



Michael Smith  
**Health  
Research BC**

# **2024 Research Trainee Competition**

## **Information Session Webinar**

**Asta Jureliaviciute**

**Kate Wilczak**

**November 22, 2023**





As a provincial organization, our work extends across many Indigenous lands and territories throughout British Columbia. We acknowledge with respect and humility that our Vancouver offices are located on the traditional and unceded territories of the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and səłilwətaʔt (Tsleil-Waututh) Nations.

# Webinar Agenda

- About Health Research BC
- Overview of Award
- Insights from a 2021 award recipient Dr. Ana Hernandez Cordero
- Organizations with Research Trainee award recipients
- Award Amount and Duration
- Eligibility Requirements
- Supervisor(s)
- Changes for 2024
- Knowledge Translation
- Partnership Opportunities
- Application and Review Process
- Evaluation
- Application Tips
- Contact Information & Q and A session



# Overview of the Research Trainee



# RESEARCH TRAINEE PROGRAM



A post-doctoral health researcher or health professional eligible for a fellowship

A Trainee award provides:



\$60,000 per year for up to 3 years



Up to 75% of time protected for research

Research Trainee awards enable researchers to:



Increase research productivity



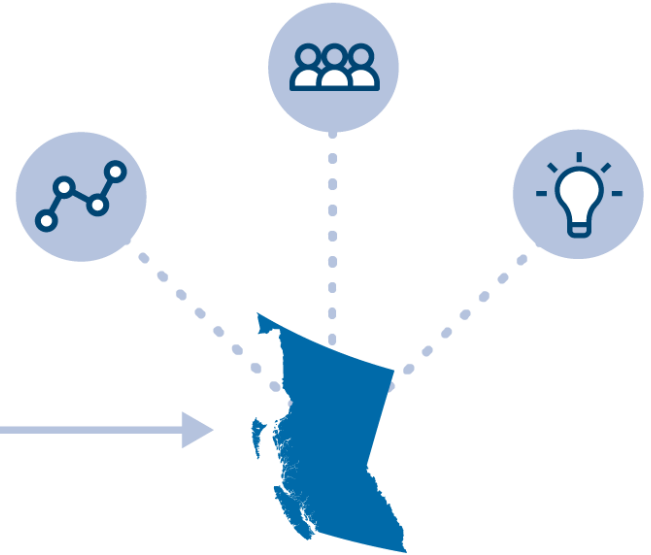
Launch successful careers in research, biotech, health policy, and more



Attract additional funding



Create knowledge to inform practice, policy + further research



## Benefits to BC:

- Develops BC talent
- Supports the knowledge economy
- Builds health research capacity



