Protein-Producing Hydrogel: An Efficient Approach to Protein Production Chloe Nguyen, Quinlan Ferrier, James Horvat

The Effect of Interleaving on the Memorability of Music Parker Keeley

Assessing Content Validation and Inter- and Intra-observer Reliability of the Paediatric Surgical AdVerse Events Severity System (PedSAVES)

Benjamin Nazif

**Effect of Low Temperatures on Battery Discharge Time** 

Rohan Garg, Zoey Qiu

### **IKB 191**

Priming Microglia to Combat Alzheimer's: Modulating the Innate Immune Response to Reduce Plaque Burden

Prabhsevak Johal

Understanding of Corporal Punishment in Educational Settings in China Yujia Huang

Unlocking the Power of Molecules on Surfaces: Advancing CO₂ Reduction with Fluorescent-Tagged Catalysts

Alena Plaksina

**Do Arctic bird guilds respond to unique climate and habitat factors?** *Elias Bowman* 

The UBC Map of Responsibility

Khushman Kaur Jawandha, Saranggan Thavakumaran

#### **ALUMNI CENTRE: JACK POOLE HALL**

The role of the canine gut microbiome in acute emotional states of shelter dogs Janice Leung

Canada's Chemical Valley: A Multidimensional Analysis of Pollution, Health, and Community Life

Ayesha Izzati, Maryam Buraimoh, Ziqian Zhang

Proposed Investigation of Diffusion-Limited Physiology in Hypoxic-Ischemic Brain Injury: The Blood-Brain Barrier and Cerebral Edema

Justin Lee

Al-Driven Workflow Planning for Robotic Arms in Self-Driving Labs Lucy Hao

The Associations of Life Course Adversity on Cognitive Function and Decline in the United States' Representative US Health and Retirement Study

Carson Wong

The Role of Gender, Sexuality, and Socioeconomic Position on Sports Injuries *Gurfathe Brar* 

Supporting Clinician Learning Needs for ECHO Autism BC - Scoping Review and Quality Improvement Project

Rachel Dong

**Identifying Effects of Genetic Influence on DNA Methylation in Pediatric Buccal Tissue** *Nathan Chang* 

"A lot of us feel these feelings": Exploring how youth use social media to exchange about mental health

Katelyn Teng

**Novel Role of Aging Regulator NHR-49 in Sensory Behaviour and Learning** *James Wu* 

### **ALUMNI CENTRE: JACK POOLE HALL**

Investigating the drivers for Double Negative Prostate Cancer Bardia Tarjoman, Davis Chen

**Height-induced postural threat and its influence on upper limb fine motor control** *Daniel Everard* 

The role of density and variability in perceived rhythmic complexity

Konrad van Heukelom

**Evaluating STORM-Net for Accurate Co-Registration in Infant fNIRS Studies** *Elisa Sierra* 

Exploring the relationship between climate anxiety and population control policies in China, India, and Canada

Prisha Jain, Helen Liu

Brainwaves to Buttons: Advancing Neural Interfaces for Digital Accessibility and Autonomy

Jack Plant, Danish Hakim, My Lan Nguyen, Thomas Becaria Valero, Jordan Chong, Guneev Dhillon, Sophia Yang, SIlvana Huang

Beer Breakdown: The Application of Ultrasonication for Beer Brewing Optimization.

Peerakij Tejapaibul, Jeffrey To, Reanna Gandhi, Amanda Morales, Guillermo Lopez Perez

Determining the extent of mucocystic changes in regions of the IPF lung with normal, ground glass opacities, honeycombing, and reticulation pathology.

