

**HLI Quarterly Meeting**  
**Spring 2023**  
**March 13<sup>th</sup>, 2023**  
**9-10 am**



# Land Acknowledgement

Acknowledge that **we are gathered on the traditional, ancestral and unceded territory of** the Coast Salish peoples—Sk̓wx̓wú7mesh (Squamish), Stó:lō and Səl̓ílwətaʔ/Selilwitulh (Tseil-Waututh) and xʷməθkʷəy̓əm (Musqueam) Nations

If anyone on zoom would like to acknowledge an additional territory they are joining us from, please add it to the chat.

**Adoption of Minutes  
from Dec 12<sup>th</sup> 2022  
Quarterly Meeting**

**Adopted by Beth Whalen, Jordan Guenette**





**Quarterly Meeting 9:00 – 10:00 am**  
**Hybrid – in person and zoom – March 13<sup>th</sup>, 2023**

**Adoption of Minutes from Dec 12<sup>th</sup> 2022**

**Director's Update**

**Dr. Don Sin**

**Centre News**

**Dr. Jordan Guenette**

**Strategic Plan – Progress to Date**

**Operational Updates**

**Chris Robinson**

**HR News**

**Claire Smits**

**Operations Update**

**Ivan Leversage**

**Health & Safety, Education and Events**

**Dan Vikse**

**Facilities and Maintenance Update**

**Darren Sutherland**

**James Hogg Lung Biobank News**

**Dr. Ying Wang**

**Bruce McManus Cardio Biobank Update**

**Naomi Potter**

**HLI Trainee Association**

**Basak Sahin**

**EDI Committee News**

**Dr. Vivienne Chen**

**Grants and Award Successes**

**Dr. Don Sin**

**Team Player of the Quarter Award**

# Director's Update



FACULTY OF MEDICINE

**JAMES HOGG RESEARCH CENTRE INTERNAL REVIEW**  
**REPORT OF THE REVIEW COMMITTEE**

November 15<sup>th</sup>, & 16<sup>th</sup>, 2022

**Leonard Foster**, Head, Biochemistry & Molecular Biology (Chair)

**Pamela Hoodless**, Professor, Medical Genetics and School of Biomedical Engineering (Internal reviewer)

**Bruce Verchere**, Professor, Pathology & Laboratory Medicine (Internal reviewer)



## James Hogg Research Centre recommendations:

5. That senior leadership, through extensive consultation with all faculty, decides on name branding that resonates not only internally but also with the Foundation and the external UBC community, and works to get that approved by all relevant groups, including UBC and Providence Health Care Research Institute. Of particular importance, we encourage them to ensure that this new (or maybe old) branding makes everyone feel included, especially those not doing research on heart and/or lung.
6. That the Director of the JHRC be included in meetings with the builders of the new building to represent UBC researchers. While Dr. Knight is involved in these meetings, he is technically an employee of Providence Health Care and thus has to represent potentially conflicting interests.
7. That senior leadership of JHRC makes an effort to evenly distribute administrative and service workloads across all faculty. This can be achieved by asking those from under-represented groups to only serve on committees where diversity is really important (e.g., a search committee but not the IT committee). Or, if needed, to protect time of or provide additional resources to those people who are needed in specific situations such that they are available to serve when truly needed but not at the detriment to their other activities.
8. That senior leadership works with the Foundation to ensure that principles of equity, diversity, and inclusiveness are factored into any support decisions. The expected outcome of this would be that Foundation support is fairly distributed across all demographic groups.
9. That the Director establishes an annual check-in with the Head of every department that has faculty in the JHRC.
10. That the JHRC has a mentorship policy for new faculty members, arranged jointly with the home academic department. This might include a mentoring committee involving other members of the department and the JHRC.
11. That the JHRC faculty make a concerted effort to bring about a culture change around the EDI environment in the Unit.
12. That senior leadership, together with the administrative team, formulate written policies describing transparency of processes, especially around financial arrangements that impact faculty and research programs.