**Insights from a 2021 award recipient**

**Dr. Ana Hernandez Cordero**

**Project: Understanding the link between lung genomics, transcriptomics,  
and sex differences in COPD**





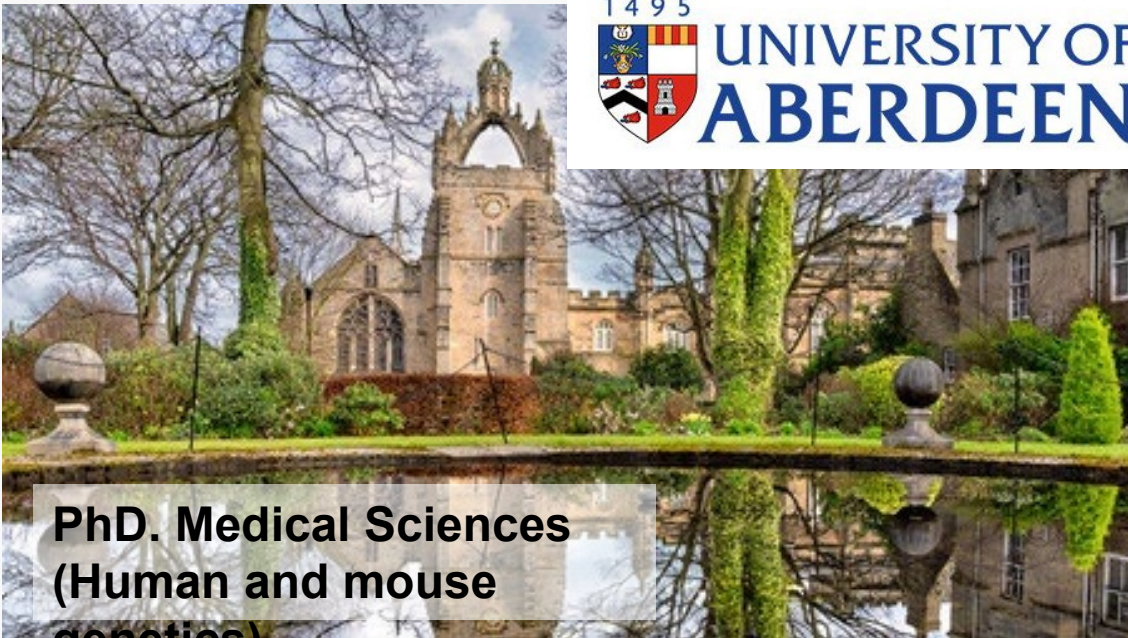
**BSc.  
Biotechnology**



**COLORADO STATE  
UNIVERSITY**



**MSc. Animal Sciences  
(Animal reeding and  
genetics)**



**PhD. Medical Sciences  
(Human and mouse  
genetics)**



**Postdoctoral training  
(Omics of Chronic Obstructive Pulmonary  
Disease)**





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



**Dr. Janice Leung**

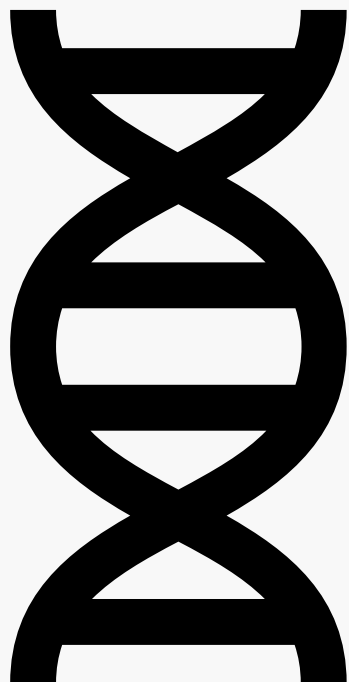


**Dr. Don Sin**

**St. Paul's Hospital, Vancouver, BC**



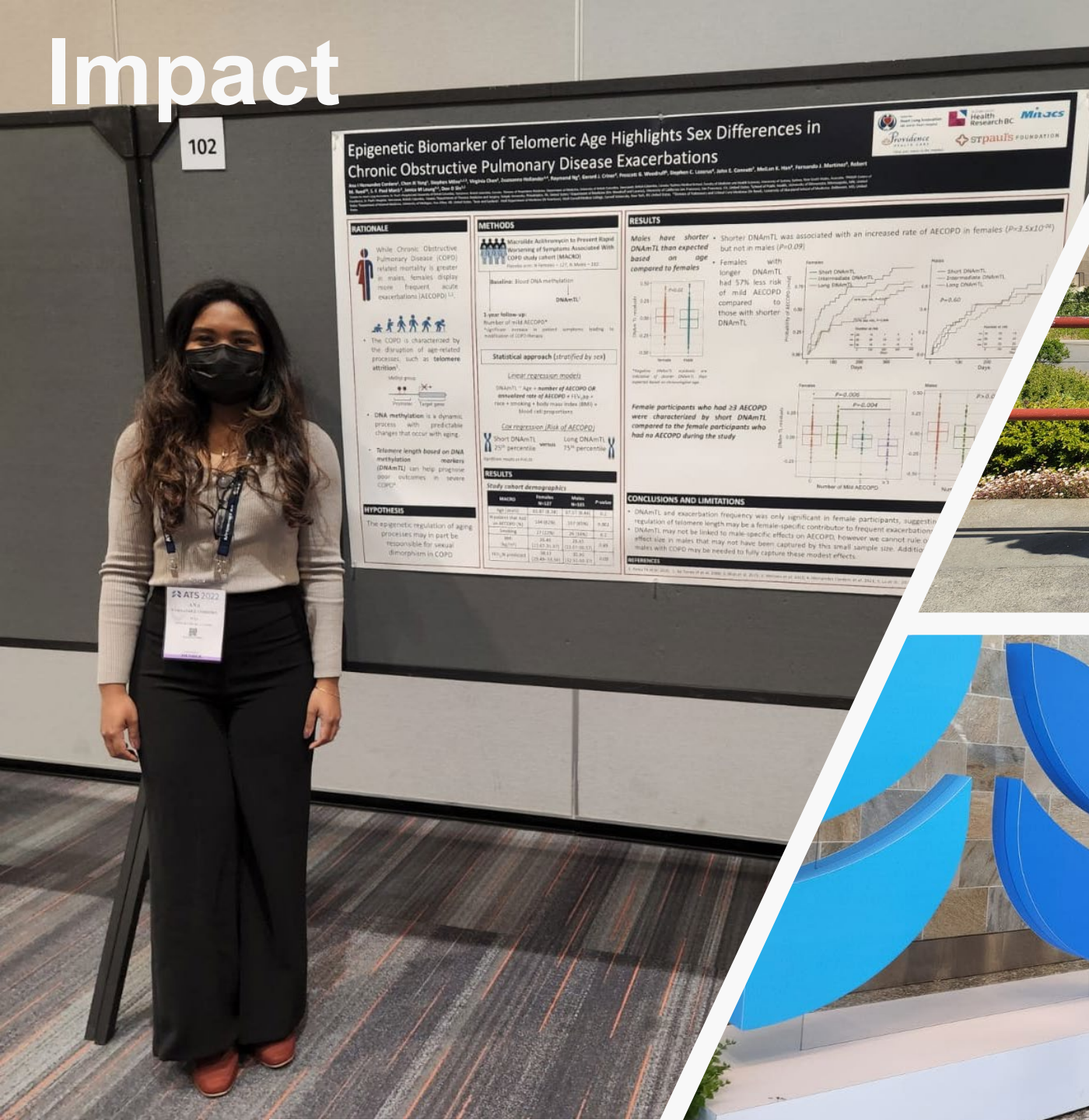




Use of genetic information to (COPD) risk  
stratify female and male individuals

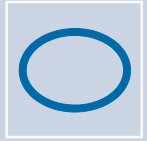


# Impact





# Impact



Change of situations



COVID 19




New skills



New challenges = New  
opportunities


# Impact:




ATS Red Journal

@AJRCMB

Clotting in COVID-19: Is It All in the Genes?



Open Access



[ow.ly/jucv50F4w3V](https://ow.ly/jucv50F4w3V)

COVID-19 coagulopathy mechanism in the lung

1 Upregulated factors

**Tissue Factor**: master regulator of the extrinsic coagulation cascade

**PLAU**: activation of plasminogen and tissue remodeling. In the lung PLAU can also induce increased Tissue Factor expression.

