



**2021 CENTRES AND
INSTITUTES
EXECUTIVE SUMMARY**

CENTRES AND INSTITUTES



OVER 60 RESEARCH CENTRES AND INSTITUTES CONTRIBUTE TO SFU'S POSITION AMONG CANADA'S TOP UNIVERSITIES IN RESEARCH IMPACT

SIMON FRASER UNIVERSITY'S OFFICE OF THE VICE-PRESIDENT, RESEARCH AND INTERNATIONAL PROMOTES WIDE-REACHING COLLABORATIONS AT THE LOCAL, NATIONAL AND INTERNATIONAL LEVELS, TO FOSTER A CONTINUUM OF KNOWLEDGE GENERATION AND KNOWLEDGE TRANSFER ACROSS DIVERSE SECTORS.

At SFU, much of the work undertaken by research centres and research institutes supports the bringing together of diverse perspectives to confront key scientific and global challenges. Aligned with university and faculty strategic priorities, centres and institutes foster creative interaction and stimulate engagement with students and visiting scholars.

In 2021, the COVID-19 pandemic continued to affect research projects, seminars, in-person presentations and activities at the university and globally. The pandemic has inhibited research activities in some fields, while creating opportunities in others. Despite this ongoing uncertainty SFU's research centres and institutes were able to adapt and continue their research and engagement projects where possible.

RESEARCH CENTRES

Research centres are formally designated, non-departmental units facilitating collaborative research mainly within a single faculty. The activities of a research centre support the research mission of its home faculty and require the support of its dean.

Research centres may include in their membership SFU researchers from outside of their home faculties.

RESEARCH INSTITUTES

Research institutes are formally designated non-departmental units facilitating extensive multi-faculty collaborative research, often enhanced by research relationships with other universities and/or other stakeholders (e.g., government, community or private sector affiliates) or by shared resources and infrastructure. The activities of research institutes support the strategic research mission of the university.

Prior to applying for research institute status, members of institutes often have a history of collaborative activity as a group (e.g., co-supervision of students, co-publications, or shared research data, funding and/or projects).

In this summary we discuss the work of select research centres and research institutes at SFU in 2021. See the attached appendix for the full list of centres and institutes.



CENTRES AND INSTITUTES

ENGAGING FOR GOOD

INDIGENOUS RESEARCH INSTITUTE

The Indigenous Research Institute (IRI) continues to run established successful activities such as the IRI Lecture Series, which is supported by the Office of Aboriginal Peoples. Ethics policy-oriented discussions and recommendations with SFU Office of Research Ethics staff were held from April 2020-March 2021. Members and professors Vicki Kelly, George Nicholas, Malcolm Steinberg and Kelly Bannister provided key perspectives in the re-visioning and revising of Indigenous related elements of the SFU Research Ethics review system as it transitioned to an online platform in November 2020.

Kelly and Bannister continued the development of an Indigenous Ethics set of Guidances for working with Indigenous communities now being used by the Canadian Mountain Network and other institutions and organizations. They also participated in a circle discussion on Indigenous Ethics “Reconciling Ways of Knowing” focused on Indigenous ethics in relationship to Indigenous knowledge.

CENTRE FOR IMAGINATION IN RESEARCH, CULTURE AND EDUCATION | FACULTY OF EDUCATION

Throughout the 2020-2021 academic year, director Mark Fettes led weekly meetings of a research team for a SSHRC Partnership Development Grant on Gabriola Island, BC. This community-based project involves the island’s elementary school and a range of local organizations and focuses on building knowledge and relationships with the Snuneymuxw First Nation community on whose traditional territory Gabriola Island is situated.

Despite COVID-19 and civil unrest in Chile, CIRCE offered a three-day online seminar for more than 80 Chilean teachers and Master’s students in January 2021 in partnership with Universidad Finis Terrae in Santiago.

CIRCE Academic Council member Michael Datura led multiple professional development workshops on the Walking Curriculum for B.C. schools over the 2020-2021 school year. The curriculum provides easy-to-use, child-centred and developmentally appropriate activities that encourage outdoor learning. The annual Walking Curriculum Challenge saw a tenfold increase in registrants, drawing over 800 teachers across B.C. and beyond.

CIRCE Steering Committee members Sean Blenkinsop and Mark Fettes received a SSHRC Knowledge Synthesis grant in March 2020 to review and report on education for living within Earth’s carrying capacity, and completed their report in May 2021.

CENTRES AND INSTITUTES



INNOVATION FOR GOOD

CENTRE FOR CELL BIOLOGY, DEVELOPMENT AND DISEASE | FACULTY OF SCIENCE

The Centre for Cell Biology, Development and Disease (C2D2) is an interdisciplinary research unit that promotes cell and developmental biology research and education as it relates to health and disease. The research of the centre encompasses an array of biomedical research areas including cell and developmental biology of plants and animals, host-pathogen interactions, microbiology, molecular physiology, neurobiology and toxicology.

