



STRATEGIC PLAN

for RESEARCH *and* CREATIVE WORKS

2019-2025





INTRODUCTION

St. Francis Xavier University (StFX) is one of Canada's leading undergraduate universities with a longstanding tradition of academic excellence in teaching, research and service to society. It brings together over 4500 students for studies in arts, sciences, business, education and applied professional programs. StFX is well-known for its strong traditions of social engagement and service.

Although its focus is on undergraduate education, StFX offers several graduate programs at the Masters level, as well as a joint PhD in Education Studies delivered in partnership with Acadia University and Mount Saint Vincent University. Furthermore, in 2016 StFX signed a Memorandum of Understanding with Memorial University of Newfoundland to facilitate collaboration in PhD studies to better support research efforts of faculty members and provide increased opportunities for graduate students to remain at StFX.

StFX has an established tradition of research and creative works across all areas of the University's academic reach, covering a range of disciplinary and inter-disciplinary fields in the humanities and social sciences; natural, physical, and engineering sciences, management sciences, and health sciences, as well as in areas such as fine arts, music, and drama.

StFX faculty employ a wide variety of approaches to research and creative work, and the University remains open and committed to supporting all forms of research and creative endeavor that serve its academic teaching, scholarly, and service missions. StFX is also committed to an integrated model of teaching and research within a primarily undergraduate academic environment. StFX faculty members integrate research into teaching curricula, engage in the scholarship of teaching and pedagogical development, and guide students to become high-quality researchers or artists in their own right.



PURPOSE

The purpose of the Strategic Plan for Research and Creative Works (2019-2025) is to outline issues and areas that will be the focus of efforts over the next five years at StFX. As such it identifies key objectives and action items that aim to increase the capacity for research and creative success at StFX. A core principle of this Plan is that the full breadth of diverse research and creative interests at StFX will be valued and supported. It acknowledges the significance of individual and discipline-specific research and creative scholarship, as well as collaborative and interdisciplinary research and creative efforts. It recognizes the integral role of research to student education and experience. Finally, a key guiding principle underlying this Plan is the conviction that opportunities to associate research and creative works with teaching and social or community needs constitutes an institutional strength and responsibility.

Discussions with faculty and students throughout 2018 and in Winter 2019 provided input on the development of this Plan. The new StFX Strategic Plan for Research and Creative Works is also guided by StFX University Strategic Plan (2017-2022), as well as individual Faculty Strategic Plans that have been produced over the past several years. Finally, it is responsive to key issues that all Canadian universities must collectively address in efforts to collectively improve their academic research environments and remain eligible to receive external research funding. The StFX Research Advisory Committee has helped guide the renewal process and has played a lead role in identifying issues requiring attention, as well as providing feedback on draft versions of this document.

RESEARCH MISSION & VISION

Participation in the generation of new knowledge and creative works is one of the distinguishing features of all modern universities.

Mission

StFX is committed to the pursuit of research and creative works that contribute to academic scholarship and teaching, the discovery and dissemination of new knowledge, student experience, community and social impact, and the development of future leaders.

Vision

In undertaking these efforts, StFX will be a leader among Canada's undergraduate universities for its research and creative contributions to academic scholarship, student experience, community collaboration and social responsibility.

Strengthening Equity, Diversity and Inclusion within the StFX Academic Research Environment.

A guiding principle underlying the pursuit of our research mission and vision, as well as the goals of this plan is the need to strengthen efforts related to equity, diversity and inclusion within and across the StFX academic research environment. This effort starts with increasing the awareness, sensitivity and cultural competencies of StFX faculty, staff and administration with respect to equity, diversity, and inclusion in the StFX research environment. We will also work to improve the understanding and valuing of scholarship or research that is non-traditional or unconventional, outside mainstream disciplinary norms, or focused on issues of gender, race or minority status.

Over the next five years of this plan, StFX will direct priority attention to expanding the diversity and inclusiveness of its research community by: undertaking data collection and analysis related to equity, diversity and inclusion; reviewing employment system practices; addressing and/or removing internal barriers to equity, diversity, and inclusion in academic research-related hiring, promotion, and career progression at StFX; developing employment policies in support of a more equitable academic research environment at StFX; and strengthening professional development and training to enhance awareness, sensitivity, and cultural competencies related to equity, diversity and inclusion in the StFX academic research environment.

