



FLEX ACTIVITY DAY

January 23, 2023

UBC Life Sciences Centre

#UBCFLEX2023



THE UNIVERSITY
OF BRITISH COLUMBIA
UBC Faculty of Medicine

LAND ACKNOWLEDGEMENT

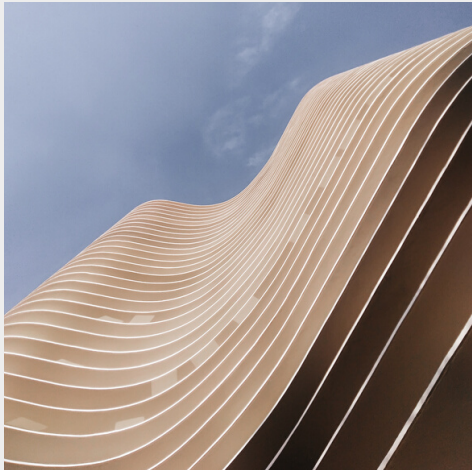


We acknowledge the land that the Vancouver Fraser Medical Program resides on is of the ancestral, traditional, and unceded territory of the Musqueam (xʷməθkʷə́yəm) nation.

INTRODUCTION



On behalf of the VFMP FLEX Representatives and Faculty of Medicine staff advisors, a warm welcome to the annual FLEX Activity Day. We are delighted you could join us. This event represents a platform for upper year medical students to share with you a piece of their research passions and interests. Their work highlights some of the possibilities that can be achieved with your own FLEX projects. FLEX Activity Day is also an opportunity to hear from supervisors who are searching for FLEX students. Therefore we highly encourage you to listen intently, ask inquisitively, and recognize the hard work of your peers.



FLEX Activity Day is a wonderful day of learning and sharing. Take a moment to reflect on your own interests and explore the vast array of FLEX opportunities that exist. We hope you take the time to explore the presentations, as well as network with senior medical students and potential activity supervisors who will be on-site to recruit for their projects - you might just find the perfect FLEX Activity for yourself!



We gratefully acknowledge the financial support from the offices of the Faculty of Medicine Vice Dean of Education (Dr. Roger Wong) and Vice Dean of Research (Dr. Robert McMaster)



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SCHEDULE OF EVENTS

All events will be held in LSC-1

1:00PM-2:00PM	Keynote speaker: Dr. Katarina Wind
2:00PM-2:55PM	Supervisor Presentations
2:55PM-3:05PM	Break
3:05PM-4:45PM	Student Presentations
4:45PM-5:00PM	Trivia and Networking

KEYNOTE SPEAKER

DR. KATARINA WIND



This year, we are delighted to be joined by Dr. Katarina Wind as our keynote speaker. Dr. Katarina Wind (C2020) is a Health at Every Size / Weight-Inclusive Care family physician and UBC MDUP Clinical Instructor in Vancouver. She developed Canada's first curriculum in Weight-Inclusive Care for medical students; teaching them how to practice with an evidence-based, social justice-informed approach to body weight. She serves on the advisory board for the American Medical Students for Size Inclusivity and is currently supporting UBC FLEX students in creating their own club and podcast. Her clinical practice includes full-service primary care, hospitalist, and rural medicine.

SUPERVISOR PRESENTATIONS

01

DR. MARIA VICTORIA
MONSALVE

UBC Faculty of Medicine - Pathology and
Laboratory Medicine

HAND-ON ARCHAEOLOGICAL AND HISTORICAL MEDICAL COLLECTIONS

One of my interests is the application of interdisciplinary knowledge to pathologies in ancient human remains.

I have access to collections of skeletons and bones presenting varied pathologies. Photographs from these collections are available for students studying disease through human remains. UBC's FLEX (Flexible Enhancing Learning) curriculum provides an opportunity to contribute my knowledge and experience to educational activities in paleomedicine for undergraduate medical students. MD 2nd and 4th year MD undergraduate students have been engaged since 2018 and is now opened for the academic year 2023-2024.

