



BRITISH COLUMBIA
CENTRE *for* EXCELLENCE
in HIV/AIDS

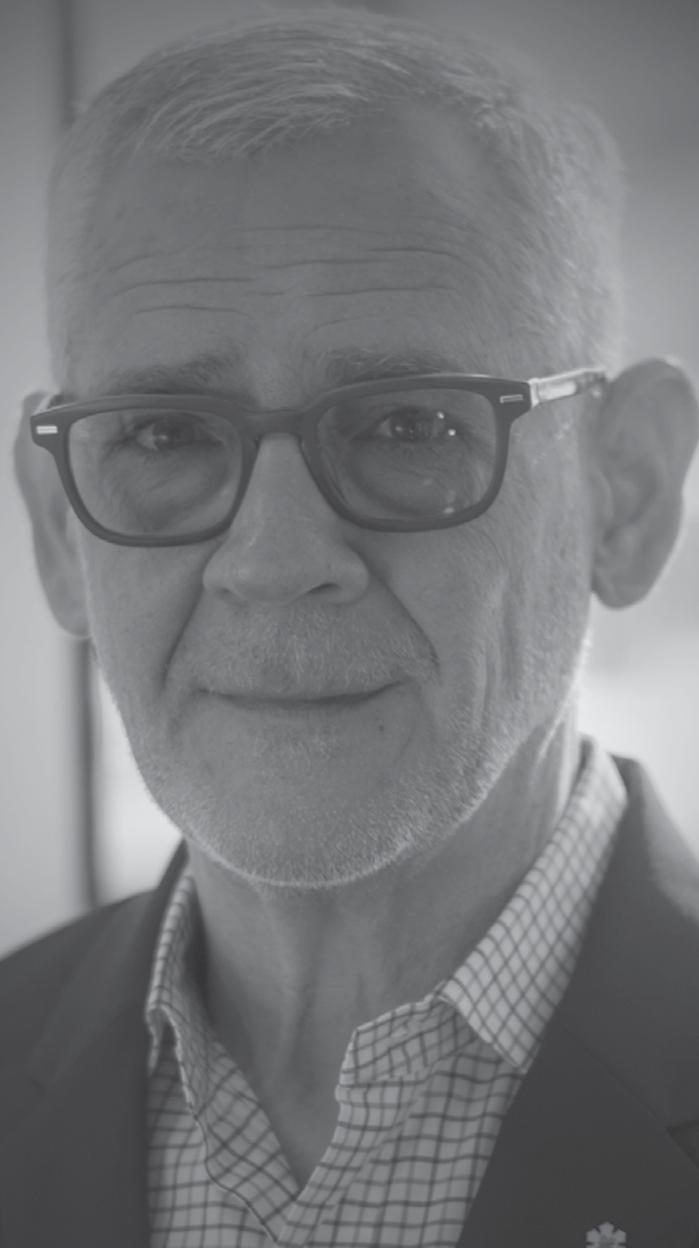


Providence
Health Care

BC CENTRE FOR EXCELLENCE IN HIV/AIDS

KEY OUTPUTS, RESEARCH, POLICY & INNOVATION

REPORTING PERIOD 2025 - Q1 | APRIL 1 - JUNE 30



“The Prime Minister has called for cost-effective, nation-building projects to improve the lives of Canadians and show leadership. Redoubling efforts to defeat HIV/AIDS in Canada by 2030 fits the bill. It saves lives, prevents disease progression, improves quality of life and saves money. We have a plan. We need the Prime Minister’s help to get it over the finish line.”

- DR. JULIO MONTANER, BC-CfE EXECUTIVE DIRECTOR & PHYSICIAN-IN-CHIEF
From the June 6th press release titled *“The BC Centre for Excellence in HIV/AIDS national Summit raises alarm about rising incidence of HIV in Canada and threats to global progress”*.

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Please Note: All data is presented to our best knowledge at time of report, and thus may not fully capture organizational research outputs.