Arla Shio

Validation of an iPSC Line with CRISPR-Introduced APP in ApoE Christchurch Genotype: Differentiation and Functional Characterization

Valentina Mendez Ortiz

**Exploring Programs and Services Available for Drug Users with Co-Occurring Mental Disorders in BC: An Environmental Scan** 

Richard Zhou, Meredith Boyd

### **ALUMNI CENTRE: JACK POOLE HALL**

Enhancing Pharmacy Education with Generative AI: Implementation of a Simulation Patient Role-Playing Program for Pharmacy Students

Neelam Bancy

Understanding Medicinal Cannabis Use in Pediatric Care: Prevalence, Practices, and Caregiver Perspectives in a Canadian Cohort"

Yasmine Tremblay

Investigating Fibropapillomatosis Prevalence, Disease Progression and Correlates in Nesting Green Turtles in Playa Norte, Costa Rica.

Darko Gavrilovic

Astrocyte-Derived Extracellular Vesicles as Biomarkers for Traumatic Brain Injury
Nok Faith Hui, Xinyan Lin

The Spatial and Temporal Experiences of Nostalgia Among Metro Vancouver Residents Kelly Yeung

The Influence of Discrepant Language Exposure Reports on Infant Neural Signal Integrity

Aisha Sabry

Identification of differences in PDAC tumour proteome between diabetic and nondiabetic patients

Marcelo Ferraz Reinaldo

NanoVisualize: AFM Localization Accuracy for DNA Data Storage Alexander Niazi

**Predictors of Higher Adoption Rates of Dogs at Adoption Events** *Silvija Grava* 

The Development of Fairness from Infancy to Toddlerhood: A Study of Equality and Sharing

Astin Tsai

#### **ALUMNI CENTRE: JACK POOLE HALL**

An Examination of the Intracellular Domain of NCAM-1 and Its Phenotypic Effects on RIG-3 Gene Mutations in Caenorhabditis elegans

Charlotte Lee

The Role of Fusobacterium nucleatum in Oral Cancer: Linking Infection to Epigenetic Changes in Gingival Fibroblasts

Julia (DaYe) Jung

Studying the Correlation of Vitamin D Deficiency in Pediatric Inflammatory Bowel Disease (IBD) Patients and the onset of Musculoskeletal Extra-Intestinal Manifestations.

Karman Gill

Investigating the spatiotemporal role of HMMR Δexon4 splice isoform in cell division Bonnie Huynh

**Development of a Graphical User Interface for SIR Model Simulations** *Aliyah Nur Dafika* 

**Testing The Efficacy of Popular Happiness Activities** *Julian Cai* 

Impact of an Adaptive Digital Platform on Self Management and Psychosocial Outcomes in Pediatric Solid Organ Transplant Recipients

Eugene Jung, Bella Kan, Jessica Kim, Lauren Tam

Coevolving with a tapeworm parasite: genotype-dependence and growth rates of the three-spined stickleback

Kaligua Rochon

Addressing Accessibility Barriers and Data Bias in Skin Disease Research: The International Dermatology Image Gallery

James Zhong

#### **ALUMNI CENTRE: JACK POOLE HALL**

Searching for Meaning in Digital Spaces: An Al Analysis Analysis of YouTube Videos and Comments

Winne Song

**ERV-Mediated Microglial Inflammation: Insights into CNS Pathophysiology** *Jatin Choudhary* 

**Redefining Recovery: Innovative Stent Approaches for Women Facing Heart Attacks** *Sophia Koronczay* 

**Coyote Curfew: Shifts in Coyote (Canis latrans) Activity Across Urban Environments** *Audra Cornick* 

Exploring aging-dependent habituation and dopaminergic neuron phenotypes in Caenorhabditis elegans orthologs of Parkinson's Disease-causing genes

Yu Ching Tsoi

What can we learn about low-carbon economies from BC's logging industry? Olyvia Guo, Parsa Nayyara, Arissa Tejani, Aland Chang

Cue the Lights: How Do Cues Alter Accumbal Dopaminergic Signaling in the Rat Gambling Task?

