

November 26<sup>th</sup> 2021

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LIM

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# WELCOME

Welcome to the twelfth annual Leaders in Medicine Research Symposium, an event dedicated to student research and collaboration!

This year we are excited to host a workshop on imposter syndrome by Dr. Paula Pearce and showcase a broad range of impressive student research,

Thank you for joining us and for making this year's symposium a success!

Sincerely,

Bria Mele  
Carlie Redekopp  
Robert Moore  
Sangmin (Sarah) Lee  
Zeanna Jadavji

[ LIM Symposium Planning Committee ]

*A message from our student co-chairs:*



Wisoo is a joint MD/PhD student and currently in his second year of medical school. Wisoo earned a BHSc degree with First Class Honours from University of Calgary in 2015. He completed his PhD under the supervision of Dr. Jeff Biernaskie, who is a Professor in Stem Cell Biology and Regenerative Medicine at the University of Calgary. During his PhD, Wisoo studied the role of aging stem cells in various age associated skin deficiencies such as hair loss, hyperpigmentation, and impaired wound healing. Wisoo strives to become a clinician-scientist in the field of Dermatology.



Brandon is a Joint MD/PhD student currently in his first year of medical school. He defended his PhD in Neuroscience under the supervision of Dr. Adam Kirton at the Alberta Children's Hospital, where he utilized various neuroimaging techniques to understand how the brain develops around early neurological injuries, such as those who survive strokes at or near birth. Brandon is passionate about understanding how the brain responds to early brain injuries and aspires to pursue this understanding deeper as a clinician-scientist.

***"We are privileged to have worked as co-chairs of the Leaders in Medicine Program over the past year. We worked alongside our program Director Dr. Zahra Goodarzi, Admin Diana Law and student led committees to redirect our program to better suit the needs of a new generation of students. We are proud to lead a program that is truly driven forward by all the bright and talented students from diverse backgrounds."***

***We are extremely proud of the LiM Symposium committee, who worked diligently throughout the pandemic to host this amazing symposium. We hope that you can take this opportunity to share your research and learn about all the exciting research being conducted in our program."***

# Schedule

09:30–09:50

**Opening Remarks:**

**Dr. Zahra Goodarzi**

<https://ucalgary.zoom.us/j/99371000317>

09:50–10:40

**Poster Session 1**

<https://ucalgary.zoom.us/j/96438681086>

10:40–12:00

**Oral Presentations**

<https://ucalgary.zoom.us/j/91732631490>

12:00–12:10

**Break**

12:10–01:05

**Poster Session 2**

<https://ucalgary.zoom.us/j/92921056482>

01:30–03:00

**Workshop: Imposter Syndrome:**

**Dr. Paula Pearce**

<https://ucalgary.zoom.us/j/96040286165>

03:00–03:30

**Awards and Closing Remarks:**

**Dr. Zahra Goodarzi**

<https://ucalgary.zoom.us/j/97957990449>

# Imposter Syndrome Workshop



Dr. Paula Pearce is a specialist in Geriatric Medicine and General Internal Medicine. She is Program Director of Geriatric Medicine and a Clinical Associate Professor at the Cumming school of Medicine. Dr. Pearce will be presenting on Impostor Syndrome. Imposter phenomenon refers to a collection of behaviors and negative feelings around the fear that you are not as good as others think you are. This experience is common in medicine, and it is correlated with a number of poor physician wellness outcome. During this interactive session, attendees will learn more about the concept of imposter phenomenon while also being invited to reflect on and share their own experiences of imposter phenomenon and how it may impact their career.

# Talks

**10:40-10:55**

Dexamethasone Modulates Immature Neutrophils and Interferon Programming in Severe COVID-19

[Sarthak Sinha]

**10:55-11:10**

Is Living with Persons with Dementia and Depression Correlated to Impacts on Caregivers? - A Scoping Review

[Ann Subota]

**11:10-11:25**

Homeostatic Plasticity in Corticotropin Releasing Hormone Neurons of the Paraventricular Nucleus

[Neil Rasiah]

**11:25-11:40**

Tendency for Long-term Opioid Use Following Tonsillectomy in a Large Population-based Cohort

[Morgan Young-Speirs]

**11:40-11:55**

Despite Increased Disease Activity Women who Attended Dedicated Inflammatory Bowel Disease & Pregnancy Clinic had Better Health Status of Newborns at Birth

[Sangmin (Sarah) Lee]

# POSTERS

Poster Session 1: 09:50–10:40

## Group 1

**1A**

A Shift in Fibroblast Heterogeneity in Aging Mice Inhibits Wound Induced Hair Neogenesis (WHN)  
[Wisoo Shin]

**1B**

Metabolomics Profiling of Coronavirus-infected Lung Cells  
[Spencer Wildman]