GRANTS, AWARDS & FUNDING

BC-CfE 2025 QUARTERLY REPORT | Q1

Evan Barad

Canada Graduate Scholarships-Master's (CGS-M) Award

Project title: *Characterizing HIV Within-Host Diversity in Individuals Experiencing Persistent Low Level Viremia During Therapy*

\$27,000

Dr. Jeffrey Joy

Genome BC Grant

Project title: *Molecular Epidemiology to End HIV transmission in British Columbia and Canada*

\$500,000

Dr. Jeffrey Joy

Natural Sciences and Engineering Research Council of Canada Grant

Project Title: *High-throughput molecular screening, gene-expression assays, and genomic sequencing to assess pathogen impacts*

\$432,470

Rowan Patterson

Genome Sciences and Technology Summer Internship Award

Dr. Aniq Shahid

Governor General's Gold Convocation Medal 2025

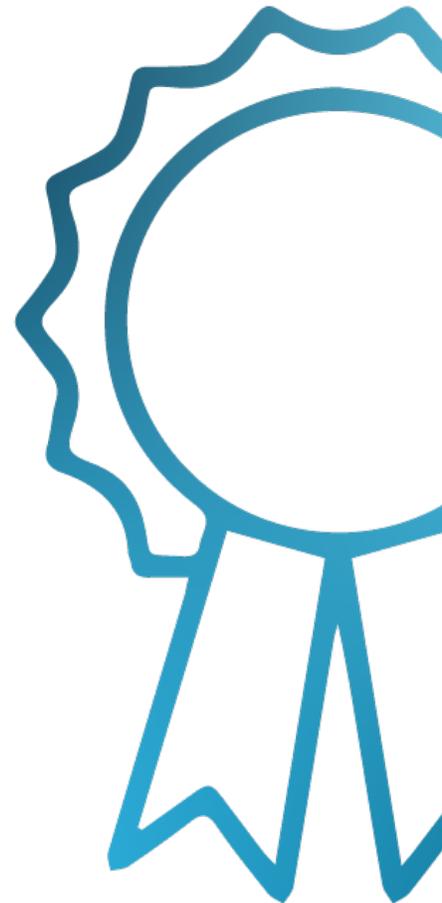
Simon Fraser University Faculty of Health Sciences

Dr. Aniq Shahid

Canadian Institutes of Health Research (CIHR) Post-Doctoral Fellowship

Project title: *Origins and consequences of Persistent Low-Level HIV Viremia During Antiretroviral Therapy*

\$70,000/year for three years.



PRESENTATIONS & EDUCATIONAL SESSIONS

BC-CfE Journal Clubs

Choice of antiretroviral therapy has minimal impact on weight gain

Sanam Javid
April 3, 2025

Does definition of rurality influence rural versus urban outcome disparities in HIV care in British Columbia?

Farnaz Azarmju
May 8, 2025

BC-CfE Learning Series

Trauma-Informed Care in Acute Care Settings

Alana Hirsh
April 16, 2025

Optimizing Preventive Care: A Checklist for Aging Well with HIV

Dr. Melanie Murray
May 21, 2025

BC-CfE Update

BC-CfE Spring 2025 Update: Focus on Syndemics

June 6, 2025

Moderators:

Drs. Val Montessori, Kate Salters, David Cook and Marianne Harris

Presenters:

Drs. Julio Montaner, Viviane Dias Lima, Junine Toy, Victor Leung, Naveed Janjua, Jeffrey Joy, Alnoor Ramji, Silvia Guillemi, Kate Salters, Anil Majaraj, and Yogeeta Dosanjh, Chase Fisher & Zoë Esseiva

Case Panellists:

Drs. Mark Hull, Victor Leung, Peter Phillips, Silvia Guillemi, Anil Majaraj, and Aaron Purdie, Zoë Esseiva & Chase Fisher.

External Presentations

National Treatment as Prevention Summit
June 5-6, 2025

Setting the Stage: TasP, the key to end HIV/AIDS
Dr. Julio Montaner

The use of mathematical modelling to inform public health interventions
Dr. Viviane Dias Lima

Evolving profile of new HIV treatment program enrollees in BC
Dr. Junine Toy

Phylogenetic insight into HIV transmission in BC & Canada
Dr. Jeffrey Joy

34th Canadian Conference on HIV/AIDS Research (CAHR 2025)
May 1-4, 2025

Oral Presentations

Substance Use Disorders and Related Hospitalizations and Mortality among Gay, Bisexual, and Other Men Who Have Sex with Men Compared to the General Male Population in Vancouver, Canada.
Santiago Aguilera

Non-suppressible HIV Viremia During Antiretroviral Therapy: Genetic Composition, Evolutionary Dynamics and Possible Cellular Sources

Evan Barad

IndigenEyes: An Ethnographic Journey Into The Spiritedness Of The HeART Guided By The Heart Of A Cree HIV Positive Woman On The Land

Claudette Cardinal

Doravirine Phenotypic Susceptibility and Plasma Viral Load Outcomes in Individuals with HIV Harboring One or More Commonly-Selected NNRTI Resistance Mutations

Dr. Peter Cheung

Changes in Sexual Behaviour Following HIV Pre-Exposure Prophylaxis Initiation Among Gay, Bisexual and Other Men Who Have Sex with Men in Canada's Three Largest Cities

Felipe Duailibe

Sociodemographic, Clinical, and Immunogenetic Factors Associated with HIV Reservoir Size and Total Proviral Burden

Maggie Duncan

Gay, Bisexual, and Other Men Who Have Sex With Men Living With HIV or Use Opioids Experience Higher Rates of Incident Psychosis Compared to HIV-Negative Men in The General Population.