GOALS

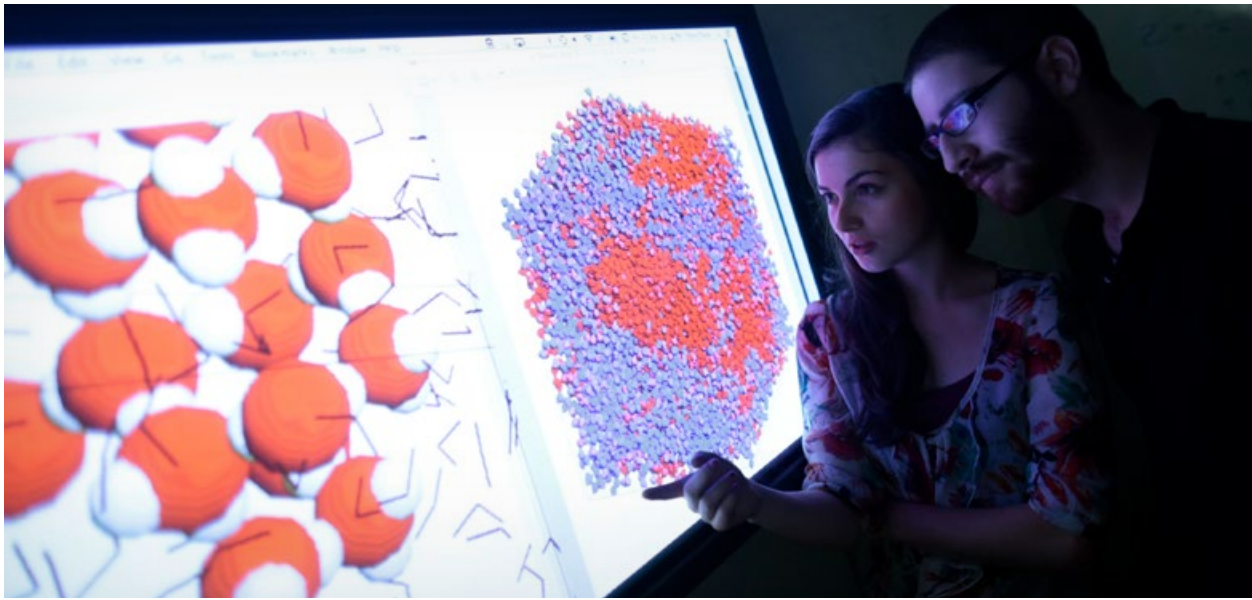
University research efforts comprise diverse individual and collaborative faculty research, creative and scholarly interests and activities. Some research or creative programs require specialized performance, creation, and laboratory spaces and equipment; others require access to field locations nearby or far away; many require access to specific information or archival resources. Our researchers and artists include tenured and tenure-track faculty members, librarians and archivists, staff within the Coady Institute, Extension Department and externally-funded centres such as the National Collaborating Centre for the Determinants of Health, limited-term and part-time faculty members, and professional staff. Regardless of the discipline, subject matter, and resource requirements, all research and creative works at StFX make valuable contributions to our collective knowledge and academic efforts.

The key over-riding goal for the 2019-2025 Strategic Plan for Research and Creative Works is to continue to **advance a culture of faculty success and student involvement in research and creative works at StFX**. This over-riding goal is aligned directly with the StFX University Strategic Plan (2017-2022).

Currently, StFX provides several forms of **direct** and **indirect** support for research and creative works, which include:

- University Research Publication and Teaching Awards (URPTA)
- University Council for Research (UCR) Faculty Grants and Student Research Awards
- Salary-based Research Grants (for use during sabbatical)
- Conference travel support
- Full and half-year sabbaticals for faculty and librarians.
- Summer research awards for students
- Graduate scholarships and teaching assistant awards
- Institutional support for Canada Research Chairs
- University-wide software licenses to support research surveys
- Research grant facilitation and administration services
- Support for Library Research Resources, the Animal Care Facility, Research Ethics Board, Machine and Electronics Shops, a Microscopy Centre, the University Art Gallery, the Bauer Theatre, music performance spaces, and a newly created Geospatial Data Resource Centre

Current endowments support research with targeted funding for visiting research fellows, internal research chairs (provision of teaching release), faculty research grants, student research and research conference travel support, research equipment purchases, and faculty research grants. Each year at Spring Convocation, StFX recognizes a faculty research leader with either the University or President's Research Award.