**1C**

Investigating a Gene-regulatory Basis to Stroke Risk  
[Stanley Neufeld]

**1D**

Predicting Severity of Pediatric Mitochondrial Cardiomyopathy Using Patient Derived Fibroblasts  
[Melissa King]

**1E**

Compression Garments Reduce Orthostatic Tachycardia in Patients with Postural Tachycardia Syndrome in a Clinical Setting  
[Kate Bourne]

**1F**

Assessing the Effects of Myocardial Infarction on the Immune Cell Profile of Human Pericardial Fluid  
[Ali Fatehi Hassanabad]

**1G**

Activation of MAPK Signalling and Development of Papillary Thyroid Carcinomas in the TSHR D633H KI Mouse Model  
[Alex Stephenson]

## Group 1

**1H**

Cell Vibration Profiling (CVP) Using Optical Tweezers to Improve Tumour Diagnosis: A Novel Methodological Approach  
[Jared Topham]

**1I**

CAV3-CAM-SEC61 Localization at the Membrane and Internal Cellular Structures  
[Charmaine Szalay-Anderson]

**1J**

Ketones Provide an Extra Source of Fuel for the Failing Heart without Impairing Glucose Oxidation  
[Simran Pherwani]



## Group 2

- 2A** Navigating Women's BIA-ALCL Information Needs: Group Seminars may Offer an Opportunity to Empower the Patient-Surgeon Team  
[Jade Park]
- 2B** Prenatal and Postnatal Depressive Symptoms and Longitudinal Changes in Limbic Structure in Young Children  
[Claire Donnici]
- 2C** Comparing Adverse Neonatal and Maternal Outcomes of Sexually Transmitted Infections and Co-infections in Pregnancy  
[Lindey Felske]
- 2D** Efficacy of Cold Renal Perfusion for Open Complex Aortic Aneurysm Repair: A Meta-Analysis  
[Halli Krzuzaniak]
- 2E** The Effect of Weekends on Orthopaedic Trauma Volumes, After-Hours Surgery  
[Darren Van Essen]
- 2F** Femoral De-Rotation Osteotomy versus Hip Arthroscopy for Management of Femoroacetabular Impingement in Adult Patients with Decreased Femoral Anteversion: A Matched Retrospective Cohort Study  
[Alyssa Federico]
- 2G** Arthrodiastasis for the Treatment of Avascular Necrosis as Complication Following Femoral Neck Fracture in Children: A Case Report and Systematic Review  
[Kara Sidhu]
- 2H** Maintained Bone Density in Young Hypoestrogenized Women with a High BMI: Case Series  
[Anabel Cardenas]

## Group 2

- 2I** The Association Between Hormonal Contraceptives on Measures of Blood Pressure, Arterial Stiffness, and Arterial Renin-Angiotension-Aldosterone System: A Comparison Between the Levonorgestrel Intra-uterine System and Oral Contraceptive Pill  
[Cindy Kalenga]
- 2J** Pharmacologic Treatment of Apathy in Parkinson's Disease: A Systematic Review  
[Bria Mele]

## Group 3

- 3A** Lesioned Motor Cortex Neurophysiology in Children with Perinatal Stroke  
[Ephrem Zewdie]
- 3B** National Trends in Healthcare Expenditures for Management of Malignant Melanoma and Non-Melanoma Skin Cancer in the United States: 1996-2016  
[Bryan Ma]
- 3C** Opioid-Related Stigma as a Barrier to OAT Prescribing in Primary Care Setting  
[Chin-Vern Tan]
- 3D** The Hidden Pandemic: Trends of Intimate Partner Violence Emergency Department Presentation During the COVID-19 Pandemic  
[Shima Afhami]
- 3E** Healthcare Challenges Experienced by Indian, Chinese and Filipino Immigrants in the Calgary Healthcare System  
[Ashna Maredia]
- 3F** A Survey of Clinician Perspectives on Handling of Controlled Substances in the Perioperative Setting  
[Cindy Chang]
- 3G** Toward Belonging: A Mixed Methods Study Exploring Medical Student Sense of Belonging  
[Nina Castrogiovanni]
- 3H** Dismantling Systems of Racism in the CMSA: A Case Study and Evaluation  
[Priatharsini Sivana]

## Group 3

**3I**

Vision Outcomes of a Vision Screening Program Amongst School-children in Underserved, Rural Zimba, Zambia  
[Jordan Huang]

**3J**

Becoming a Multiculturally Responsive Supervisor: The Experience of Doctoral Students in Canadian Counselling Psychology Programs  
[Payden Spowart]

# POSTERS

**Poster Session 2: 12:10–01:05**

## Group 4

**4A**

Sting Activation as an Immune-Based Therapy for Soft Tissue Sarcoma

[Kayla Marritt]