**PLAUR**: plasminogen activator

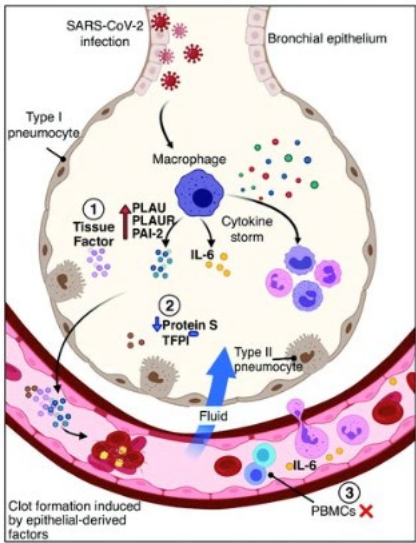
**PAI-2**: inhibits tissue plasminogen activator


2 Downregulated factors

**Protein S**: antagonizes the coagulation cascade and promotes TFPI activity

**TFPI**: Inhibitor of the Tissue Factor protein

3 Coagulation genes were not part of the transcriptomic signature of circulating immune cells (PBMCs)






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Epigenetic blood biomarkers of aging and mortality in COPD

Chronic Obstructive Pulmonary Disease (COPD) is an age-related condition that is linked to cellular deterioration


In COPD, contributors to cell deterioration include environmental factors such as cigarette smoking and persistent lung inflammation.




Environmental factors can alter the effect of genes through epigenetic modifications. These factors can also increase replicative senescence, an age-related process.



Replicative senescence is characterized by progressive telomere shortening, measured by a methylation biomarker associated with telomere length. Telomere shortening ultimately leads to cell cycle arrest and death.




Patients with COPD have shorter telomeres and faster rates of telomere shortening compared to controls; however, the clinical impact of cellular or replicative senescence in COPD remains uncertain.




Epigenetic blood biomarkers of cellular and replicative senescence may improve the clinical assessment of COPD patients, particularly for those at a higher risk of death. Furthermore, epigenetic clock (i.e. biologic age) predicts mortality in COPD better than chronological age.


Read the complete publication here:  
<https://pubmed.ncbi.nlm.nih.gov/34561282/>




PROOF  
OF  
CONCEPT  
STUDY




ST Paul's  
FOUNDATION




Mitacs  
Accelerate



Providence  
HEALTH CARE  
How you want to be treated.  
[www.providencehealthcare.org](https://www.providencehealthcare.org)



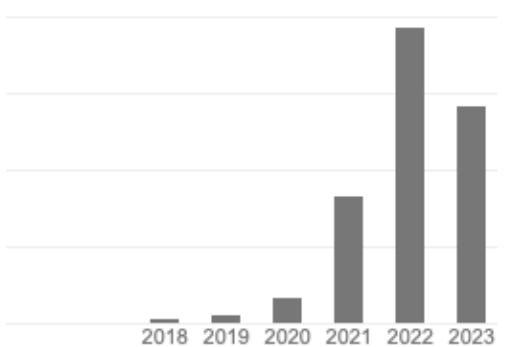
THE UNIVERSITY OF BRITISH COLUMBIA



Michael Smith  
Health  
Research BC

Cited by

	All	Since 2018
Citations	1026	1024
h-index	12	12
i10-index	12	12



Year	Citations
2018	10
2019	20
2020	40
2021	180
2022	450
2023	340



# Impact: New collaborations



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The **Edwin S.H. Leong Centre for Healthy Aging** at UBC brings together researchers across disciplines to investigate aging in a comprehensive and holistic way in order to help people in British Columbia, across Canada, and around the world stay healthy, happy, and active as they age.