02

DR. JULIET OSHIRO
Rural eMentoring BC

RURAL YOUTH OUTREACH: EMENTORING AMBASSADORS

Rural eMentoring BC (ReMBC) is an online mentoring program where post-secondary students mentor rural youth. The program specifically aims to support rural, remote, and Indigenous youth transition successfully into post-secondary health sciences programs.

This FLEX project aims to promote ReMBC's offerings at rural high schools. For this project, the student would travel with the Healthcare Travelling Roadshow, a program that travels to rural high schools in BC giving hands-on presentations about healthcare careers. The FLEX student would travel with the Roadshow to advertise ReMBC to students and educators at these schools.

This is a great opportunity for students who are interested in learning more about rural medicine. This is truly an immersive experience that will give you an on-the-ground perspective on rural medicine, including touring hospitals and health centres, meeting the locals, and seeing the sites. Rural communities are underserved when it comes to healthcare and educational opportunities, and this FLEX project tries to address these inequities. You will also develop skills like public speaking, perfecting your elevator pitch and talking to teens.



SUPERVISOR PRESENTATIONS

03

DR. NITASHA PURI
Fraser Health/Faculty of Medicine

*SUBSTANCE USE DISORDER IN
RACIALIZED POPULATIONS*

05

DR. SIAN TSUEI
Harvard University and University of British
Columbia

*COMPARATIVE POLICY ANALYSIS
FOR ARTIFICIAL INTELLIGENCE*

To become acquainted with the health system structure, the student will first review a textbook on the control knob health system framework, supplemented by my teaching. The crux of the project will be to conduct comparative analysis of artificial intelligence across multiple high-income countries to understand the current policy landscape on artificial intelligence. The project should generate a peer-reviewed publication.

Please note that the intensity of the elective is decreased relative to the original posting on FLEX advertisement board.

04

DR. REBECCA ZIVANOVIC
UBC Department of Psychiatry

*REPRODUCTIVE HEALTH CARE
AND CONTRACEPTION FOR
WOMEN WITH SCHIZOPHRENIA
SPECTRUM DISORDERS*

This is a survey-based study of adults who are able to get pregnant (female sex assigned at birth, have not had a tubal ligation/hysterectomy), who have a diagnosis of a schizophrenia-spectrum disorder and are receiving care through a community mental health team (MHT) (including case management and psychiatric care) in British Columbia.

Objectives:

- 1) To assess the feasibility of an electronic survey-based study on reproductive health and related topics in a community sample of women with schizophrenia-spectrum disorders.
- 2) To understand the gaps in reproductive health care, including contraception, for women with schizophrenia-spectrum disorders from both the patient and clinician perspectives.
- 3) To identify current barriers to accessing reliable contraception (specifically LARC) and potential interventions to address these barriers.

This project is well suited to students with an interest in obstetrics and gynaecology, psychiatry, primary care and public health.

SUPERVISOR PRESENTATIONS

06

KISHORE HARI

The Rural Health Services Research Network of BC

Project 1:

*POPULATION HEALTH DATA
MAPPING/RURAL HEALTH CARE
SYSTEM MAPPING*

Project 2:

RURAL PHYSICIAN RETENTION

07

ALEXANDRA BLAND

Centre for Rural Health Research

*CO-RIG II CCEDARR - ENHANCING
THE RESILIENCE OF RURAL
COMMUNITIES*

The CCEDARR Canada study, 'Enhancing Rural Community Resiliency to Climate Change and Ecosystem Disruption: Building on the lessons learned from the COVID-19 Pandemic to Strengthen Rural Community Health and Health Services' is a Co-RIG Phase II grant-funded, pan-Canadian qualitative study currently underway at the Centre for Rural Health Research. We are seeking a FLEX student to contribute to the knowledge translation portion of the project through literature reviews and writing results for publication. The specific direction of the research can be jointly agreed upon by the student and research team.