Dr. Aki Gormezano

Is it Partner Number or Group Sex? STI Risk Among Urban Gay, Bisexual, and Other Men Who Have Sex with Men in Montreal, Toronto, and Vancouver: A Matched Comparison Analysis.

Dr. Aki Gormezano

Age-Related Chronic Disease-Free Life Expectancy Among Males and Females Living with HIV in British Columbia, Canada

Dr. Katherine Kooij

Hepatitis C therapeutic outcomes among people living with HIV: Examining effectiveness of early DAA era therapy in British Columbia.

Alex Korzuchowski

“Women need this space for themselves to feel safe:” a call for women’s-specific supports in an exploration of overdose risk among people living with and without HIV in Vancouver, BC.

Dr. Surita Parashar

HIV-Specific T-cell Responses and the Viral Reservoir in an Exceptional Elite Controller

Suji Udayakumar (on behalf of BC-CfE co-authors)

Factors associated with poor sleep quality among older adults living with HIV

Dr. Sharon Walmsley (on behalf of BC-CfE co-authors)

Incidence and Probable Causes of Non-suppressible Viremia during Antiretroviral Therapy in a Large Population-based Cohort of People Living with HIV

Fatima Yaseen

Poster Presentations

Examining Disparities in HIV Treatment Outcomes by Degree of Rurality and Metropolitan Influence in British Columbia, Canada: 2016 - 2023

Farnaz Azarmju

Elevated inflammatory genes associated with spontaneous HIV reactivation from latency

Dr. Mark Brockman

Sex Differences in Overdose-Related Hospitalizations Among People Living With HIV in Canada.

Dr. Michael Budu

Durability of COVID-19 vaccine immunogenicity in people living with HIV (CIHR Canadian HIV Trials Network 328)

Dr. Cecilia Costiniuk (on behalf of BC-CfE co-authors)

Acute complications during hospitalized nonfatal overdose are more likely among people with HIV than those without HIV, in British Columbia.

Ravnit Dhinsa

HIV and Drug Overdose: Perspectives on Risk and Care Access Among People Living with HIV in Vancouver, British Columbia

Silke Hansen

Approaching Tensions in Administrative Health Data Research: Creating Space for Co-production in Citizen Science HIV Research

Dr. Kathleen Inglis

Initiation of Opioid Agonist Therapy Within Seven Days Following a Nonfatal Opioid Poisoning Among People Living with HIV in British Columbia

Dr. Katherine Kooij

Healing and Harm Reduction: Indigenous-Led Approaches to Overdose Prevention and Care Within, By, and For Indigenous Peoples Living With and Without HIV

Melanie Medina

How COVID-19 Reshaped the Drug Economy and Drug Toxicity Crisis for People Living with and without HIV in Vancouver, British Columbia (BC)

Miriam Muirhead

Incidence of Reduced Renal Function and Associated Characteristics Amongst British Columbia's HIV Pre-Exposure Prophylaxis (PrEP) Program Participants on Emtricitabine-Tenofovir DF (FTC-TDF)

Rosie Murphy

New HIV Diagnoses Among Participants of British Columbia's Publicly-Funded HIV Pre-Exposure Prophylaxis Program

Rosie Murphy

The Use of Area-Based Measures of Socioeconomic Status in Studies Assessing Health Outcomes Among People Living with HIV in Canada and the United States: Scoping Review

Nicholas Naidu

Examining a method to classify deaths of an unknown cause as presumably drug-related, among people with HIV in British Columbia during the unregulated drug toxicity crisis.

Ly Nguyen

Barriers and Builders to Belonging: Insights from Community-based Organizations on Supporting Older People Living with HIV in Long-Term Care and Assisted Living in British Columbia's Fraser Health Region

Dr. Surita Parashar

A Cross-sectional Analysis of Antiretroviral Dosing in Chronic Kidney Disease Among People Living with HIV in British Columbia

Parisa Safavi

Emerging Challenges Posed by Demographic Shifts in New HIV Drug Treatment Program Enrollees in British Columbia

Shinta Thio

A review of validation Studies to ascertain conditions using Canadian electronic medical records: Highlighting an evidence gap for identifying people living with HIV, hepatitis C, and substance use disorders.