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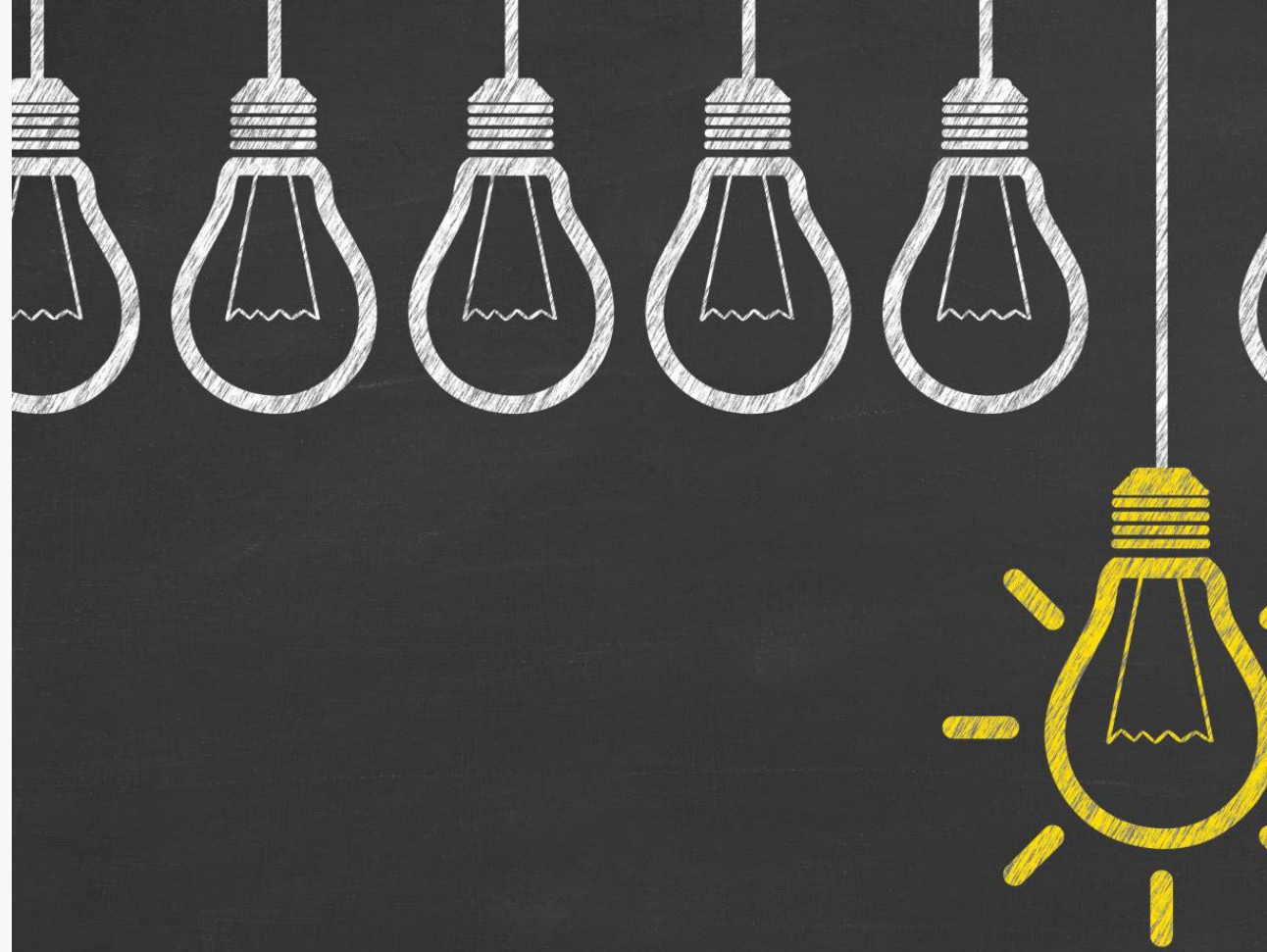
# More opportunities

## BC Lung grants

- 50k

## CIHR

- Project grants
  - 300k
- Career Transition Awards
  - 270k





# More than a grant...

**Responsive  
Understanding  
Supportive**



# Advice

- Write your application, and then *revise, revise and revise!*
- *Read, read and read!*





# Advice

- Don't wait until the last minute to submit !
- Check in with your references



# Advice

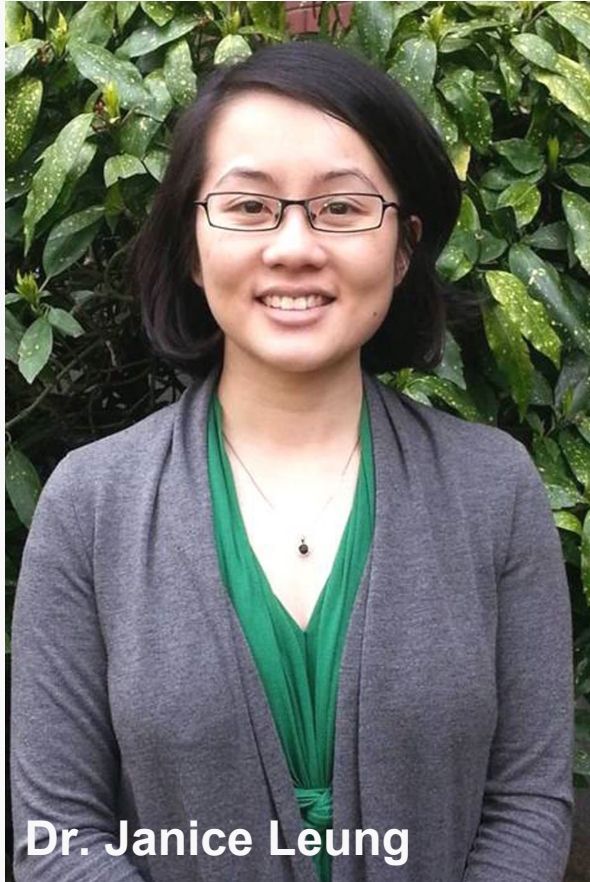
- Ask for applications from previous years (within your institution)
- Find a **supportive** team, and be *mindful of individuals' time*



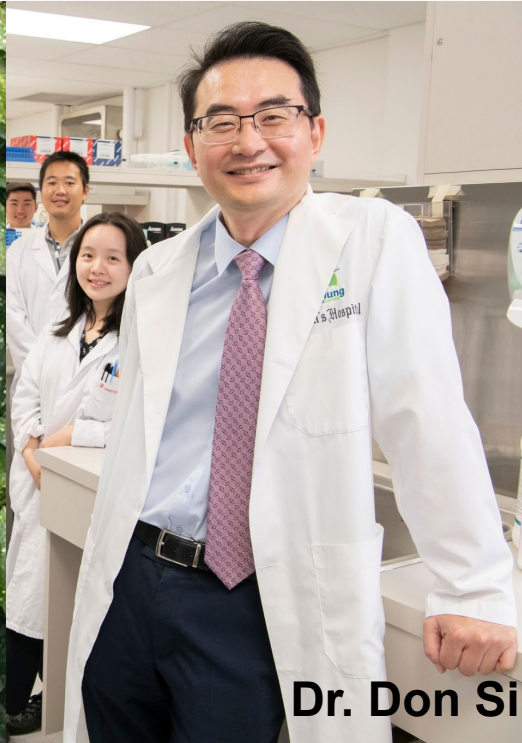
# Thank you



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UBC and St. Paul's Hospital



Dr. Janice Leung



Dr. Don Sin



Michael Smith  
**Health  
Research BC**



**STpaul's** FOUNDATION

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# Organizations with Research Trainee Award Holders