08

STEPHEN GILLIS

Faculty of Medicine - Ed Tech

*MEDAMORPHOSIS AUDIO PODCAST
& LEARNING RESOURCES*

Join a student media team that creates the MEDamorphosis Audio Podcast

<https://medamorphosis-podcast.simplecast.com>

Interview, Host, Editors -> Students do all three and more. Meet practitioners and explore their career journeys to their chosen specialization

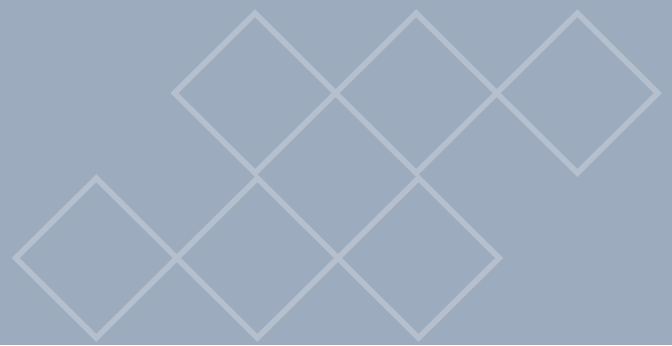
- Develop podcasting, interviewing, transcribing and audio editing skills.

- Help to create an important resources for future UGME students.

This by-students, for-students podcast is a student led, audio interview format "radio show".

Students research, reach out to, and interview established medical specialists about their lives, career choices and ultimately what it's like to walk in their shoes. Students then apply postproduction techniques to finish the podcast, uploading them onto our public soundcloud account.

<https://medamorphosis-podcast.simplecast.com>



SUPERVISOR PRESENTATIONS

09

DR. ASTRID
CHRISTOFFERSEN-DEB

Dept OB/GYN, Medical Director Population and
Global Health, BC Women's Hospital.

SUPPORTING THE STILLBIRTH JOURNEY

Project 1:

This is a collaborative QI project using equity-centered design process to improve the hospital experience of people and partners who experience stillbirth at BCW Hospital. We are currently recruiting 40 people who have the lived experience of stillbirth to participate in two workshops in February. Results will inform the development and implementation of in-hospital supports for people at BCWH and will be disseminated in April-May 2023.

APPLYING A HUMAN-CENTRED DESIGN APPROACH IN THE DEVELOPMENT OF A MATURE WOMEN'S HEALTH PROGRAM AT BC WOMEN'S HEALTH CENTRE

Project 2:

This study engaged providers and women age 45-70 in the development of a Mature Women's Health Program at BC Women's Hospital using Human-Centered Design (HCD) principles in 2019. HCD is an innovative, feasible and effective participatory approach that involves working directly with users to develop and test solutions

This project has three objectives:

1. Determine women's preferences in the delivery of health care services for women age 45-70.
2. Engage women in designing a mature women's health care program at BC Women's Hospital and Women's Center.
3. Engage providers in designing a mature women's health care program at BC Women's Hospital and Women's Center.

Results will inform the implementation of a new care program at the hospital. This project was completed in partnership with Emily Carr University of Art + Design and a patient partner.

Status:

- REB in place at BCW
- Data collected and preliminarily analyzed from a survey of 1000 women in Vancouver, major themes identified from the 4 workshops held with patients and providers. Lots of great material analyzed and ready for a manuscript.

Your Role:

- Work with PI and co-PIs at Emily Carr University of Art + Design to draft manuscript to JOGC on this topic.
- Analytical support is available through Population and Global Health Program at BCWH

10

DR. DENISE JAWORSKY
UBC

BUILDING MORE BRIDGES: INDIGENOUS LEADERSHIP IN A STUDY ASSESSING THE IMPACT OF DISTANCE TO CARE ON MARKERS OF QUALITY HIV CARE IN SASKATCHEWAN