Jason Trigg

Other Presentations**HIV Post-Exposure Prophylaxis Program**

Presentation to Health Initiatives for Men (HIM)

Drs. Marianne Harris & Mark Hull, and Tina Ustad

April 2, 2025

Exploring small viral RNA-mediated epigenetic interference as an evolutionary driver in SARS-CoV-related viruses

EVO-WIBO

Dr Jeffrey Joy

April 4, 2025

HIV PrEP and PEP

Presentation to Foundry Langley Clinic

Drs. Marianne Harris & Mark Hull, and Erin Ready

April 10, 2025

Automating Evaluation of convergence in Bayesian phylogenetic inference with machine learning (Poster Presentation)

32nd Dynamics and Evolution of Human Viruses Conference

Guili Sucar

May 6, 2025

Zoonoses and Emerging Infections (Session Chair)

32nd Dynamics and Evolution of Human Viruses Conference

Dr. Jeffrey Joy

May 9, 2025

A Methodological Framework for Constructing Opioid Agonist Therapy in Administrative Health Data

Canadian Association for Health Services and Policy Research Conference

Kiana Yazdani

May 26, 2025

HIV surveillance in British Columbia

Presentation to University of Edinburgh and Edinburgh Public Health Scotland

Dr Jeffrey Joy

June 11, 2025

Ontario HIV Molecular Epidemiology

Presentation to Ontario Public Health Phylogenetics

Dr. Jeffrey Joy

June 11, 2025

Treatment as Prevention: The Key to end HIV/AIDS

25th Annual Healthcare Summit

Dr. Julio Montaner

June 23, 2025

Quarterly update on molecular epidemiology and phylogenetic monitoring of HIV in Saskatchewan

Presentation to the Saskatchewan Community of Practice for HIV Phylogenetic Monitoring Committee.

Dr Jeffrey Joy

June 23, 2025

PEER-REVIEWED JOURNAL ARTICLES & BOOK PUBLICATIONS

1: Guo M, Budu M, Trigg J, Shen T, Hogg R, Wiseman SM. Reassessing the association between HIV status and post-operative complications in the modern Era. *Am J Surg.* 2025 Jun 25;247:116498. doi: 10.1016/j.amjsurg.2025.116498. Epub ahead of print. PMID: 40618466.

2: Lima VD, Takeh BT, Faught N, Nathani H, Zhu J, Emerson S, Dolguikh K, Trigg J, Salters KA, Barrios R, Montaner JSG. Development and validation of a mortality risk prediction index score for adults living with HIV and multiple chronic comorbidities. *Int J Popul Data Sci.* 2025 Jun 10;10(2):2926. doi: 10.23889/ijpds.v10i2.2926. PMID: 40599222; PMCID: PMC12212411.

3: Azar P, Kim JJ, Azarmju F, Sirohi K, Machado J, Lau A, Siu J, Ignaszewski MJ, Montaner JSG, Krausz M. Pain Management Strategies for Patients Receiving Extended-Release Buprenorphine for Opioid Use Disorder: A Scoping Review. *Subst Use.* 2025 Jun 14;19:29768357251343612. doi: 10.1177/29768357251343612. PMID: 40529230; PMCID: PMC12171288.

4: Logie CH, Sokolovic N, Casale A, Kennedy VL, Underhill A, Cardinal C, Kaida A, de Pokomandy A, Loutfy M. Pathways from childhood abuse history to adulthood mental health among Women Living with HIV in Canada: longitudinal cohort findings. *J Acquir Immune Defic Syndr.* 2025 Jun 10. doi: 10.1097/QAI.0000000000003701. Epub ahead of print. PMID: 40493755.

5: Wallace HL, Wight J, Rzeszutek GJ, Jafri MS, Baz M, Dowding B, Flamand L, Hobman T, Jean F, Joy JB, Lang AS, MacParland S, McCormick C, Noyce R, Russell RS, Sagan SM, Snyman J, Bogoch II, Rasmussen AL, Rimoin AW, Kindrachuk J; Pan-Canadian Milk Study Network. No Evidence of Anti-Influenza Nucleoprotein Antibodies in Retail Milk from Across Canada (April-July 2024). *Viral Immunol.* 2025 Jul-Aug;38(6):228-233. doi: 10.1089/vim.2025.0029. Epub 2025 Jun 6. PMID: 40474813.