Faculty of Medicine



**James Hogg Research Centre  
Internal Review  
Self-Study Report, Part B**

Office of the Vice Dean, Research  
UBC Faculty of Medicine

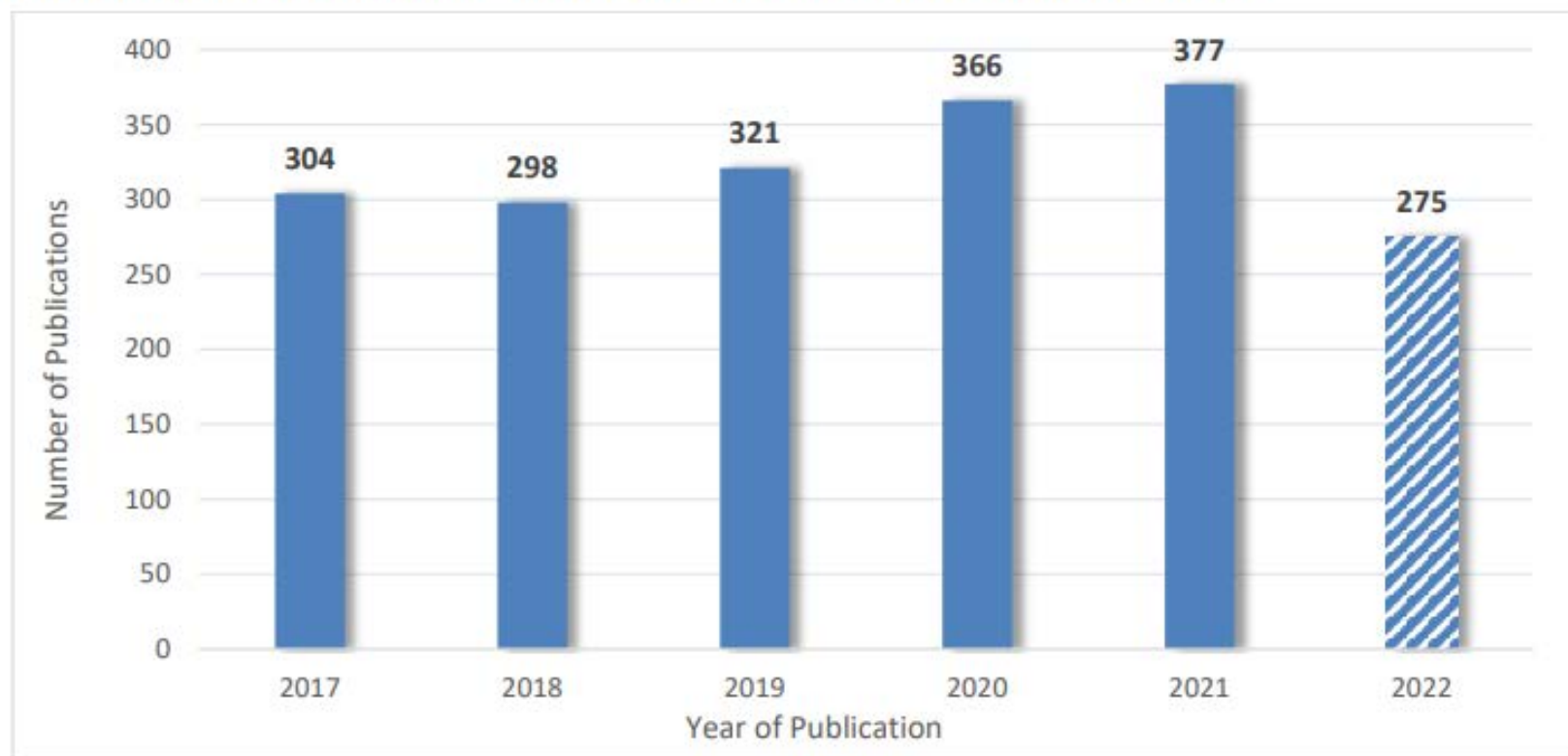


THE UNIVERSITY OF BRITISH COLUMBIA





**Figure 3: Number of Journal Publications by JHRC Core Investigators by Year (2017–2022)**



Data source: SciVal® database, Elsevier B.V., <http://www.scival.com/> (downloaded 10/18/2022)



JAMES HOGG RESEARCH CENTRE – BIBLIOMETRIC ANALYSES OF CENTRE PUBLICATIONS

Figure 1: Major Research Themes & Subject Areas of JHRC Research - Word Cloud based on Keywords Extracted from JHRC Journal Publications (2017–2022)