Elena Greenall, Nahanni Musiani

**Optimizing QT-NIRS to Assess the Quality of Infant fNIRS Data** *Annie Wang* 

**Exploring the Feasibility of Using Indirect Calorimetry on a Balancing Robotic System** *Dominique Choquette* 

Using Quantitative MRI Techniques to Study Structural Development of the Human Visual Pathway (A Systemic Review)

Hriday Sahni

### **ALUMNI CENTRE: JACK POOLE HALL**

**Social Acceptance of Emerging Biotechnologies in Animal Agriculture** *Kieran Mooney* 

Toward the Development of Replicon Systems for Negative-sense RNA Viruses of Public Health Concern

Pranjali Singh

**Statistical Word Segmentation in Monolingual 6-Month-Old Blind Infants** *Suri Zheng, Flora Zhang* 

ASCL1 Regulates DDC, a Biomarker to Identify Neuroendocrine Prostate Cancer Willie Wu



### Wave 5

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#### **HENN 301**

Feeling Understood and Psychological Well-Being: Examining Key Associations

Mariana Souza

Interdisciplinary Approach to Capsular Contracture Etiopathogenesis: Novel Application of Systematic Review with Mathematical Modelling

Michelle Ho

The Phylogeography of Golden- and White-Crowned Sparrows Sam Wong

Something Tactile and Fragile: How to Analyze Song References in Fiction Without Prior Musical Experience or Knowledge

CJ McGillivray

Evaluation of a Novel Extracorporeal Radiofrequency Treatment in the Porcine Model of Emphysema

Angela Yang

#### **HENN 302**

The Fourth Generation of Refrigerants

Malina Friedman

Rapid petroleum oil spill sampling and classification using water-repellent filter paper and instrumental chemical analysis

Lola Rabinovitch

Anti-predator behaviours of Chacma Baboons under changing predation risk in Gorongosa National Park

Sophia Van Cuylenborg

**Exploring Molecular Mechanisms of Increased Thrombotic Risk in Type 2 Diabetes** *Paniz Ghavimi* 

**Using AI to Help Treat Mood Disorders** 

Yash Mali, Antarip Kashyap

#### **HENN 304**

Contraceptive use in British Columbia, Canada between 2001 and 2021: a descriptive analysis *Alice Mei* 

Atmospheric Selenium - Laboratory Studies and Making the First Real-Time Measurements Ken Hagiya

Analysis of trail camera monitoring of nest visitation and feeding of chicks by adult Turkey Vultures on Vancouver Island

Ginger Boehme-Vertefeuille, Gavin Currie

Effects of Hydrostatic Pressure on Dragonfly Nymphs: Tracheal Collapse and Gas Exchange Efficiency

Pani Ayoubizadeh

**Cultural Variations in the Manifestation of Grief** Lavivnia Menon

#### **IKB 157**

A DNA origami-mediated immunotherapy for targeting prostate cancer with AND logic Melanie Chan, Matthew Dichupa, Sruthi Magesh, George Wang

The Window of Opportunity: The Impact of Maternal Microbial Dysbiosis on Offspring Susceptibility to Allergic Disease

Mya Bal

Pathology Search Engine - Enabling Cancer Image Searches Through Web App Development Marvin Wu

Effects of Socially Assistive Robot Pet Therapy vs Animal Pet Therapy on Healthcare Staff Mood

Tanisha Kadia

Investigating the Impact of the IBD Microbiome on Microglial Morphology and Corticosterone Levels in Early Postnatal Development

Natalie Ma

#### **IKB 158**

Analysis of the relationship between in-vivo passive tissue stiffness pre and post a stress-relaxation response.