6: Omondi FH, Sang Y, Mwimanzi F, Cheung PK, Derza Z, Dong W, Barad E, Anderson K, Mysak V, Lima VD, Hull M, Brumme CJ, Harris M, Montaner JSG, Guillemi S, Brockman MA, Brumme ZL. Prolonged non-suppressible viremia sustained by a clonally expanded, genomically defective provirus with an immune-evasive HIV protein expression profile. *bioRxiv [Preprint].* 2025 May 16:2025.05.16.654538. doi: 10.1101/2025.05.16.654538. PMID: 40462973; PMCID: PMC12132533.

7: Sudderuddin H, Beelen CJ, Li J, Zhang W, Murray MCM, Lima VD, Montaner JSG, Brumme CJ. Clinical and sociodemographic correlates of emergent or evolving HIV drug resistance in low viral load specimens in British Columbia, Canada. *J Clin Virol.* 2025 Jun;178:105807. doi: 10.1016/j.jcv.2025.105807. Epub 2025 May 28. PMID: 40460587.

8: Joy R, Roessingh K, Meszaros K, Miscampbell A, Ritland C, Hayes M, Ivey

G, Petrula M, Joy JB. Deciphering Cryptic Population Structure in Western Sandhill Crane Subspecies (*Antigone canadensis*) of the Pacific Flyway. *Ecol Evol.* 2025 May 28;15(6):e71475. doi: 10.1002/ece3.71475. PMID: 40454224; PMCID: PMC12119177.

9: Duailibe F, Shen T, Zhang W, Moore D, Hull M, Barath J, Magee C, Lachowsky N, Hart T, Cox J, Grace D, Lambert G, Skakoon-Sparling S, Jollimore J, Dvorakova M, Gormezano A, Lima VD. Identifying Syndemic Factors and Their Effect on HIV Sexual Risk Behavior Among Gay, Bisexual and Other Men Who Have Sex with Men in Vancouver, Montreal and Toronto. *AIDS Behav.* 2025 May 23. doi: 10.1007/s10461-025-04769-w. Epub ahead of print. PMID: 40405027.

10: Leung V, Toy J, Phillips P, Montaner JSG. Doxycycline postexposure prophylaxis to prevent bacterial sexually transmitted infections. *CMAJ.* 2025 May 19;197(19):E534-E535. doi: 10.1503/cmaj.250128. PMID: 40393712; PMCID: PMC12109089.

11: Cunningham NE, Pierzchalski J, Smiley S, Eisen J. Discharge with insufficient or inappropriate care in Canada's EDs: overcoming the challenges for people who use drugs. *CJEM.* 2025 May 20. doi: 10.1007/s43678-025-00944-z. Epub ahead of print. PMID: 40392504.

12: Sohail DK, Keller MD, Hanley PJ, Hoq F, Kukadiya D, Datar A, Reynolds E, Copertino DC, Lazarski C, McCann CD, Tanna J, Shibli A, Lang H, Zhang A, Chansky PA, Motta C, Huynh TT, Dwyer B, Wilson A, Lynch R, Mota TM, Conce Alberto WD, Brumme ZL, Kinloch NN, Cruz CRY, MacLaren Ehui L, Henn S, Brad Jones R, Bollard CM. Autologous HIV-specific T cell therapy targeting conserved epitopes is well-tolerated in six adults with HIV: an open-label, single-arm phase 1 study. *Nat Commun.* 2025 May 15;16(1):4510.

doi: 10.1038/s41467-025-59810-2. PMID: 40374689; PMCID: PMC12081906.

13: Sudderuddin H, Dang Z, Watson B, Atkinson K, Le A, Sereda P, Brumme ZL, Brumme CJ. Investigation of Integrase Inhibitor Resistance Mutations in gp41 in Clinical Samples. *J Acquir Immune Defic Syndr.* 2025 May 13. doi: 10.1097/QAI.0000000000003694. Epub ahead of print. PMID: 40358920.

14: Samlall N, Reddy T, Ismail N, Brockman MA, Brumme ZL, Ndung'u T, Mann JK. Genetic determinants of HIV-1 subtype C Nef-mediated SERINC3 down-regulation. *Virology.* 2025 Apr 8;22(1):94. doi: 10.1186/s12985-025-02705-x. PMID: 40200291; PMCID: PMC11977927.

15: Pakhomova TE, Parry R, Wesseling T, Moore DM, Cardinal C, Dawydiuk N, Nicholson V, Tam C, Parashar S, Hogg R, Barrios R, Montaner JSG, Salters K. Healthcare Provider Strategies and Approaches to Supporting People Living With HIV Who Are Experiencing HIV Treatment Disengagement in British Columbia, Canada. *Qual Health Res.* 2025 Apr 1:10497323251318218. doi: 10.1177/10497323251318218. Epub ahead of print. PMID: 40170323.



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