The following organizations have had Research Trainee award holders in the past three years:

- BC Cancer
- BC Centre for Disease Control
- BC Centre for Excellence in HIV/AIDS
- BC Centre on Substance Use
- BC Children's Hospital Research Institute
- BC Women's Hospital + Health Centre
- Centre for Clinical Epidemiology and Evaluation
- Centre for Heart Lung Innovation
- Djavad Mowafaghian Centre for Brain Health
- Fraser Health Authority
- GF Strong Rehabilitation Centre
- International Collaboration on Repair Discoveries (iCORD)
- Michael Smith Laboratories
- Provincial Health Services Authority
- University of Northern British Columbia
- University of the Fraser Valley
- Simon Fraser University
- University of BC – Point Grey and Okanagan
- University of Victoria
- Vancouver Coastal Health Research Institute
- Vancouver Prostate Centre
- Women's Health Research Institute

# Award Amount and Duration

## Research Themes



Applicant

## Each Trainee Award:

**1 to 3 years**

**Stipend: \$60,000**

**+**

**Research and Travel Allowance**

**\$4,500**

# Eligibility Requirements

- Canadian citizens, permanent residents, and foreign nationals are eligible.
- Hold a **PhD OR** be a **health professional (HP) in active clinical service**.
- Hold a **Postdoctoral fellowship or equivalent** at a BC university or research institution by the award start date, and for the duration of the award.
- Project in 1 of 4 research themes (Biomedical, Clinical, Health Services Research, Population Health), with clear link to human health.
- < 6 years from completion of PhD degree as of September 1, 2024 (<11 years for HP).
- 75% protected research time committed by supervisor (50% for HP).



# Supervisor(s)

An applicant can have **up to two** supervisors. The primary supervisor must have an academic appointment (assistant, associate, or full professor) with a BC institution that holds a memorandum of understanding with Health Research BC. Applicants may also have a co-supervisor who is an independent researcher with expertise related to the proposed research area. The co-supervisor may be located outside of BC.

## The primary supervisor agrees to:

- Supervise the applicant's research and provide the resources that are necessary for the successful completion of the research project including any KT activities.
- Administer the research and travel allowance of the award recipient.
- Respect the obligations described in the Health Research BC Research Trainee competition guidelines and conditions of award.

# Changes for 2023

- Covid-19 impacts are now incorporated into the Career Timeline section
- Space to detail your Pathway to Impact (Knowledge Translation) and engagement of research users, including people with lived/living experience

# Knowledge Translation (Pathway to Impact)



# Knowledge Translation (KT) at Health Research BC

**The broad range of activities and initiatives used to improve the use of health research evidence in health planning, practice, policy, and further health research.**

- It's more than dissemination
- A “**Pathway to Impact**” for health research evidence
- Includes KT Practice and KT Research

# Why is Knowledge Translation Important?

- In 2009, Chalmers and Glasziou estimated that globally ~85% of biomedical research investment is wasted<sup>1</sup>
- MacLeod *et al.* estimated that across *all* health research this amounted to ~US\$200B of wasted funding in 2010<sup>2</sup>

<sup>1</sup>Chalmers & Glasziou. *Avoidable waste in the production and reporting of research evidence*. The Lancet (2009) 374;9683:86-89

<sup>2</sup>MacLeod et al. *Biomedical research: Increasing value, reducing waste*. The Lancet. (2014) 383;9912:101–4

# The Impact of Research Waste

- 30% of patients do not get treatments of proven effectiveness
- 25% of patients get care that is not needed or potentially harmful
- Up to 75% of patients do not get enough information to make decisions
- Most programs to address gaps in patient care are not:
  - evidence-based
  - being implemented as intended
  - being evaluated rigorously
  - being sustained.

Kiesler DJ, Auerback SM. Optimal matches of patient preferences for information, decision-making and interpersonal behavior: evidence, models and interventions. Patient Educ Couns 2006;61:319-41.

Dawes, M., Sampson, U.: Knowledge management in clinical practice: A systematic review of information seeking behavior in physicians. Int J Med Inform 2003;71:9-15 .

McGlynn Elizabeth A, Asch Steven M, Adams John, Keeseey Joan, Hicks Jennifer, DeCristofaro Alison, Kerr Eve A. The quality of health care delivered to adults in the United States. N Engl J Med. 2003 Jun 26;348(26):2635–2645.

# Pathway to Impact

**KT Practice:** the use of KT models, frameworks, and/or theories

## Synthesis

The contextualization and integration of research findings of individual research studies within the larger body of knowledge on the topic.

## Dissemination

The active, purposive distribution of research findings tailored to the unique needs of appropriate audiences with the intent to spread information.

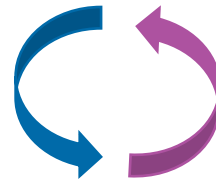
## Exchange

The giving and receiving of knowledge between researchers and research users throughout the research cycle resulting in mutual learning.

## Implementation

The use of strategies to adopt and integrate evidence-based interventions and to change practice within specific settings.

KT activities are dynamic and interrelated; they can occur at multiple points in the research cycle



**KT Science/Research:** the study of KT practices

## Science of Knowledge Synthesis

The scientific study of the methods used to synthesize individual research findings within the larger body of knowledge on the topic.