Maxwell Redman

A "Cull-Off Competition": A Participatory Model for Mitigating Crown-of-Thorns Starfish Outbreaks on the Great Barrier Reef

Anika Goyal, Jimmy Choy

When to Disturb? On Syncopation and Perceived Rhythmic Complexity *CC Liang* 

TagNBag: Spatial DNA Barcoding Assisted by Microfluidics for Quantification of Intratumor Heterogeneity

Ruth Yu

**Building a Genome-Scale Reconstruction of a Microbial Biocatalyst**Parsa Nayyara

#### **IKB 185**

The Role of Metal Identity in Dictating Proton Coupled Electron Transfers at Porphyrin Macrocycles

Ana Luisa Ferreira Granja

**CAN-TRI-NLP: A CANcer TRiage system to expedite care with Natural Language Processing** *Jonathan Chan* 

Understanding New Frontiers of Community-Engagement: Navigating Vancouver Chinatown's Physical and Digital Presence

Grace Chen

**Investigating the role of ZDHHC21 in neuronal physiology** *Lynn Choi* 

Exploring Racial Disparities in Homeschooling: A Comparative Analysis of Social Factors that Motivate Choices and Experiences in Alternative Education

Julia Moniz-Lecce

#### **IKB 191**

**Exploring the Training Experiences of Acquired Brain Injury Peer Support Workers** *Kylie Yuen* 

Investigating the effects of embryonic exposure to road salt on long term thermal tolerance in juvenile Coho salmon

**Hannah Stairs** 

Safety and effectiveness of prepectoral and subpectoral alloplastic breast reconstruction: A longitudinal prospective study

Gina Zhang

**Exploring Canola Protein Functions in Plant-Based Foods** *Xenya Vasiu* 

Understanding Processes Impacting Genetic Diversity in Lineages of Rainbow and Steelhead Trout

Marie Sandler

#### **ALUMNI CENTRE: JACK POOLE HALL**

**Revolutionizing Student Learning Through Innovative Educational Activities** *Sunny Qin, Mina Rim* 

Exploring Factors Involved in the Development, Feasibility, and Usability of an Adaptive Digital Platform for Pediatric Solid Organ Transplant (SOT) Recipients.

Celine Choi, Yuyu Liu, Sophie Perey

The evaluation of facilitated peer discussions in promoting Better REsident Wellness (BREW): a semi-structured interview study

Miku Wake

Understanding the role of urobiome-derived lysophosphatidic acid in renal tubular epithelial cell and barrier functioning

Pailin Cui

Secondary dengue virus infection is associated with endothelial activation and hypotension in an outpatient cohort from the Philippines

Jiayi Yang

Reach Adaptation to Actively vs. Passively Generated Task Error *Thomas Iverson* 

**Siglec driven signaling in modulating anti-cancer activity of CD8+ T-cells** *Anjali Parthasarathy* 

**Refining Kinesthetic Illusions** 

Jaeyong Lee

Investigating the impact of Sodium Dodecyl Sulfate in enhancing the Bligh and Dyer lipid extraction method for algae-biofuel applications

Jackie McDougall, Christina Maag, I-Heng Chan

#### **ALUMNI CENTRE: JACK POOLE HALL**

The impact of human IBD microbiota on gene expression in the brain Leo Chung

Can a Novel AI-Based Predictive 3D Imaging Software for Idiopathic Scoliosis Obviate the Need for Routine Xrays?

Carolina Ricardo, Joel Maliakkal

Effects of Agonist and Antagonist Muscle Fatigue on Kinesthesia in Reaching and Alignment Tasks

Avery Moskal

**Are Methane Emissions Increasing in the Arctic? A Time Series Analysis** *Himari Honda* 

Complement Protein Dysregulation in Depression: Insights from Human Brain Tissue Analysis

Anika Lee

Loss-of-Interruption (LOI) Variants and Their Role in RAN Protein Production in Huntington's Disease: Insights from Brain Tissue Analysis

Ashleen Phandar

**Investigating Eye-to-Limb Adaptation Transfer in Double-Step Reaching Tasks** *Lindsay Gauthier* 

The disruptive effects of fatigue on position sense: exploring the role of sense of effort through loaded movements

Quaila Trang

In Vivo Functional Screening of Dopamine-Dependent behaviour in Parkinson's Disease Risk Genes using Caenorhabditis elegans

Jessica Song

### **ALUMNI CENTRE: JACK POOLE HALL**

Quantifying Lower Limb Proprioceptive Position and Movement Detection Thresholds in Standing Balance