STUDENT PRESENTATIONS

01

DANIEL KWON

Hematology, Oncology, Radiology

KINETIC ANALYSIS OF A DUAL [18F] FLUOROGLUTAMINE AND [18F] FLUORODEOXYGLUCOSE PET IMAGING IN A BREAST CANCER PATIENT

[18F]Fluoroglutamine ([18F]FGln) is currently undergoing clinical trials at the University of Pennsylvania (NCT03863457) for diagnosis and identification of patients who may benefit from glutaminase-targeted therapies. To support novel radiopharmaceuticals for positron emission tomography (PET) imaging, new clinical imaging workflows incorporating multiple radiotracers are needed to facilitate clinical trials, and minimize patient time in clinic and under the scanner, while reducing errors in clinician interpretation of PET images due to interfering signals. Leveraging the PennPET Explorer, a first-in-class whole-body PET scanner with heightened sensitivity, we perform a dual radiotracer dynamic PET imaging study with [18F]FGln and [18F]fluorodeoxyglucose, separated by 30 minutes, in a patient with ER+/PR+ breast cancer. We manually deconvolute these images using both mathematical first principles and MFEvolve, an experimental multi-tracer software. We demonstrate that 1) the produced PET images are diagnostic quality, 2) we are able to separate and recapitulate the expected kinetics for each PET tracer, and 3) subsampling these images, which simulates lower doses, recapitulates the expected kinetics and produces diagnostic quality PET images. This workflow demonstrates the feasibility of dual radiotracer studies in both an experimental and clinical setting and will facilitate future clinical trials at the University of Pennsylvania.

02

SAIF DABABNEH

Cardiology, Cardiac Surgery, Internal Medicine, Medical Biochemistry, Genetics, or Toxicology, Pediatrics

INVESTIGATING INHERITED ARRHYTHMIA USING HUMAN STEM CELL-DERIVED HEART CELLS

Approximately 35,000 sudden cardiac arrests (SCAs) occur in Canada annually, with an out-of-hospital survival rate of less than 10%. SCA is commonly caused by arrhythmia, some of which are caused by heritable, pathogenic genetic variants of proteins required for normal heart function. Inherited arrhythmias are particularly important to diagnose for early intervention and genetic screening. To better understand disease mechanisms and develop a personalized pharmacogenomics platform, we utilized patient derived stem cells, which were genome edited using CRISPR-Cas9 to harbor a variant of interest in the RyR2 gene, to generate beating human heart cells for electrophysiological studies.

STUDENT PRESENTATIONS

03

SYDNEY SPARANESE

Family Medicine

*PHYSICIAN QUALITY IMPROVEMENT IN ISLAND HEALTH: IMPROVING
OUTREACH-BASED PRIMARY CARE IN NANAIMO, BC*

The Nanaimo-based Primary Care Outreach (PCO) team provides low-barrier primary care services to individuals who are experiencing homelessness or live in supportive social housing sites without access to primary care. However, the PCO team has identified that given the increased demand for physician access, they have at times struggled to meet patient needs and effectively triage concerns. Further, the opportunistic nature of patient engagement has at times made care coordination and follow-up connections challenging.

I completed a literature review to delineate the current models of non-traditional primary care delivery Canada and use this as a framework for improvement.

04

BRANDON NG

Cardiology, Cardiac Surgery

*SAFETY AND FEASIBILITY OF SINGLE-STAGE ACCELERATED
DOBUTAMINE STRESS ECHOCARDIOGRAPHY*

Dobutamine stress echocardiography has been established as a reliable and safe test to evaluate a variety of cardiovascular diseases. This is particularly useful in patients who are unable to exercise or have an abnormal baseline ECG, in addition to avoiding radiation exposure. For these reasons, its utility and applicability are increasing in clinical practice. The standard dobutamine stress protocol is time consuming and limits high volume centers from meeting demands. For that reason, a single-staged high-dose protocol has been developed as an alternative. The primary aim of this study is to evaluate the safety and feasibility of the accelerated protocol.

STUDENT PRESENTATIONS

05

CATHERINE BINDA

Surgery

*DEFINING A FRAMEWORK FOR SUSTAINABLE GLOBAL SURGICAL
COLLABORATIONS USING MODIFIED DELPHI METHODS*

My flex project involved creating the first framework for building sustainable Global Surgery Partnerships (GSPs) using a modified Delphi methods that engaged voices from all World Health Organization regions. My team developed a tool to help the global surgery community find solutions to the gap in access to quality surgical care in low-resource settings. I have also been involved in the creating of videos for an essential surgical skills curriculum and participated in systematic reviews and metaanalysis. Feel free to reach out about doing research at sites other than VFMP, pediatrics, global health, or surgery – catbinda@student.ubc.ca

06

SARAH LIM

Geriatrics / Palliative Medicine

LEGACY PROJECT

The Legacy Project is a collaboration between the UBC Division of Palliative Care (PHawley@bccancer.bc.ca) and palliative patients. You are paired 1:1 with a palliative patient in order to explore their journey with life and death, and bolster your own communication skills. This is a part time FLEX project (~40 hrs). The deliverable is creating a 'generativity document' - a well researched form of dignity therapy. This is a book, recording, art piece etc - about their life/life's work that is gifted to their loved ones. It is a memorable experience and sure to aid all students no matter what field you are interested in.

