Infectious Diseases Research Challenge Area (RCA)

Research description:

• Infectious diseases account for ~20% of deaths worldwide
  • Children, poorer communities, and undeserved populations are disproportionately affected in Canada and globally

• Our RCA aims to work across disciplines to understand and develop comprehensive strategies to reduce the impact of infectious diseases on human health

• Our collaborative and multidisciplinary research faculty provides a unique and increasingly important training environment for studies of infectious diseases, allowing cross-pollination of diverse ideas that can challenge and shape individual approaches to solving difficult problems based on social, behavioural, biomedical and policy perspectives.

• Major focus → HIV/AIDS (SFU Interdisciplinary Research Centre on HIV; SIRCH)
  • HIV is a preventable and treatable viral infection that remains a global health priority.
  • FHS-based projects incorporate overlapping areas of research interest and expertise.
    • Lab-based approaches — including cell biology, virology and immunology.
    • Social/behavioural approaches – including population health, epidemiology, and medical ethics.
ID RCA Faculty Members

- **Mark Brockman:** Virology, T-cell immunology, pathogenesis, HIV vaccines & immune-based therapies
- **Zabrina Brumme:** Molecular epidemiology, HIV/AIDS, immunology, genetics
- **Maya Gislason:** Social and health inequalities, social-ecological public health, participatory methods, Indigenous health
- **Shira Goldenberg:** Global health, migration and health, HIV, sexual health
- **Robert Hogg:** HIV, antiretroviral therapy, marginalized populations, population health, demography
- **Angela Kaida:** Global health, epidemiology, HIV & sexual/reproductive health, antiretroviral therapy
- **Masahiro Niikura:** Virology, Marek’s disease virus (MDV), recombineering, vaccine research
- **Bohdan Nosyk:** Economic evaluation and mathematical modelling; substance abuse; HIV; illicit drug dependence and treatment
- **Ralph Pantophlet:** Molecular biology, infectious diseases immunology, antiviral antibody responses, HIV/AIDS
- **Ian Tietjen:** Mechanisms of viral pathogenesis and antiviral discovery
- **Nienke van Houten:** Microbiology, immunology & vaccine design, infectious disease, host/pathogen interaction

**Selected External Partners**
- St Paul’s Hospital; BC Centre for Excellence in HIV & AIDS; Centre for Gender & Sexual Health Equity

**Selected Funding Sources**
- CIHR; NSERC; SSHRC; NIH (USA)
SIRCH brings together diverse faculty, students, community partners and community investigators to build and expand multidisciplinary programs that address four major themes:

1. **Clinical research**, particularly related to highly-active anti-retroviral therapy (HAART) and its associated outcomes (i.e. impact of long-term HAART and aging-related co-morbidities)

2. **Biomedical research**, with an emphasis on HIV vaccine design to prevent, control and cure HIV/AIDS,

3. **Access to and quality of health services** for individuals living with HIV, specifically how different supportive service models of care impact survival and HAART uptake, adherence, and retention,

4. **HIV among key affected populations**, specifically looking at outcomes among vulnerable or hard-to-reach populations (i.e. persons of Aboriginal ancestry, people who inject drugs, youth, women, and men who have sex with men)

All research themes are guided by the vision of **community-engaged HIV research**, which focuses on the process of linking research, practice, policy and the lived experience of people living with HIV to improve the health and well being of individuals and communities affected by HIV.

[http://www.sfu.ca/hivresearchcentre.html](http://www.sfu.ca/hivresearchcentre.html)
SIRCH Faculty

Co-Directors:
- Dr. Mark Brockman, Associate Professor and Canada Research Chair in Viral Pathogenesis and Immunity
- Dr. Angela Kaida, Associate Professor and Canada Research Chair in Global Perspectives in HIV and Sexual and Reproductive Health

Members:
- Dr. Zabrina Brumme, Professor and Laboratory Director, BC Centre for Excellence in HIV/AIDS
- Dr. Kora DeBeck, Assistant Professor, School of Public Policy, Simon Fraser University; Research Scientist, BC Centre on Substance Use
- Dr. Shira Goldenberg, Assistant Professor, Faculty of Health Sciences; Research Scientist, Centre for Gender & Sexual Health
- Dr. Robert Hogg (Founder), Professor and Senior Scientist, BC Centre for Excellence in HIV/AIDS
- Dr. Bohdan Nosyk, Associate Professor and St. Paul's Hospital CANFAR Chair in HIV/AIDS Research
- Dr. Ralph Pantophlet, Associate Professor
- Dr. Surita Parashar, Adjunct Professor and Research Scientist, BC Centre for Excellence in HIV/AIDS
- Dr. Hasina Samji, Assistant Professor
- Dr. Jamie K Scott, Professor Emeritus
- Dr. William Small, Assistant Professor and Director, Centre for Applied Research in Mental Health (CARMA)
- Dr. Malcolm Steinberg, Clinical Assistant Professor; Chair MPH Program
- Dr. Krisztina Vasarhelyi, Adjunct Professor, IMPACT-HIV Group (IRMACS)
HSCI 891 Special Topics in Global Health:
Experiential Global Health Learning in South Africa
Summer Intersession 2020 – Intensive Format  Proposed dates (TBD): May 4-14, 2020
Thematic focus: Inter-disciplinary approaches to understanding the global burden of HIV and health inequities among youth in sub-Saharan Africa