## Science of Knowledge Dissemination

The scientific study of processes and variables that determine and/or influence the spread of knowledge to various stakeholders.

## Science of Exchanging Knowledge

The scientific study of the methods used to exchange knowledge between researchers and research users that results in mutual learning.

## Implementation Science

The scientific study of methods that promote the systematic uptake of research findings and other evidence-based practices in clinical, organizational or policy contexts.

KT practice and research are interrelated; they can inform the work of the other and take place within the same research study



# KT Practice and KT Research

- KT Practice activities are the steps in your “pathway to impact”
  - What steps do you need to take?
  - Talk with other researchers to see what KT activities they’ve used
- KT Practice activities are evidence-based
  - Look at KT models, frameworks, and theories to inform your KT plan development
- KT Practice is not the same as KT Research
  - But KT Research proposals should include KT Practice activities
- KT Practice activities should be included in all pillars (i.e., biomedical, clinical, population health, health system), as appropriate to the type of research, expected findings, and research users
  - e.g., KT in bench research will look different than for population health research, and that’s okay!

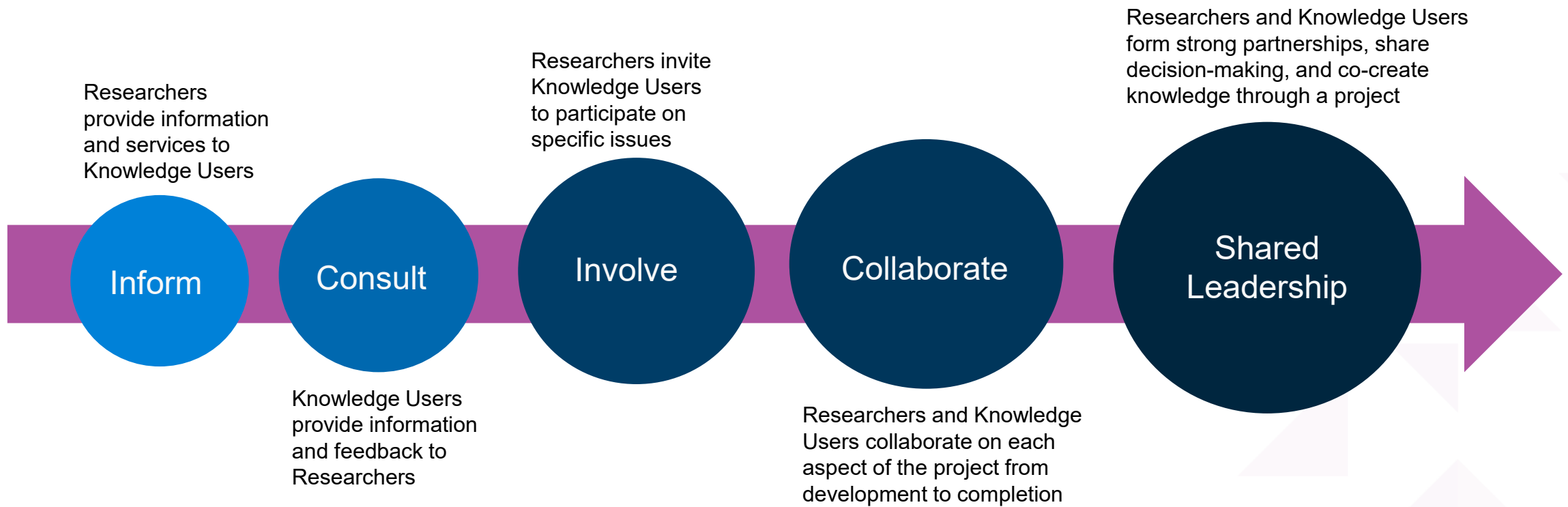
# End-of-Grant KT vs. Integrated KT vs. Patient-oriented Research

## End-of-Grant (Project) KT

The research team develops and implements a plan for making potential research users aware of the knowledge that is gained from a project.

- Dissemination, +/- implementation
- Researcher-driven
- Typically, not planned early

# Participant Involvement in Research



# Types of Research Users

- Patients
- The "public" / specific community representatives
- Clinicians / health care practitioners
- Health care administrators
- Government employees / public policy makers or analysts / educators
- Representatives from non-government organizations / advocacy groups
- Research funders
- Industry
- Other researchers



# Pathway to Impact Resources

[About](#)[COVID-19](#)[News](#)[Resources](#)[Training & Events](#)[Take the Assessment](#)

KT Pathways >

## About KT Pathways

KT Pathways is an assessment tool for anyone who creates, uses or communicates research evidence. It is designed to help you assess your current knowledge translation (KT) skill level and to provide a framework for learning to support the use of research in practice, policy and further research.

[Create Account](#)[Already a member?  
Login](#)

**ktpathways.ca**

# Pathway to Impact Resources



CONTACT US



APPLYNET 

ABOUT

FUNDING

ENABLING RESEARCH

PARTNERSHIPS

NEWS & EVENTS

## Resource Library

Search through staff-developed and recommended external resources in our collection.

[healthresearchbc.ca/resource-library/](https://healthresearchbc.ca/resource-library/)

# Pathway to Impact Resources



## Pathway to Impact Resources

In addition to the resources below, Health Research BC's [Knowledge Translation, Patient-Oriented Research & Implementation Science Resources](#) guide provides examples by research theme of KT and Patient-Oriented Research as well as implementation science activities and resources to support development and implementation of your pathway to impact activities.