STUDENT PRESENTATIONS

07

ELLIE SIDEN

Public Health

THE LINGUISTIC INDICATORS OF FRAMING TOOL (LIFT): DEVELOPING A TOOL TO LIFT NEGATIVE FRAMING OUT OF PUBLISHED HEALTH RESEARCH INVOLVING FIRST NATIONS, INUIT AND MÉTIS PEOPLES

A number of published guidelines and studies exist for conducting Indigenous health research. However, no guidelines to-date focus on the avoidance of linguistic bias in the reported research. Healthcare providers, who rely on reading and digesting large volumes of medical literature to keep their knowledge up-to-date, are at high risk of picking up these stereotypes and unintentionally applying them to their interactions with FNIM peoples, creating culturally unsafe environments. You will be engaged in a scoping review to inform the develop of a tool to help health providers identify and avoid linguistic bias with regards FNIM peoples. Contact jessica.chan@bccancer.bc.ca

08

NORBERT BANYI

Otolaryngology / Head & Neck Surgery

INCIDENCE AND RISK FACTORS OF HYPOTHYROIDISM POST-LARYNGECTOMY: A SYSTEMATIC REVIEW

Summary: Hypothyroidism is a common complication of laryngectomy and results from thyroid tissue resection, division of thyroid vasculature to allow ablation or to provide recipient vessels for reconstruction, or (neo)adjuvant therapy. 44 of the 580 records identified and included in the systematic review reported the incidence of post-laryngectomy hypothyroidism and had a total of 5942 laryngectomy patients. The pooled incidence of post-laryngectomy hypothyroidism was 52% (95% CI 44-60%). Subgroup analysis showed rates of hypothyroidism following laryngectomy with and without radiotherapy (pre- or post-operative) to be 57% (95% CI 50-64%) and 39% (95% CI 28-50%), respectively ($p = 0.01$). Subgroup analysis also showed statistically different rates of hypothyroidism after laryngectomy with thyroid sparing surgical treatment, hemithyroidectomy, and total thyroidectomy, which were 27% (95% CI 19-37%), 60% (95% CI 53-66%), and 95% (95% CI 87-100%), respectively ($p < 0.001$).

Supervisor contact: eitan.prisman@ubc.ca.

STUDENT PRESENTATIONS

09

MICHAEL GONG; GEORGE CHEN

UBC MDUP Formulary App

UBC MDUP FORMULARY APP

We created an app to help enrich learning pharmacology. Currently available on Android and IOS with a drug formulary based on the old formulary list and 300+ questions for Year 1. The majority of questions are vignette based and are related to content taught in lecture or in the CBL case. Currently, there are explanations for most of MEDD411/412. We also have questions and explanations for MEDD421. Our goal is to finish making questions and explanations for all of Year 2, create more learning tools like summary sheets/modules on important concepts in pharmacology, and conduct quality improvement.

10

AMIR POURGHADIRI

Radiology

GENDER DISPARITIES IN RADIATION ONCOLOGY SOCIETIES OF NORTH AMERICA

Our study sheds light on existing and continuing gender disparities within Radiation Oncology. Across four North American Radiation Oncology Societies, we observed more men holding memberships, leadership positions, and academic ranks. Disparities extended to research output variables as male members largely outperformed female members on most research variables. However, after accounting for career length, men and women had similar research performances. Within the same academic and committee rank, research performance was also comparable across genders. Our findings raise awareness about the present inequities and encourage radiation oncologists to actively work towards increasing female representation in academic and leadership positions.