**4B**

Identification of Potential Genetic Drivers of Methotrexate (MTX) resistance in Atypical Teratoid Rhabdoid Tumours (ATRT) through a Genome-wide RNAi Screen

[Mehul Gupta]

**4C**

Oncolytic Virus Infection of Perivascular Cells in the Tumour Microenvironment may Drive Tumour Clearance through Enhancing Immune Cell Recruitment

[Madison Turk]

**4D**

Antigen-Specific CD4<sup>+</sup> T-B Cell Interplay Induces a Robust, Polyreactive Systemic Immunoglobulin Response to Commensal Bacteremia

[Mia Koegler]

**4E**

The Role of MIR-520G in Neural Stem Cell Biology

[Myra Joy Chen]

**4F**

How Circulating Tumor DNA and Pathological Complete Response Status in Triple Negative Breast Cancer Informs Earlier Disease Progression

[Brian Cheng]

## Group 4

**4G**

Evaluating the Potential of Tumour Infiltrating Lymphocytes for the Treatment of Adult Sarcoma  
[Alice Ko]

**4H**

Exploring SARS-COV-2 Vaccine Candidates to Induce T-Cell Immunity  
[Michelle Chen]

**4I**

Sex-Based Differences in Sickness Severity During Pseudomonas Aeruginosa Pneumonia Depend on the Presence of Biofilm Polymers, PEL, and PSL  
[Elise Granton]

**4J**

Uncovering the Role of KMT2C Mutations in the Rapid Onset of Infant Leukemia  
[Keon Collett]

**4K**

Metabolic Dysregulation Underlies Osteoarthritis-like Changes in the TMJ  
[Chunpeng Nie]

## Group 5

- 5A** Repetitive Transcranial Magnetic Stimulation as a Treatment for Tourette's Syndrome in Children: A Pilot Study  
[Cynthia Kahl]
- 5B** -
- 5C** Sensorimotor Feedback Gain in Adult-Onset Cervical Dystonia  
[Ellie Campbell]
- 5D** Understanding Kinematic Changes of Subacute Stroke Survivors During a Robotic Rehabilitation Program  
[Alexa Keeling]
- 5E** What can Repeated Intracranial EEG-fMRI Studies tell us about Patients with Drug Resistant Focal Epilepsy?  
[Will Wilson]
- 5F** Development of a Novel Model to Examine State-dependent Responses to a threat: Influence of Sex  
[Andrei Nastase]
- 5G** Complications of Deep Brain Stimulation for Parkinson's Disease and Effect of Micro-Electrode Tracks on Hemorrhage  
[Neil Rasiah]
- 5H** A Novel SCN1A Mutation: A Case Report  
[Aya Ebdalla]
- 5I** High Replication Stress and Limited DNA Repair Capacity Underlies Oligodendrocyte Precursor Cell Radiosensitivity  
[Daniel Berger]

## Group 5

**5J**

Post-Traumatic Seizures and Brain Hyperoxia Contribute to Post-Traumatic Behavioural Deficits  
[Haris Malik]

**5K**

Semaphoring3fa as a Spatial Regulator of Progenitor Cells in a Post-Embryonic Vertebrate Retina  
[Amira Kalifa]



# THANK YOU

## SPECIAL GUESTS AND JUDGES

Dr. Paula Pearce  
Dr. Rebekah Devinney  
Dr. Tara Beattie  
Dr. Todd Anderson  
Dr. Janya Holroyd-Leduc  
Dr. Khara Sauro  
Dr. Morley Hollenberg  
Dr. Jamie Day  
Dr. Dianne Mosher  
Dr. Janeve Desy  
Dr. Bonnie Lashewicz  
Dr. David Park  
Dr. Benedikt Hallgrímsson  
Dr. Zahra Goodarzi  
Dr. Zelma Kiss  
Dr. Kevin Busche  
Dr. Rajiv Midha  
Dr. Christopher Mody



## Department of Medicine



### UNIVERSITY OF CALGARY CUMMING SCHOOL OF MEDICINE

Community Health Sciences Graduate Program  
Department of Biochemistry and Molecular Biology  
Department of Clinical Neurosciences  
Department of Emergency Medicine  
Department of Psychiatry



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**Snyder Institute**  
for Chronic Diseases

CLINICAL  
**NEURO**  
SCIENCES  
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We would like to acknowledge the traditional territories of the peoples of Treaty 7, which includes the Blackfoot Confederacy, comprising the Siksika, Piikani, and Kainai First Nations, the Tsuutina First Nation, the Stoney Nakoda First Nations, including the Chiniki, Bears paw, and Wesley First Nations. The City of Calgary is also home to Métis Nation of Alberta, Region III.