Xiya (Christina) Cheng

Feasibility and Acceptability of Endometrial Cancer Screening and Risk-Reduction Interventions in High-Risk Populations

Nimmy Sebastian

Developing a CRISPR interference system to study gene regulation in Cryptococcus neoformans

Tianne Kussat

The Stress Test: Assessing Gut Microbial Replication via PCR Assay Asmita Jain

The Impact of Infant-Directed Speech on Bilingual Infants' Word Learning Ziyuan Yang, Oniza Syed

Intestinal microbiome-modulation of microglia in the developing brain *Shreya Gandhi* 

**Specific Antagonist for Human Chemokine Receptor CXCR4**Danielle Kim

Immunohistochemical Assessment of Methylation in Pediatric Low-Grade Glioma

Nicole Tam

Exploring the interactive effects of temperature and copper toxicity on the physiology of bull kelp (Nereocystis luetkeana) across life stages

Camilla Huang, Hannah Hoglund, Kay Li

Enhancing Cultural Safety in VCH Hospitals: A Systems Approach to Bridging Gaps in Indigenous Healthcare

Khushi Goyal, Katerina Popke, Puneet Dhindsa

#### **ALUMNI CENTRE: JACK POOLE HALL**

**How Willingness to Communicate in a Foreign Language Influences Anxiety** *Anthony Polisi* 

Music Priming Effect on Infant's Perception of Japanese and English Phonetic Contrasts Dlorah Agama, Vaidehi Asawa, Nanaki Dhaliwal

Student Pharmacists' Attitudes towards Prescribing Hormonal Contraception Carmen Leung, Kevin Ahn

Scope and Outcome of Early Repolarization Syndrome in Unexplained Cardiac Arrest: Insights from the National HiRO Registry

Bhupesh Jassal

Advanced Approach to Strawberry Preservation Through Spray-Assembled Metal-Phenolic Networks

Tzu-Cheng Chiu

Impacts of Alcohol use on Reaction Time and its Interaction with Interventions with tACS *Armaan Matharu* 

Characterizing the NHR-49 Stress Pathway in C. elegans during hypoxia Judy Kim

Exploring the Effects of Transcutaneous Spinal Cord Stimulation on Remyelination After Spinal Cord Injury

Daniyal Aleem

Patient perception of pharmacist prescribing for Minor Ailments and Contraception (MACS) in the province of British Columbia

Selena Xu

Cleaning Our Water: Making A More Effective Arsenic (As) Binder

Emmanuella Esebor

### **ALUMNI CENTRE: JACK POOLE HALL**

Exploring wheat stripe rust resistance through genetic mapping - can wheat ancestors play a role?

Jujhar Gill

**Antioxidants in Various Rice Waters** 

Felix Chan, Chanel Guan

Investigating the Effects of Transcranial Alternating Current Stimulation (tACS) on Electrophysiological Signals During a Task

Sage Hunka

The Prospective Relationships Between Teamwork and Social Identity in Team Sport Athletes

Kyra McKinnon

Single-cell Sequencing and Metagenomic Libraries Reveal Abundance and Diversity of Microbial Rhodopsins in the Ocean

Mahan Rafieenaini

Trying to be Cool: An Analysis of the Distribution of Public Cooling Centers in the City of Vancouver

Xiutong Tony Jiang

Reading words versus seeing font or handwriting style: a study of hemifield processing *Helena Ghorbani* 

Albumin-Coated Nanoparticles: Tuning the Particle Surface for Targeted Drug Delivery to Bacterial Biofilms

Annie Ruan

Exocrine pancreatic inflammation and its implications for insulitis initiation in type 1 diabetes

Tiffany ZiYing Chen



# Thank you!

Thank you to everybody involved for your participation and continued support in making MURC 2025 possible. If you are interested in getting involved with MURC 2026, please visit students.ubc.ca/murc.

We can't wait to see you next year!

\*The final version of the program guide will be released on our website by the end of April. Stay tuned!