STUDENT PRESENTATIONS

11

SHAYDA SWANN

Medical Microbiology, Infectious Disease

HEALTHY AGING IN WOMEN LIVING WITH HIV - A COMMUNITY-COLLABORATIVE COHORT STUDY

With antiretroviral therapies, women living with HIV now live longer and healthier lives. Consequently, research has shifted to enabling healthy experiences of aging. The British Columbia CARMA-CHIWOS Collaboration is an interdisciplinary team of clinicians, scientists, and women living with HIV who study healthy aging from cell-to-society. Potential projects topics include: hormones, reproductive/sexual health, and menopause; racial, gender, or HIV-related discrimination, comorbid disease and viral co-infections, etc. FLEX studies will have opportunities to be mentored by diverse team, including women living with HIV who are trained in research. Please email Shayda Swann (sswann19@student.ubc.ca) and Dr. Melanie Murray (melanie.murray@cw.bc.ca) for more info.

12

KEVIN ZHANG; MELISSA KONG

Internal Medicine, Public Health

ENRICHING MEDICAL EDUCATION: TEACHING ANTIBIOTICS THROUGH STORYTELLING (ANTIBIOTICS: THE DRAMA)

Is there something outside of medicine that you've always wanted to try but never had the opportunity to? For us, it was to produce and star in a film! As some of you already know, "Antibiotics: The Drama" is a live-action TV-drama-like series that aims to teach medical students about antibiotics in an innovative and engaging way. This project is 100% home-grown, involving almost 40 UBC medical students and residents with the support of Dr. Mary Kestler and Dr. Glenn Regehr. We hope that our project inspires you to use FLEX to create something that you are truly proud of!

Feel free to reach out to us at: kzhang65@student.ubc.ca | melckong@student.ubc.ca

STUDENT PRESENTATIONS

13

HAO RAN LI

Medical Education

MULTIMEDIA USE IN ANATOMY EDUCATION

I worked with Dr. Doroudi on the dissection videos (upper airway, kidney, mediastinum and instrument guide) that are incorporated into the curriculum for the anatomy lab preparation. I took on this project because it helped me improve my anatomy learning experience and exam results. Moreover, I hope to contribute to this meaningful and impactful project and improve the learning experience of the upcoming medical students. This project is straightforward and does not require previous video editing skills. If you have any questions, please feel free to reach me at haoranli@student.ubc.ca or Dr. Doroudi at majid.doroudi@ubc.ca.

14

CRYSTAL GONG; JENNA BURKE

Health Policy, Advocacy, Social Cultural & Environment

PLANETARY HEALTH INTEGRATION PROJECT

We're looking to recruit students passionate about planetary health and medical education. The project focuses on updating year 1 and year 2 curriculum with planetary health learning objectives. Interested students can feel free to reach out to Dr. Adrian Yee (adrian.yee@ubc.ca) or Crystal Gong (cgong06@student.ubc.ca)

STUDENT PRESENTATIONS

15

SOPHIE GREGOIRE-MITHA

Public Health

TEACHING CHILDREN AND TEENAGERS HOW TO NAVIGATE HEALTH CLAIMS

This project is aimed at helping children understand how to navigate health claims they see online in traditional or social media. We created a series of workshops presented in an elementary school on a variety of topics meant to engage them in their critical media analysis skills, and are looking to continue and expand on this project in the coming years! Feel free to contact soph1999@student.ubc.ca, or my supervisor Dr. Evelyn Cornelissen at evelyn.cornelissen@ubc.ca, for more details.

16

ARMAN BRAR

Internal Medicine, Medical Microbiology, Infectious Disease

ADVERSE DRUG REACTIONS TO ANTIRETROVIRALS IN A CONTEMPORARY COHORT OF WOMEN LIVING WITH HIV

Adverse drug reactions (ADRs) associated with antiretroviral (ARV) therapy confer considerable morbidity and healthcare expense. Despite this, little is known about how ADRs are experienced by groups historically underrepresented in clinical trials, such as women, particularly on contemporary ARV regimens. Herein, we analyze prevalence and influencing factors of ADRs experienced by women taking ARVs.



STUDENT PRESENTATIONS

17

SILA ROGAN

Friedman Lab

Case reports on children with neurodevelopmental disorders and novel genetic variants

THANK YOU FOR ATTENDING
FLEX ACTIVITY DAY 2023