Over the next five-year period, the following priority goals will be pursued:

- To strengthen efforts related to equity, diversity and inclusion within and across the StFX academic research environment.
- To better support faculty researchers at all stages of their professional lifecycle with additional time and funding for research and creative works.
- To improve support for newly appointed faculty members with the establishment of their research and creative efforts.
- To strengthen efforts aimed at attracting increased external funding from granting programs, government agencies, communities, NGOs, industry and foundations for all types of research and creative works at StFX.
- To increase the number and diversity of undergraduate students involved in research and to make research a more integral part of the StFX undergraduate student experience.
- To strengthen internal and external research collaborations and to increase the profile of research through the further development of StFX research institutes and research centres.
- To strengthen research-related collaborations involving the Coady Institute, the Extension Department, and the National Collaborating Centre for the Determinants of Health, as well as deepen research-related collaborations with partners in the Maple League of Universities.
- To continue efforts aimed at increasing the profile of StFX researchers and artists, as well as supporting faculty and student research recognition, both internally and externally.
- To improve university-wide planning and support for research and creative infrastructure, equipment, and facilities, including library research resources.
- To improve the overall position of StFX relative to comparator undergraduate universities in national research rankings and retain the high ranking position of StFX on measures for quality of research as measured in national research rankings.



PROPOSED ACTIONS

The following have been identified as the key issues and areas requiring attention in addressing the overall goal of advancing a culture of faculty success and student involvement in research and creative works at StFX from 2019-2025:

- ***Faculty Research Capacity - Time and Funding for Research and Creative Works***
- ***Student Research Experience, Student Involvement in Research***
- ***Profile and Recognition of Research and Creative Works; Further Development of Research Partnerships***
- ***Resources, Tools, Infrastructure & Facilities for Research and Creative Works***
- ***Institutional Environment for Research and Creative Works***

A series of proposed actions to address the goals outlined above follow under each of these categories and were informed by input through discussions with faculty, staff and students, as well as discussions at a 2019 Senate Workshop on Research.

Faculty Research Capacity - Time and Funding for Research and Creative Work

Goals:

- To better support faculty researchers at all stages of their professional lifecycle with additional time and funding for research and creative works.
- To improve support for newly appointed faculty members with the establishment of their research and creative efforts.
- To strengthen efforts aimed at attracting increased external funding from granting programs, government agencies, communities, NGOs, industry and foundations for all types of research and creative works at StFX.

Proposed Actions:

- It is recommended that the University and the StFX Association of University Teachers (AUT) establish a modified teaching load similar to comparator universities for all new tenure track faculty members in order to enhance their ability to establish their research and creative programs and dedicate time to apply for external research funding in an equitable manner.
- Review and if necessary adjust the amount of start-up research funding available for new tenure track faculty members to ensure that StFX is competitive with comparator undergraduate universities in faculty recruitment efforts. Ensure equitable allocation of faculty start-up funding on the basis of types of research and relative costs of research, and establish a policy to encourage efficient use of start-up funds for research and creative works.
- Establish an annual competitive process for faculty teaching release research awards administered by the UCR. The UCR would establish criteria for these awards, which could include quality/merit of proposal, research track record, and success in (or potential for success in) securing external research funds.
- Expand workshops, one-on-one mentorship, and research proposal review/feedback with faculty members in an effort to secure external research funding from granting programs, government agencies, communities, NGOs, industry and foundations.
- Increase internal research funding available for faculty research at all professional career stages through the University Council for Research (UCR) and strengthen efforts by the Advancement Department to secure increased donor funding for faculty research and creative works, including additional internal Research Chairs that can be awarded on a competitive basis to support faculty time for research (similar to the Leger Chair or James Chair).
- Increase internal funding for student research awards, thereby allowing faculty holding research grants to fund additional student researchers or direct funding to other research costs.
- Continue efforts to make undergraduate student research awards offered and funded by external and internal sources more equitable in terms of funding levels and application/review procedures, as well as funded at levels similar to comparator universities.
- Expand the role of the Research Services Group as a source of information and support for the engagement of students in research by offering information sessions and workshops. Organize activities designed to increase awareness of student research experiences. Join the Council for Undergraduate Research (CUR) and work with Maple League Universities on initiatives related to undergraduate student research experience (e.g. host a joint CUR Institute in Eastern Canada).
- Review and if necessary revise internal incentives (e.g. teaching credit) related to faculty involvement in student research mentorship and supervision.



Student Research Experience, Student Involvement in Research

Goals:

- To increase the number and diversity of undergraduate students involved in research and make research a more integral part of the StFX undergraduate student experience.