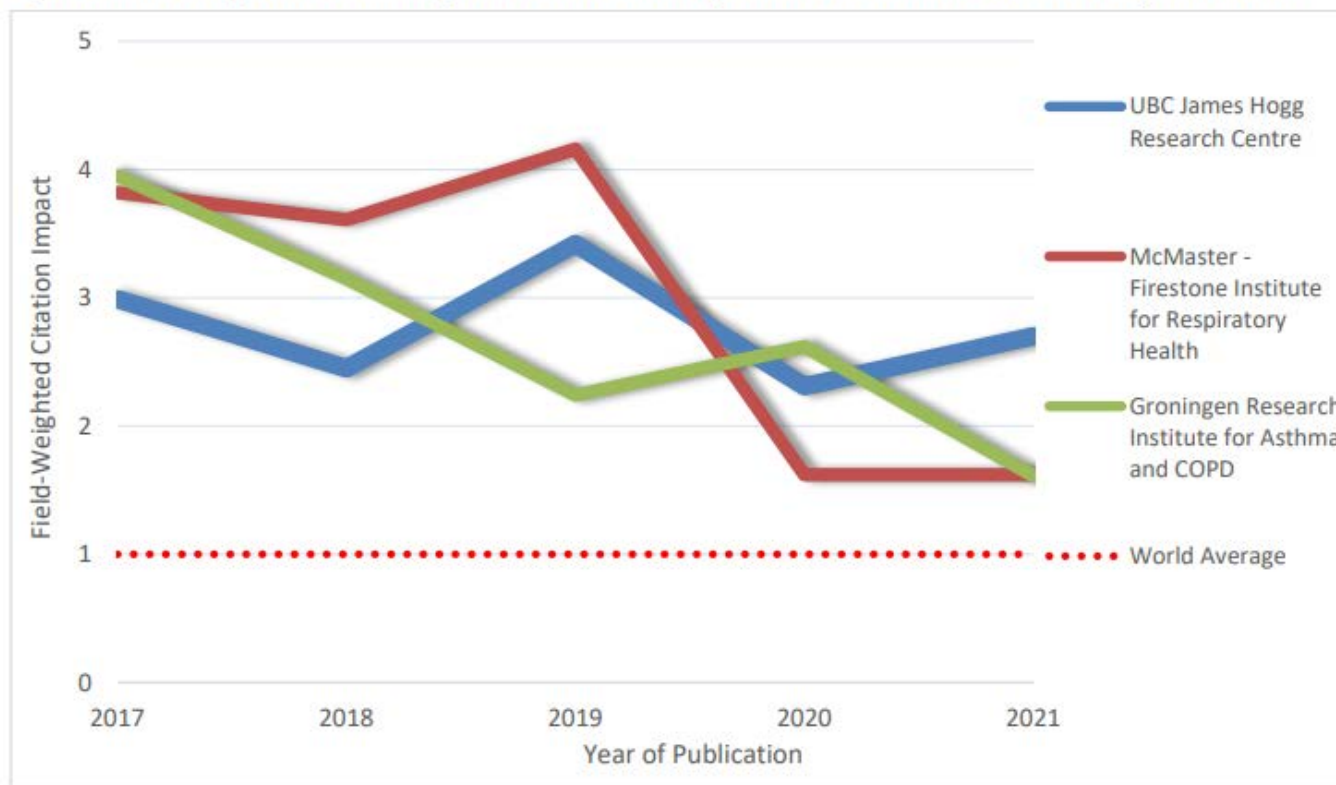
Table 2: Top JHRC Research Topic Clusters (2017-2022) as according to SciVal

#	Research Topic	Publications Output	Field-Weighted Citation Impact
1	Chronic Obstructive Pulmonary Disease; Asthma; Patients	294	2.50
2	Coronary Artery Disease; Patients; Echocardiography	180	2.91
3	Aortic Valve; Mitral Valve; Aortic Valve Stenosis	162	5.36
4	Atrial Fibrillation; Patients, Catheter Ablation	138	2.21
5	Idiopathic Pulmonary Fibrosis; Interstitial Lung Disease; Langerhans-Cell Histiocytosis	130	3.73
6	COVID-19; SARS-CoV-2; Coronavirus	67	6.56
7	Cholesterol; Lipids; Atherosclerosis	61	3.69
8	Cystic Fibrosis; Cystic Fibrosis Transmembrane Conductance Regulator; Pseudomonas Aeruginosa	36	2.37
9	Particulate Matter; Air Pollution; Air Pollutants	34	1.92
10	Sepsis; Acute Kidney Injury; Patients	31	1.89

**Table 8: Broad Overview of JHRC and the Comparator Units**

Unit Name	Affiliated University	Country	# of Investigators in Comparator Data
James Hogg Research Centre	University of British Columbia	Canada	40
Firestone Institute for Respiratory Health	McMaster University	Canada	18
Groningen Institute for Asthma and COPD	University of Groningen	Netherlands	26

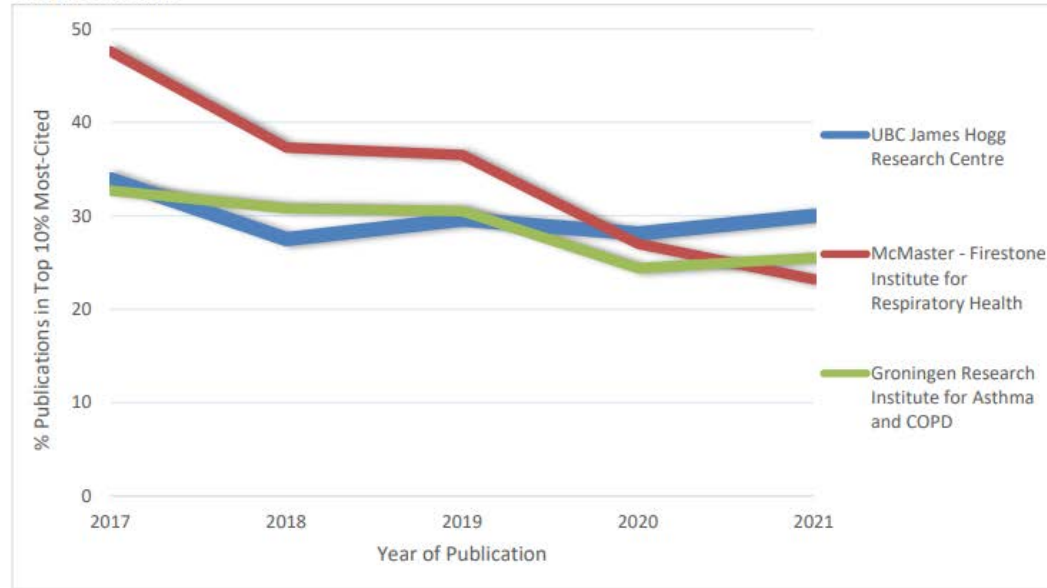
**Figure 7: Field-Weighted Citation Impact for Publications by Year 2017–2021 for JHRC and Comparator Units**