C2D2 recently welcomed as members two new stem cell scientists who are also new Tier II Canada Research Chairs: Lisa Julian is the Canada Research Chair in Developmental Origins of Stem Cell Fate and has joined the Department of Biological Sciences; and Lorena Braid, the Canada Research Chair in Mesenchymal Stromal Cell Biology, has joined the Department of Molecular Biology and Biochemistry. C2D2 funding successes include six NSERC Discovery Grants totaling over \$1M and a CIHR Operating Grant for COVID-19 diagnostics led by Peter Unrau and Masahiro Niikura, totaling \$516,980. C2D2 held its 4th annual Symposium in May 2021. The event hosted 75 attendees, allowing C2D2 trainees to showcase their work to a broad audience of researchers.

CENTRE FOR CORPORATE GOVERNANCE AND SUSTAINABILITY | BEEDIE SCHOOL OF BUSINESS

The Centre for Corporate Governance and Sustainability's (CCGS) mandate is to provide innovative, rigorous, practical and relevant research on corporate governance and sustainability, focusing on how global companies navigate changing governance obligations including the need to address environmental and social obligations.

CCGS has had a successful year advancing applied research, knowledge dissemination, and community engagement and outreach. The Embedding Project, a global sustainability initiative founded and led by director Stephanie Bertels, held a series of nine webinars for its global peer-to-peer network of 25 companies. CCGS also co-hosted an interactive workshop on supply chain sustainability with the Cambridge Judge Business School and hosted two webinars with the World Business Council for Sustainable Development.



CENTRES AND INSTITUTES

COOPERATIVE RESOURCE MANAGEMENT INSTITUTE | FACULTY OF ENVIRONMENT

The Cooperative Resource Management Institute (CRMI) aims to link academic and government scientists to further effective natural resource management.

In 2020-2021 CRMI helped enable several major grants, including: director Jonathan Moore receiving \$300,000 for “Cumulative Effects in Salmon Watersheds” and \$250,000 for “Sockeye Salmon Genetic Tools to Inform Sustainable Fisheries and Rebuild At-Risk Populations”; and David Patterson receiving \$275,000, “Understanding the Impact of the Big Bar Slide on salmon survival and relevance to management of Sockeye, Chinook, Coho and Pink salmon in the Fraser River.” The latter led to a \$1.8M B.C. Salmon Restoration Innovation Fund grant with Moore and SFU colleagues Jeremy Venditti and Shawn Chartrand. These projects all connect agencies to SFU scientists and provide graduate training and research opportunities.



CENTRES AND INSTITUTES

RESEARCH FOR GOOD

HIV/AIDS RESEARCH CENTRE | FACULTY OF HEALTH SCIENCES

The vision of the HIV/AIDS Research Centre (HRC) is to develop strategies for the prevention of HIV/AIDS, to improve the health and well-being of people living with and affected by HIV and to engage with the public—both domestically and internationally—through HIV/AIDS research, education and dialogue.

In 2020, HRC members contributed to 76 peer-reviewed manuscripts in respected academic journals. Members of the Centre also contributed meaningfully to the academic and public health response to COVID-19 which, like HIV, is caused by a viral infection. A study led by Kaida and Hogg and published in *AIDS*, linked severe intimate partner violence with all-cause mortality among women living with HIV; an economic modeling study conducted by Nosik and published in *Lancet HIV* identified an optimal combination of interventions to reduce HIV transmission; and reports published in *PLoS Pathogens* and *Journal of Virology* by Mark Brockman and Zabrina Brumme described variations among global HIV strains that may contribute to differences in pathogenesis.

Funding highlights include: a COVID-19 Immunity Task Force grant awarded to Brumme, Brockman as well as Marc Romney of Providence Health Care for their study “Integrating longitudinal epidemiologic, virologic and immunologic analyses to understand COVID-19 immunity and infection outcomes in long term care” (\$1,199,680); an Indigenous COVID-19 Rapid Research Funding grant awarded to Travis Salway, co-lead of “Kloshe Tillicum: Creating trustworthy and culturally meaningful public health guidance to address COVID-19 in Indigenous communities” (\$96,692); a CIHR Project Grant awarded to members Kanna Hayashi and Kora DeBeck on “Investigating the unique experiences and needs of youth and young adults who use drugs during the dual crises of overdose and COVID-19” (\$759,035); and CANARIE – Research Data and Management Grant awarded to Mark Brockman for “iReceptor: Towards single-cell analysis of adaptive immune receptor repertoires” (\$494,275). Former centre director Robert Hogg received the Warren Gill Award for Community Impact in 2020.