Proposed Actions:

- Increase emphasis on funding to support student research in StFX Advancement fundraising efforts.
- Examine and develop mechanisms that could help involve and engage higher percentages of StFX undergraduate students in research (e.g. replicate approaches used for Service Learning to expand course-based research experiences).
- Undertake efforts to increase the diversity of undergraduate student research efforts at StFX by reviewing application and evaluation criteria for undergraduate summer research awards. Track diversity of student involvement in research at StFX (through NSSE).
- Continue efforts to make undergraduate student research awards offered and funded by external and internal sources more equitable in terms of funding levels and application/review procedures, as well as funded at levels similar to comparator universities.
- Expand the role of the Research Services Group as a source of information and support for the engagement of students in research by offering information sessions and workshops. Organize activities designed to increase awareness of student research experiences. Join the Council for Undergraduate Research (CUR) and work with Maple League Universities on initiatives related to undergraduate student research experience (e.g. host a joint CUR Institute in Eastern Canada).
- Review and if necessary revise internal incentives (e.g. teaching credit) related to faculty involvement in student research mentorship and supervision.



Profile and Recognition of Research and Creative Works; Further Development of Research Partnerships

Goals:

- To continue efforts aimed at increasing the profile of StFX researchers and artists, as well as supporting faculty and student research recognition, both internally and externally.
- To strengthen internal and external research collaborations and to increase the profile of research through the further development of StFX research institutes and research centres.
- To strengthen research-related collaborations involving the Coady Institute, the Extension Department, and the National Collaborating Centre for the Determinants of Health, as well as deepen research-related collaborations with partners in the Maple League of Universities.

Proposed Actions:

- Continue to develop the StFX research website and social media communication efforts that place focus on profiling research news at StFX, as well as StFX researchers and students.
- Develop a publicly accessible institutional repository, which will contain citations for research conducted at StFX, as well as access to research documents, publications and reports (in accord with copyright protocols and federal Open Access Policy requirements) and access to copies of student theses.
- Facilitate the ongoing development of StFX research institutes and related research centres with financial and administrative support for workshops and planning efforts. Secure new funding, with leadership from the Advancement Department, to help support the operations of Senate-approved research centres and institutes.
- Facilitate through workshops, networking events, and inclusive planning efforts stronger internal research partnerships between StFX researchers, Coady Institute and Extension Department staff, and the National Collaborating Centre for Determinants of Health (e.g. development of a Knowledge Translation Centre at StFX).



- Strengthen support for events aimed at establishing partnership connections between StFX faculty researchers and Maple League of University researchers, as well as external research partners (community, government, NGO, and private sector).
- Continue to provide support for development of applications and nominations for faculty research accomplishments, prizes and career achievements, such as nominations to the Royal Society of Canada.
- Continue to develop and support research lectures on campus, events for presentation of creative works (e.g. art exhibits, music and dramatic performances), Student and Faculty Research Days, book launch events for StFX authors, as well as an annual celebration event for StFX book authors and co-authors.