Data source: SciVal® database, Elsevier B.V., <http://www.scival.com> (downloaded 10/17/2022)

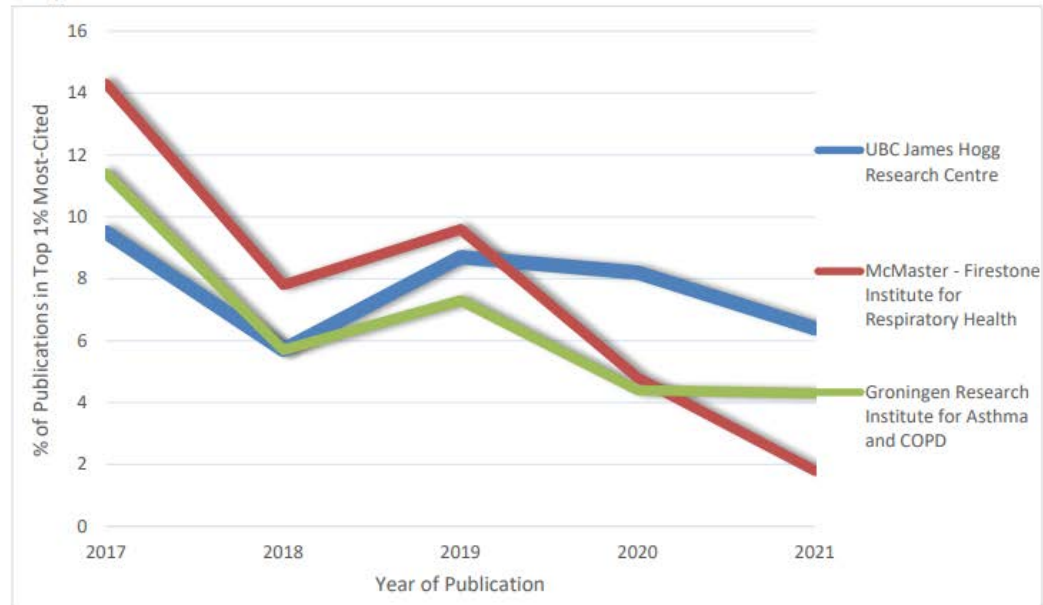


**Figure 8: Percentage of Publications in the Top 10% of Most-Cited Publications from 2017–2021 for JHRC and Comparator Units**



Data source: SciVal® database, Elsevier B.V., <http://www.scival.com> (downloaded 10/17/2022)

**Figure 9: Percentage of Publications in the Top 1% of Most-Cited Publications from 2017–2021 for JHRC and Comparator Unit**



Data source: SciVal® database, Elsevier B.V., <http://www.scival.com> (downloaded 10/17/2022)



# New PI Recruitments on the Way

- Radiology/Peds Faculty Renewal in MRI Data Sciences
- MANU/Faculty of Medicine (Cardiology)/PR Faculty Position in Bio-Manufacturing (3D Bioprinting)



# **HLI Strategic Plan Update**

**Associate Director  
Dr. Jordan Guenette**



## Strategic Plan Implementation Committees



	Research	Education	KT
<b>Chairs</b>	Jordan Guenette	Scott Tebbutt	Stephani Sellers
<b>Trainees</b>	Maria Elishaev Rishika Daswani	Katrina Besler Eric Xiang	Aileen Hsieh Naomi Potter
<b>PIs</b>	Chris Ryerson Tillie Hackett	Amrit Singh Honglin Luo	Janice Leung Zach Laksman
<b>Staff</b>	Beth Whalen Vivienne Chan Kelly Ceron	Ivan Leversage Firoozeh Gerayeli	Kasia Adolphs Gurpreet Singhera Tony Guo
<b>Other</b>	Josephine Jung Arianne Brown Claire Smits Basak Sahin		



## RESEARCH

## TRAINING AND EDUCATION

## KNOWLEDGE TRANSLATION AND MOBILIZATION

### YEAR 1 PRIORITY WORK in 2023

- Create a map diagram that links roles to funding to understand which roles are at risk.
- Develop initiatives to support PI retention.
- Prospectively plan the upcoming move to the new St. Paul's campus.
- Develop a prioritized list of expanded services and infrastructure needed to support research programs.
- Establish a research chair and/or faculty position for Indigenous heart and/or lung health.
- Partner with other departments and research centres that are engaging in Indigenous research.