### Knowledge Translation

- [Health Research BC Knowledge Translation](#)
- [REACH BC](#)
- [A Guide to Researcher and Knowledge-User Collaboration in Health Research](#)
- [Moving into action: We know what practices we want to change, now what? An implementation guide for health care practitioners](#)

### Engaging with People with lived/living experience Partners and Patient Oriented Research

- [BC SUPPORT Unit Information for Researchers](#)
- [CIHR Patient Engagement Training course](#)
- [A Journey Through Public & Patient Engagement in Health Research: A Road Map](#)
- [BC SUPPORT Unit: How patient oriented is your research?](#)
- [Workbook to guide the development of a patient engagement in research \(PEIR\) plan](#)

# Partnerships Opportunities



# Partnership Opportunities

Health Research BC partners with leading organizations to grow BC's health research talent.

## Process:

- Applicants interested in being funded through a partnered award are encouraged to **Complete the Potential Co-Funding Partners tab in their Full Application in ApplyNet.**
- Additional partners will sometimes come on board during or after the full application phase and therefore listed only on our website. If you'd like to be considered for an award co-funded by any of these additional partners, please let us know by emailing [partnerships@healthresearchbc.ca](mailto:partnerships@healthresearchbc.ca)
- Health Research BC uses the details captured in your full application and **keywords** provided by partners to identify applications that may be relevant to and align with partners' area of interest.
- The full list of our partners and their co-funding interests can be found on our [website](#).



# 2022-2023 Co-Funding Partners



BRITISH COLUMBIA  
CENTRE ON  
**SUBSTANCE USE**

*Networking researchers, educators & care providers*

**Alzheimer Society**  
BRITISH COLUMBIA

Pacific Parkinson's  
**RESEARCH INSTITUTE**



Parkinson Society  
British Columbia



Cystic Fibrosis  
Fibrose kystique  
Canada



大鴻輝慈善基金  
TAI HUNG FAI  
CHARITABLE FOUNDATION



**CLEAR**

CANADIANS  
FOR LEADING  
EDGE ALZHEIMER  
RESEARCH



Lotte & John Hecht  
Memorial Foundation

**VGH+**  
**UBC**

hospital  
foundation



A REASON TO HOPE. THE MEANS TO COPE.  
BRITISH COLUMBIA SCHIZOPHRENIA SOCIETY

BC SCHIZOPHRENIA SOCIETY FOUNDATION  
SUPPORTING THE BC SCHIZOPHRENIA SOCIETY

Vancouver  
**CoastalHealth**

**Research Institute**



**STpaul's**  
FOUNDATION



# **Application and Review Process**

# Evaluation

## Evaluation Criteria

Applications to the respective themes will be assessed against the indicated criteria and weightings below. Evaluation criteria are the same for all four themes.

Criterion	Weighting
Applicant expertise and experience	30%
Research project	50%
Environment and support	20%



# Application Development Tips

- Seek support from your organization's **grant facilitation office** for development, editing, and revision of your application.
- Have your application critically reviewed by **colleagues**.
- Review the competition's **evaluation criteria** and make sure they are addressed in your application.
- Pay attention to **grantsmanship** — cohesive flow of information allows reviewers to read the application without having to flip back and forth between pages.
- Format the program of research to be easy to read. Use **headings** to show a logical progression and break up the text into **paragraphs**. Don't be afraid of white space.



# Application Development Tips

- Reviewers do not have the time to look up information on your behalf - if it is important, **make it explicit** in the application.
- If you have **pilot data**, mention it.
- You will have 4 additional pages for your appendices, which may include references, tables, charts, figures, and photographs, however if the data is important to your program of research, please include it within the main Program of Research document.
- If you were not able to capture important information about your activities and contributions in the CCV, you can add it to the **Most Significant Contributions** section.
- The sample application on our website provides some tips for the application.



# Health Research BC ApplyNet

Applications are submitted through our online grants management system  
<https://healthresearchbc.smartsimple.ca/>



## Login

Login

[Forgot Password?](#)

Learn more about our

[Privacy & Security policies](#)

New to the System?

[Register Here](#)

## Welcome to Health Research BC ApplyNet

Michael Smith Health Research BC is British Columbia's health research funding agency. All our funding competitions and peer review are run through ApplyNet.

After logging in, select the appropriate portal (researcher/reviewer/partner) from the top right dropdown menu.

Our Help Desk staff are standing by to answer your questions about ApplyNet. Hours are 8 a.m. to 4:30 p.m. Pacific Time, Monday to Friday (excluding holidays).

[helpdesk@healthresearchbc.ca](mailto:helpdesk@healthresearchbc.ca) | 604.714.6609 | 1.866.673.4722 (toll-free)

Resources and tutorials are available on [our website](#).

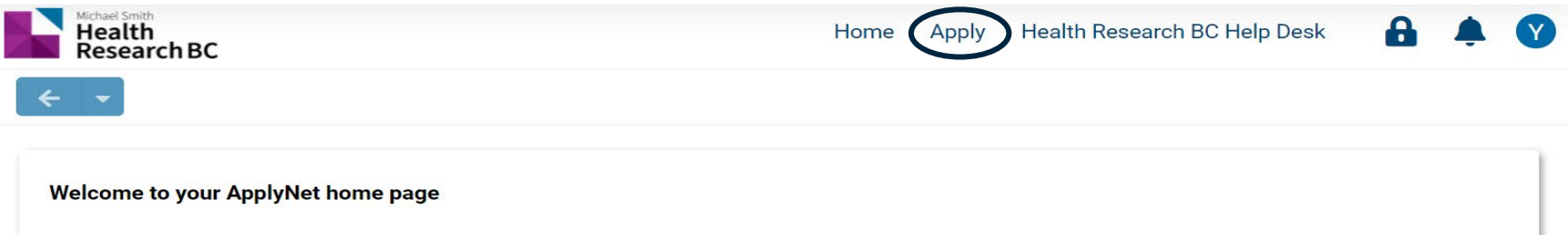
### Reminders:

- Historical grant information will remain accessible in the old [ApplyNet](#) system powered by Easygrants.