Resources, Tools, Infrastructure & Facilities for Research and Creative Works

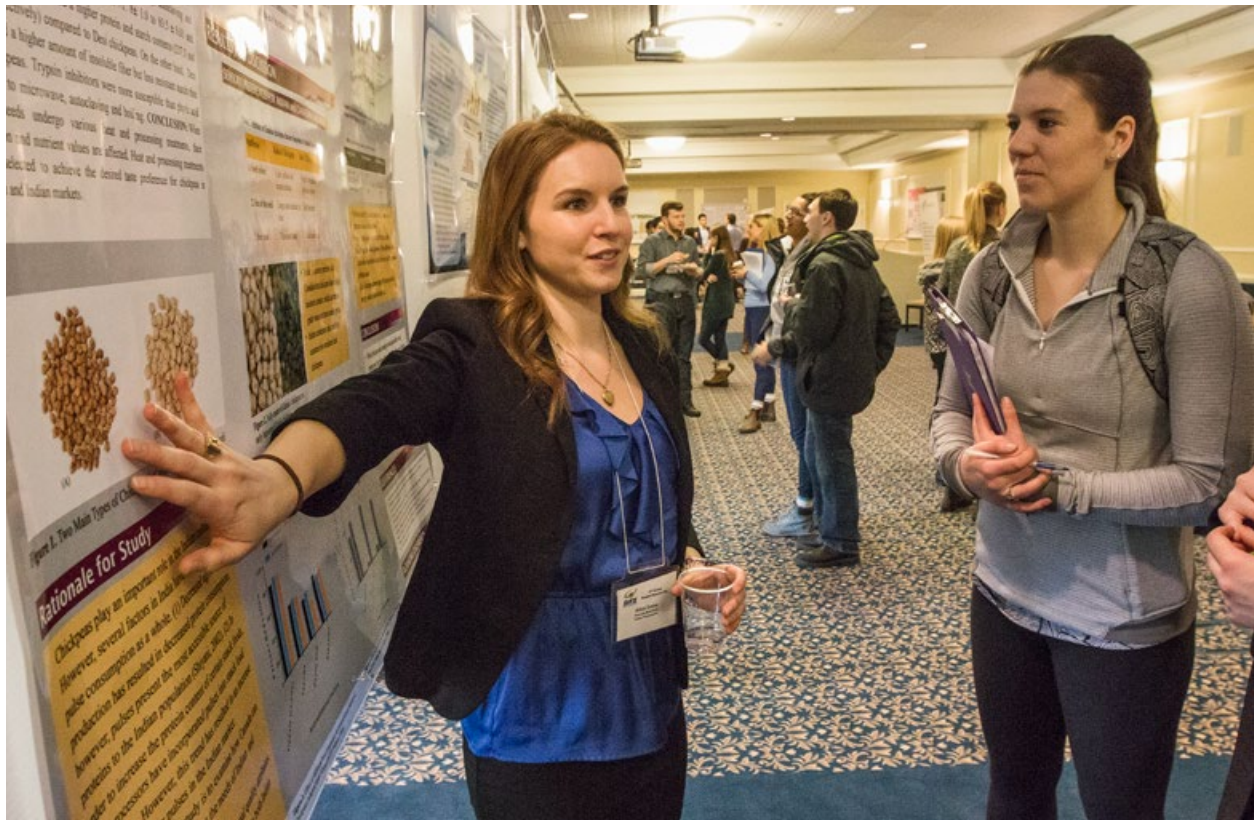
Goals:

- To increase the number and diversity of undergraduate students involved in research and make research a more integral part of the StFX undergraduate student experience.



Proposed Actions:

- Continue support for the Library's ability to provide all campus scholars and researchers with support needed to create, acquire, maintain, distribute and archive research outputs, including data, in permanent, searchable formats.
- Review research software needs, accessibility, and support to ensure ongoing relevance, utility and cost-effectiveness. Expand internal training and support for research software use.
- Provide appropriate resources, training and support to researchers for the distribution of research output via open access methods (while minimizing costs wherever possible) and adhere to new research data management requirements established by the Tri-Agencies.
- Examine feasibility, need and options for improving internal support for book and research journal publications.
- Review (and if necessary revise) current processes for planning and budget allocations to research and creative infrastructure and facilities.
- Increase efforts by the Advancement Department to identify new external funding sources to support investments in equipment, software, and infrastructure to support research and creative works.
- Continue strategic use of the Canada Foundation for Innovation (CFI) Infrastructure Operating Fund to respond to needs for repairs and upgrades to CFI-funded equipment.
- Identify and undertake proactive planning in areas where StFX could successfully compete for CFI Innovation Funding in partnership with other institutions.
- Continue support for StFX's involvement in the Atlantic Data Research Centre (research access to secure Statistics Canada data sets); further explore development of a secure satellite location of ARDC at StFX.



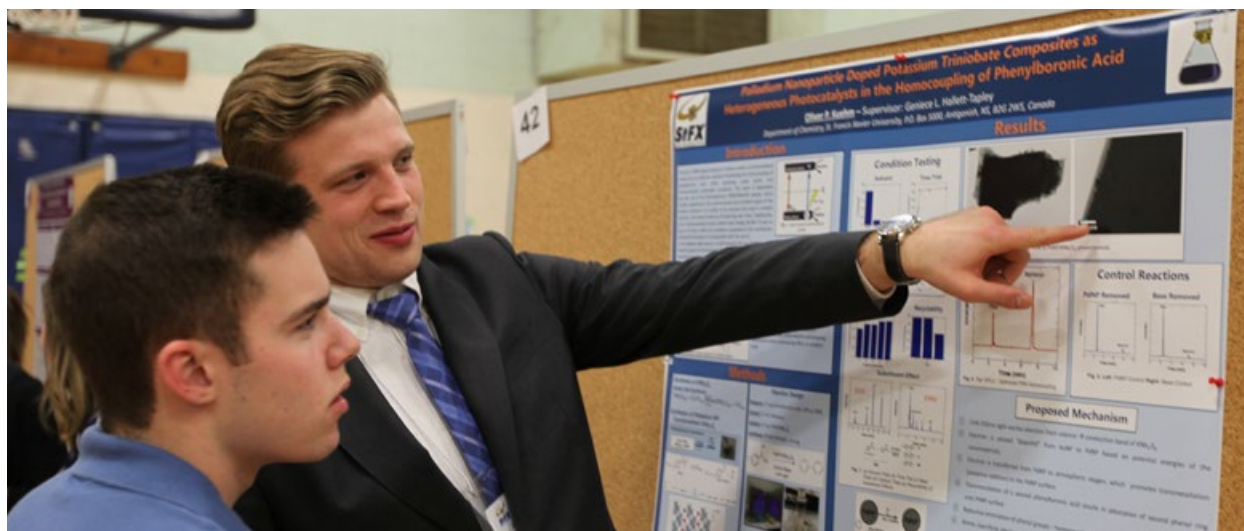
Institutional Environment for Research and Creative Activity