- Identify resources to address EDI needs.
- Develop a sustainable HLI Trainee Association funding (e.g. develop budget).
- Create mechanisms for trainees to collaborate. (e.g. develop online toolkit).
- Increase trainee exposure to other PIs at HLI (e.g. hosting an Open Lab Day/Week).

- Visit other research programs with best patient engagement practices to learn best practices.
- Identify if there are opportunities to partner with the Core Area Education Strategic Committee and/or the TEE Committee before creating a knowledge translation (KT) committee.
- Work with UBC's Knowledge Exchange Unit to develop a set of modular training materials.





# HLI Operational Updates



# HR Update

- Welcome to all new HLI members!
- Upcoming new members for May (Summer)
  - Organized for network and ID badges
  - New members must attend Orientation
  - Student Volunteers (liability)



# Service Recognition



Beth Whalen  
30 Years!



Teddy Chan  
15 Years!



# Equipment Use at HLI

- Increase in misuse and breakage of centre equipment resulting in costly repairs
- Communication and increased adherence to required training is needed. Lab Managers will be asked to assist with ensuring training is completed. Centre staff will increase monitoring of equipment use and training.
- Training records will be checked
- If something malfunctions or breaks, STOP and let your lab manager or core manager know.



# Equipment Training

- Training is required by each person using equipment, particularly :
- Centrifuges
- Autoclaves
- Microscopes
- Core specialized equipment – check with core managers, it may be run only by core trained staff
- A reminder that training/orientation needs to be completed BEFORE you can enter restricted areas or bring in new trainees or staff with you. Make sure you check with the core manager if you are unsure.



# PHC Environmental Stewardship Committee

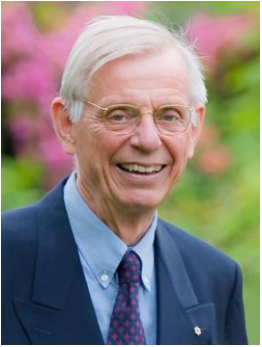
- HLI invited to join as a research representative
- Committee has 3 subgroups
  - Food Waste
  - Environmental Waste
  - Communications

PHC is initiating projects such as improving waste disposal, mask recycling, and improving energy consumption

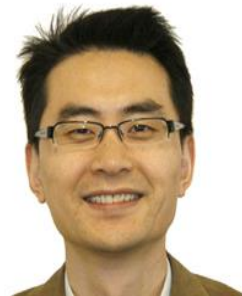


# HLI Day – Celebrating 46 years

## Save the date Friday Sep 22 23



Keynote Speaker: TBD



# Health & Safety Education Events



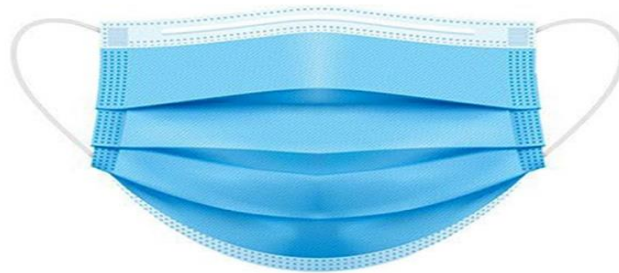


# COVID-19 2023

**Until further notice, masks are still required to be worn on site. This includes public hospital areas at St Paul's and in the Centre for Heart Lung Innovation. (removal is acceptable in single occupancy offices and when eating/drinking)**

**HLI's policy is if you test positive for COVID-19, you cannot return to work on site until you test negative. Please discuss with your supervisor.**

**Masks are available at the hospital main entrance and at HLI Reception (room 166).  
COVID-19 test kits for HLI members can also be requested at HLI Reception.**



# COVID-19 Rules Reminder

- If you are unwell or are exhibiting symptoms - **stay home**
- Do not return to work until you have a negative COVID test
- Practice physical distancing
- Sanitize common touch areas frequently and work areas
- Wash hands frequently

# Health & Safety

- Chemical Waste Disposal -Feb 23– 515 Kg of waste chemicals disposed this is a reduction of 26 kg (541) from Feb 22
- Having a ‘partner’ is required when you transport large liquid nitrogen containers between floors
- N95 Fit Testing – Contact Ivan Leversage [ivan.leversage@hli.ubc.ca](mailto:ivan.leversage@hli.ubc.ca)
- It is mandatory for all new hires (students and staff) to attend an HLI Orientation session. We do not accept volunteers due to liability issues
- Coming Soon June 23–Transport of Dangerous Goods (TDG) Training