CENTRES AND INSTITUTES



DATA FOR GOOD

GERONTOLOGY RESEARCH CENTRE | FACULTY OF ARTS AND SOCIAL SCIENCES

The Gerontology Research Centre (GRC) promotes and conducts innovative interdisciplinary research on topics relating to individual and population aging and provides research and consultation services to the academic community, government, public and private organizations.

Members of the GRC have received \$4.6M of grants in the areas of health behaviours, mental health, technology and resilience specific to COVID-19, based on national and international collaborations. The centre continues to house and run two labs that support data collection associated with the 20-year (2012–2032) Canadian Longitudinal Study on Aging with over 51,000 participants.

CENTRE FOR EDUCATION RESEARCH AND POLICY

The Centre for Education Research and Policy (CERP) coordinates the activities of a group of researchers interested in issues related to education policy in British Columbia. Members use quantitative analysis to investigate the consequences of policies that affect assessment and accountability, school and program choice and funding levels, and the effects of these policies on ethnic and socioeconomic segregation and on children's social and emotional development.

This year CERP received approval from Statistics Canada and the Canadian Research Data Centre Network to launch a new research program in partnership with the B.C. Ministry of Education which provides researchers with world-class student-level data that will allow them to investigate the long-term consequences of education policy decisions.

CERP also signed a research collaboration agreement with the B.C. Ministry of Education to document the effects of the COVID-19 pandemic on the mental health of children in the K-12 education system, and to investigate how in-school versus remote learning may have mediated these effects. This project will use student-level data linked to health records, including prescription medication and doctor's visits.

**RESEARCH AT SFU SPANS EIGHT
FACULTIES, COVERING A BROAD RANGE
OF FUNDAMENTAL, INTERDISCIPLINARY
AND APPLIED RESEARCH TOPICS**

APPENDIX

RESEARCH CENTRES

Bill Reid Centre for Northwest Coast Art Studies
Centre d'études francophones Québec-Pacifique
Centre for Applied Research in Mental Health and Addiction
Centre for Cell Biology, Development and Disease
Centre for Comparative Muslim Studies
Centre for Corporate Governance and Sustainability
Centre for Education, Law and Society
Centre for Experimental and Constructive Mathematics
Centre for Forensic Research
Centre for Global Political Economy
Centre for Global Workforce Strategy
Centre for High-Throughput Chemical Biology
Centre for Imagination in Research, Culture & Education
Centre for Natural Hazards Research
Centre for Policy Research on Science and Technology
Centre for Public Policy Research
Centre for Research on Early Child Health and Education
Centre for Research on International Education
Centre for Restorative Justice
Centre for Scottish Studies
Centre for Sustainable Development
Centre for the Study of Educational Leadership and Policy
Centre for Tourism Policy and Research
Centre for Wildlife Ecology
Charles Chang Institute for Entrepreneurship
Children's Health Policy Centre
Cooperative Resource Management Institute
David Lam Centre for International Communication
David Wheeler Institute for Research in Mathematics Education
Evolutionary and Behavioural Ecology Research Group
First Nations Language Centre
Gerontology Research Centre
HIV/AIDS Research Centre
Institute for the Humanities
Jack Austin Centre for Asia Pacific Studies
Mental Health, Law and Policy Institute
Pacific Water Research Centre
Stavros Niarchos Foundation Centre for Hellenic Studies
The SFU Morgan Centre for Labour Research

RESEARCH INSTITUTES

Behavioural and Cognitive Neuroscience Institute
Canadian Institute for Studies in Publishing
Centre for Education Research and Policy
Centre for Operations Research and Decision Sciences
Centre for Studies in Print and Media Cultures
Chronic Pain Research Institute
Digital Democracies Institute
Indigenous Research Institute
Institute for Diaspora Research and Engagement
Institute for Environmental Learning
Institute for Performance Studies
Institute for the Reduction of Youth Violence
Institute for Transpacific Cultural Research
Institute on Violence, Terrorism, and Security
International Centre for Criminal Law Reform & Criminal Justice Policy
International Cybercrime Research Centre
Pacific Institute for the Mathematical Sciences
Science and Technology for Aging Research Institute
Vancouver Institute for Visual Analytics
Western Canadian Universities Marine Sciences Society (Bamfield)

In addition to the above, the following research initiatives are associated with the university.

BC SUPPORT Unit Fraser Centre
Business Administration Research Initiatives
Canadian Statistical Sciences Institute
Educational Neuroscience Laboratory (Engrammetron)
FREDA Centre for Research on Violence Against Women and Children
Imaginative Education Research Group
Institute for the Study of Teaching and Learning in the Disciplines
Metropolis British Columbia, Centre of Excellence for Research on Immigration and Diversity
Pacific Institute for Climate Solutions
Social Attention Research Group (SARG)
TRIUMF