Note: ApplyNet is optimized for the most recent versions of Chrome, Firefox, Edge, and Safari. If you are experiencing problems while using Internet Explorer, we recommend trying another browser.

# Health Research BC ApplyNet

From the home page, click **Apply**.



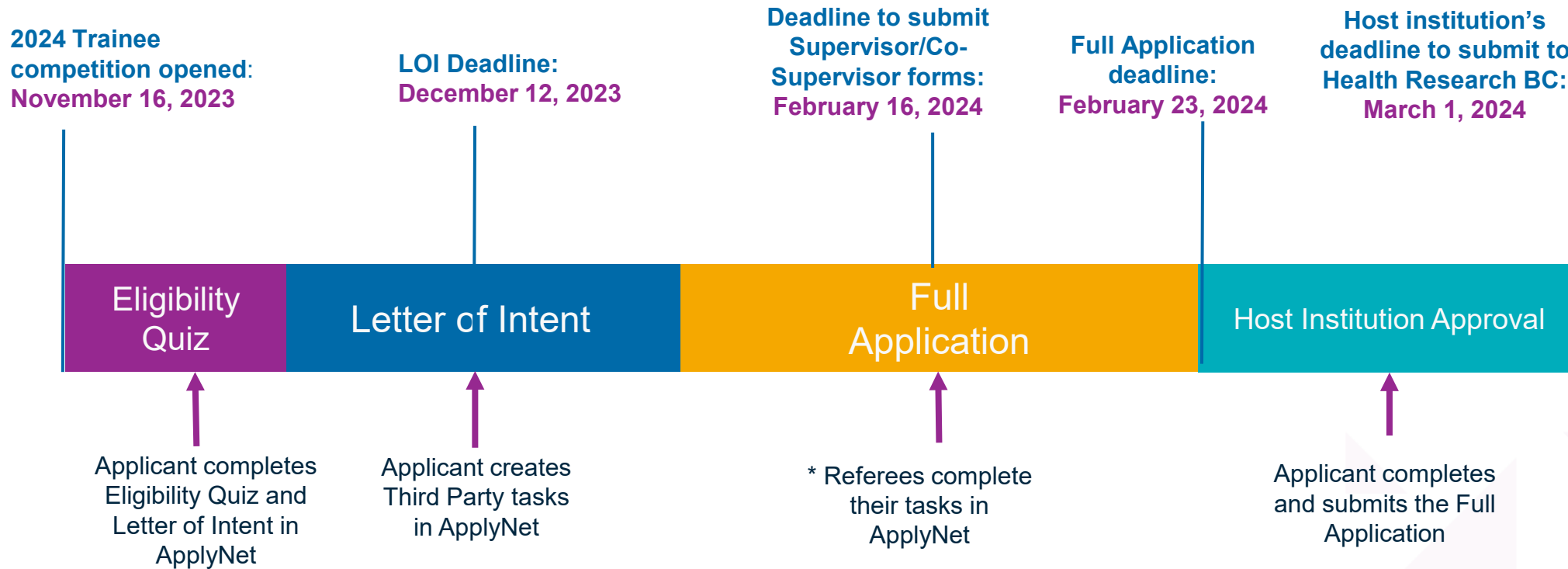
The next page will display a list of competitions available for application.

Open Competitions					+
					1-2 of 2 < >
Funding Cycle	Program Type	Award Type	Award Term	Deadline	
2022 Research Trainee	Research Trainee Program	Trainee Awards - Stipend and R&T Allowance	Up to Three Years	LOI Deadline: 12/06/2021 4:30 PM Full Application Deadline: 02/14/2022 4:30 PM	<b>View Details</b>
2022 Scholar Competition	Scholar Program	Career Awards	Five Years	LOI Deadline: 12/06/2021 4:30 PM Full Application Deadline: 01/31/2022 4:30 PM	<b>View Details</b>

Click **View Details** to see competition information and to launch an eligibility quiz. A successful completion of the quiz will open the Letter of Intent.



# Application Process Flow



\* **Third Parties:** Supervisor (and optional Co-Supervisor), at least 2 (max 3) referees

# Contact Info and key application dates

- For questions regarding the application and submission process, please contact:
  - **Asta Jureliaviciute**
  - Coordinator, Research Competitions
  - 604.714.2778
  - [trainee@healthresearchbc.ca](mailto:trainee@healthresearchbc.ca)
- For technical support with ApplyNet, please contact:
  - **Health Research BC Help Desk**
  - 604.714.6609
  - [helpdesk@healthresearchbc.ca](mailto:helpdesk@healthresearchbc.ca)

Stages in Competition Cycle	Date
<b>Letter of Intent Deadline</b>	December 12, 2023 4:30 p.m. PT
<b>Full Application Deadline</b>	February 23, 2024 4:30 p.m. PT
<b>Peer Review</b>	May – June 2024
<b>Funding Announcement</b>	August - September 2024
<b>Award Start Date</b>	September 1, 2024

# Thank you!