# Education Update

- **RIP Seminar Q1 2023** - 323 attendees – 8 sessions (avg attendance - 41)
- **Friday Seminar Series Q1 2023** - 271 attendees – 5 sessions (avg attendance - 55)
- **HLI Friday Seminar Funding Request** – Thank you to all who have contributed, have raised **\$8000** to date
- **PATH MEDI 570** – Final exam in person April 26
- **PATH 521** – Under construction (starts June 6)
- **HLI High School Student Week (Spring)** – April 17-21

# Lunar New Year Celebration Jan 24<sup>th</sup> Year of the Rabbit (Part 1)



# Lunar New Year Celebration Feb 1<sup>st</sup> Year of the Rabbit (Part 2)



Thanks to Hattie, Alexandria,  
Linda, and Lu



# Pink Shirt Day Feb 22



Thanks to UBC HLI organizers (Basak and Claire)

# Facilities & Maintenance

- Freezer Billing Notices for 2023/24 went out last week.
    - Please ensure you identify the “Designated Person”
    - Identify the account from which the invoice will be paid
- 

- SPH in-patient services are expected to expand. This will result in
  - Tentative loss of HLI space (~May 23)
    - 2nd Floor Burrard South (IT- Aperio Room(Kyle’s office), Storage
    - Comox basement – Tech Dev (machine shop) & “J” Locker storage
  - SPH is working to identify alternative nearby space to relocate us to







Centre for  
**Heart Lung Innovation**  
UBC and St. Paul's Hospital



- *Digitized in the database, occupational exposure history and radiology reports, that were never formally recorded for 1500 patients within the JHLB*
- *Provided biobanked samples for 5 new projects*
- *Received our first lung resection samples from Fraser Health Memorial Hospital for biobanking*

*Dr. Tillie Hackett, Director, & Darren Sutherland, Manager, JHLB*

# Bruce McManus Cardiovascular Biobank

- **New workflow:** Designated coordinator; Standardized requesting, tracking, and invoicing procedures
- **New consent form:** Blood collection and re-contacting the patients; Biobanking vs. Individual study
- **Website:** Increased transparency
  
- **Expertise:** Review clinical records; Better categorization
- **Scientific review:** Criteria
- **Advisory committee:** Patient engagement, Intellectual property, Ethics, Sustainability, Collaboration





# **HLI Trainee Association**

## **Naomi Potter**



# Snowshoeing!



Cypress Mountain

Join us in 2024!



# Donation drive



Clothing and other items given to Downtown Eastside Women's Centre and Union Gospel Mission to help our neighbours.

Thanks!



# Christmas Party!



# HLI Peer Mentorship Program: Sept 2021- present



- Currently have 5 mentees/mentors pairs based on interests and experiences
- Multiple workshops to help trainees understand career paths after graduate school



# Mentorship Program: Professional Development Series



HLI MENTORSHIP ORGANIZING COMMITTEE  
PROUDLY PRESENTS:

## PROSPECTS OF HLI ALUMNI



**Dr. Tim Xue**  
Science and Innovation  
Advocate | Genome BC



**Dr. Stephen Milne**  
Postdoctoral Fellow | Centre  
for Heart Lung Innovation



**Nancy Yang**  
Lab Automation  
Scientist | AbCellera



**Dr. Anthony Tam**  
Research Scientist |  
NanoVation Therapeutics



November 23,  
2022



Gourlay  
Conference Room



3:00 - 5:00  
PM

contact us: [trainees@hli.ubc.ca](mailto:trainees@hli.ubc.ca)

RSVP  
NOW



## GRADUATE PATHWAYS TO SUCCESS

Learn how to manage your academic experience and career planning

**WEDNESDAY, 22 FEB 2023** RSVP with QR Code

**JAMES HOGG CONFERENCE CENTRE**

**12 -1 PM** Faculty, Staff and Trainees are welcome to attend. Pizza will be provided

**Jacqui Brinkman, MSc**  
Director of Graduate Student  
Professional Development at  
G+PS

**Danielle Barkley, PhD**  
Career Educator at the Centre  
for Student Involvement and  
Careers







**Tony Yang, PhD**  
Medical and Scientific  
Liaison, Oncology  
Merck



Centre for  
**Heart Lung Innovation**  
UBC and St. Paul's Hospital



**PROFESSIONAL DEVELOPMENT  
SERIES:**

# Career Beyond Bench

An introduction to Medical Affairs &  
Medical Science Liaison

RSVP



**MARCH 23 (3-4PM)**  
**JAMES HOGG CONFERENCE CENTRE**  
**(HLI)**

# Upcoming in the series...



# Mentorship Program

## Future Directions & Collaboration



- Working with CHEOS and other centres at SPH
- Social events to connect trainees across disciplines
- Networking and learning about industry careers



# Move UBC



- Trainee Wellness Committee + Mentorship Program were awarded \$800 to hold Pilates and kickboxing classes at HLI.
- Stay tuned for dates!



# Scholarship and Peer Review Committee



- Upcoming CIHR mock grant review panel, for trainees to practice peer review: stay tuned!
- Recruiting Committee Chair: contact [katrina.besler@hli.ubc.ca](mailto:katrina.besler@hli.ubc.ca) if interested



# Biostats Training Committee



- Bootcamp scheduled (tentative) June 13-15: introduction to R and descriptive statistics, data visualization, hypothesis testing and introduction to statistical tests.
- Survey coming soon re: training needs



# Rock the Boat



- Upcoming in April: facilitated discussion on issues of student-supervisory relationships and their impact on student and faculty wellbeing, using UBC's Research-based Theatre resource.
- Contact [naomi.potter@hli.ubc.ca](mailto:naomi.potter@hli.ubc.ca) if interested in getting involved or being trained to facilitate



# We're on social media!



Facebook: Trainee  
Association at HLI



Instagram: [ubc.tahli](https://www.instagram.com/ubc.tahli)



# Get involved!



- All trainees (undergrad, graduate, postdoc) are welcome
- Next TAHLI meeting **Mar 16<sup>th</sup>, 2:30 pm**
- Leadership, networking, access to HLI funds and resources to shape your graduate school experience
- Available positions
  - TAHLI Co-Chair in training
  - Research Day organizing committee





# HLI EDI Committee

*Introductions and Updates*



# EDI Committee

## Events held Last Quarter:

1. January 17<sup>th</sup> Unpacking Racism and Engaging with Allyship and Anti-Racism *Dr. Neila Miled*
2. February 17<sup>th</sup> - FoM REDI's: Black Lives, Black Voices and Black Identities



# EDI Committee

## Upcoming Events and Initiatives:

- ❖ March 15<sup>th</sup> - Respectful Environments and Upstander Engagement (*Robyn Campol*)
- ❖ May 16<sup>th</sup> - Creating Inclusive Spaces (*Dr. Neila Miled*)
- ❖ TBD: Documentary screening: *British Columbia: An Untold History* (Knowledge Network)
- ❖ March 31<sup>st</sup> - International Transgender Day of Visibility



# EDI Committee

## Upcoming Events and Initiatives:

- ❖ Indigenous High School Studentship 2023
- ❖ EDI Guidelines for HLI Committees
- ❖ Collaboration with CHEOS EDI leaders (Julie and Rana)
- ❖ EDI Supercluster



# We would like your input on catering!

- ▶ Please share your catering suggestions with us for EDI and other centre events.
- ▶ We would like to support local restaurants and equity-deserving business owners



# Grants and Awards

December 13, 2022 to March 13, 2023

# PI Grants and Awards

## CIHR Project Grant (Fall 2022)



### Jordan Guenette

*Physiological and morphological mechanisms of increased dyspnea in females with COPD*

\$990,675



### Honglin Luo

*Innate immune mechanisms of viral myocarditis: Role of the cytosolic DNA-sensing pathway*

\$910,350



# PI Grants and Awards

## CIHR Project Grant (Fall 2022)



### **Kelly McNagny**

*Development and functional diversity of innate lymphoid cells*

\$956,250

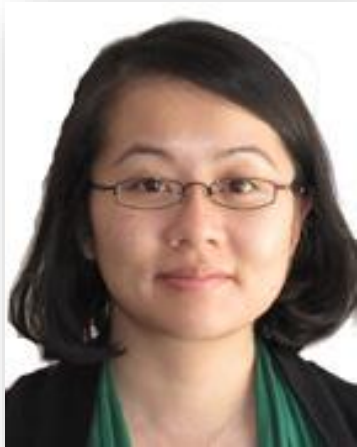
Podocalyxin's role in tumor invasion, metastasis, and immune evasion

\$100,000 (Bridge Grant)





# PI Grants and Awards



**Janice Leung**

**Health Innovation Funding Investment (HIFI) Award**

*Understanding Mechanisms of Respiratory Impairment in People Living with Human Immunodeficiency Virus (HIV) Using Optical Coherence Tomography (OCT)*

\$25,000



**Kelly McNagny**

**Canadian Society For Immunology 2023 Investigator Award**



# PI Grants and Awards



## Ilker Hacıhaliloğlu

Postdoctoral fellow: Mohammadreza Salmanpourpaenafrakati

**MITACS**

*Application of deep learning generative network algorithms linked with super-resolution methods and fusion techniques to improve the quality of noisy and unlabeled ultrasound images*

Partner: Microsoft Canada Development Center

\$120,000

## Scott Tebbutt

Postdoctoral fellow: Estefania Espin

**MITACS**

Understanding diverse COVID-19 outcomes at the cellular and molecular level

Partner: PROOF

\$75,000



# PI Grants and Awards



## **Stephanie Sellers (co-applicant)**

**PI: David Newby**

**British Heart Foundation**

*Finding A Cure for Aortic Stenosis*

\$3,200,000



## **Jim Russell (co-applicant, Pillar 1 Lead)**

**PI: Angela Cheung**

**CIHR**

*Long COVID Web: Pan-Canadian Post-COVID Condition  
Research Network*

\$19,999,615



# PI Grants and Awards

## Tillie Hackett (subaward)

PI: David Earle and Prescott Woodruff

**NIH**

*UCSF Asthma and Allergic Diseases Cooperative Research Centre*

\$4,000,000

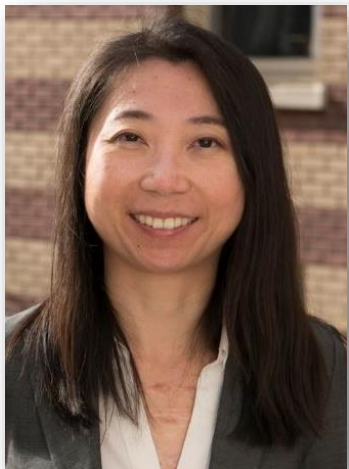


## Ying Wang

**Canadian Society of Atherosclerosis, Thrombosis and Vascular Biology - CLVS Stewart Whitman New Investigator Award**

*Characterizing local inflammation targeted by colchicine in patients with coronary artery disease*

\$10,000



# Trainee Grants and Awards



## **Gillian Goobie (Hackett & Ryerson)**

### **CIHR Fellowship**

*Air pollution as a modulator of molecular, structural, and clinical outcomes in patients with fibrotic interstitial lung disease*

\$165,000



## **Justin Turner (Camp)**

### **CIHR / Canadian Lung Association Allied Health Research Fellowship**

\$10,000

### **RHSC Travel Award**

\$1,000



# Trainee Grants and Awards



## **Alyson Wong (Ryerson)**

### **Carraresi Early Career Clinician Investigator Award**

*The Impact of Frailty on Prescribing Patterns and Medication Tolerability in Patients with Fibrotic Interstitial Lung Disease*

\$35,000

### **CIHR / Canadian Lung Association – Respiratory Effects of Long COVID Grant**

*Identifying long COVID phenotypes and their association with long-term quality of life*

\$39,696



# Trainee Grants and Awards



## **Fatemeh Aminazadeh (Hackett)**

**CIHR / Canadian Lung Association Studentship**

*The contribution of sex differences to small airways disease in Chronic Obstructive Pulmonary Disease (COPD)*

\$21,000



## **Carli Peters (Leung)**

**CIHR / Canadian Lung Association Fellowship**

*Utilizing optical coherence tomography and exercise to develop novel biomarkers of respiratory impairment in people living with human immunodeficiency virus*

\$45,000



# Trainee Grants and Awards



## Rachel Eddy (Sin)

### CIHR Travel Award

*<sup>129</sup>Xe Magnetic Resonance Imaging-Based Phenotypes of Long COVID: A Multi-center Evaluation*

\$1,500

**International Society for Magnetic Resonance in Medicine** W.S. Moore Young Investigator Award in Clinical Science Finalist

\$500 USD



## Maria Elishaev (Wang)

### Department of Pathology Graduate Award

*Characterizing foam cells in human atherosclerotic lesions using a new multiplex imaging platform.*

\$17,500





# Trainee Grants and Awards



**Estefania Espin (Tebbutt)**

**UBC 4 Year Fellowship**

\$18,200 + tuition coverage



**Cyril Helbing (DeMarco)**

**CCNA Trainee Research Support Program**

\$1,000



# Trainee Grants and Awards

## **James Hogg Award**

- Geoffrey Nonis (Koelwyn)
- Keith Wu (Hackett)
- Raveen Badyal (Dunne & MPCL)
- Xindi (Cindy) Wang (Bernatchez)

## **Peter Pare Award**

- Débora Petry-Moecke (Camp)
- Lauren Forgrave (DeMarco)

## **Bruce McManus Award**

- Meng Wang (DeMarco)
- Katrina Besler (Francis)



# TEAM PLAYER OF THE QUARTER

**This quarter we had 5 people nominated !  
Here are some comments from the winner's nominees**

- This person keeps all the PI's CV's up to date and has never missed a deadline.
- This person is always friendly, helpful and positive
- She has been doing a fantastic job with coordinating Strategic Plan initiatives and her hard work is why the committee meetings have been so productive



# TEAM PLAYER OF THE QUARTER WINNER



**Arienne Brown**

Winner will receive a \$50 gift card (of your choice)  
Let Claire know your preference (ideally e-card)



**Next Quarterly Meeting**  
**Summer QM**  
**June 19<sup>th</sup> 2023**  
**9-10 am**

**Stay tuned for more news of 'HLI Day' planned for**  
**Sep 22<sup>nd</sup> 2023** (separate from Research Day)