Goals:

- To strengthen efforts related to equity, diversity and inclusion within and across the StFX academic research environment.
- To strengthen efforts aimed at attracting increased external funding from granting programs, government agencies, communities, NGOs, industry and foundations for all types of research and creative works at StFX.
- To improve the overall position of StFX relative to comparator undergraduate universities in national research rankings and retain the high ranking position of StFX on measures for quality of research as measured in national research rankings.

Proposed Actions:

- Conduct a review of employment system practices and academic workload assignment practices within StFX to determine if these are causing inequitable expectations, pressures, or allocation of teaching or service assignments that impede time for research or create barriers to research productivity and career advancement for members of under-represented groups.



- Review academic recruitment and hiring practices at StFX to determine how these may result in barriers for members of under-represented groups. Carry out a pay equity audit and survey of diversity in our faculty workforce.
- Develop and implement rigorous professional development and training efforts to strengthen awareness, sensitivity, and cultural competencies related to equity, diversity and inclusion in the StFX academic research environment, including the organization of training sessions for hiring committees and other relevant stakeholders to assess formal/informal processes that potentially lead to bias or other barriers for members of under-represented groups.
- Strengthen research-related professional development efforts through the new StFX Teaching and Research Learning Centre. Expand group workshops and personalized advice for faculty members on specific research grant competitions and project applications, as well as access to peer-reviewed feedback wherever possible on specific research applications. Develop new information sessions and workshops for faculty on policies and best-practices for research grant and research account administration and oversight.
- Invest in the ROMEO Researcher Portal to move StFX to fully on-line management of faculty of internal and external research and certification applications, as well as establish researcher training to support effective use of this portal.
- Establish new efforts to provide faculty with information, strategies, tools, support, and training to manage research data resources and adhere to Tri-Agency policies on Open Access and Research Data Management.
- Explore potential for increased research collaboration within the Maple League of Universities in thematic areas, as well as areas related to research (e.g. professional development, mentoring or feedback on research grant development efforts).
- Deepen collaborative relationships with the National Collaborating Centre for Determinants of Health (NCCDH) in order to strengthen knowledge translation efforts related to research programs across disciplines.
- Continue support for StFX research writing retreats in partnership with the Faculty Development Committee.



Resources, Tools, Infrastructure & Facilities for Research and Creative Works

Goals:

- To increase the number and diversity of undergraduate students involved in research and make research a more integral part of the StFX undergraduate student experience.

Proposed Actions:

- Continue support for the Library's ability to provide all campus scholars and researchers with support needed to create, acquire, maintain, distribute and archive research outputs, including data, in permanent, searchable formats.
- Review research software needs, accessibility, and support to ensure ongoing relevance, utility and cost-effectiveness. Expand internal training and support for research software use.



- Provide appropriate resources, training and support to researchers for the distribution of research output via open access methods (while minimizing costs wherever possible) and adhere to new research data management requirements established by the Tri-Agencies.
- Examine feasibility, need and options for improving internal support for book and research journal publications.
- Review (and if necessary revise) current processes for planning and budget allocations to research and creative infrastructure and facilities.
- Increase efforts by the Advancement Department to identify new external funding sources to support investments in equipment, software, and infrastructure to support research and creative works.
- Continue strategic use of the Canada Foundation for Innovation (CFI) Infrastructure Operating Fund to respond to needs for repairs and upgrades to CFI-funded equipment.
- Identify and undertake proactive planning in areas where StFX could successfully compete for CFI Innovation Funding in partnership with other institutions.
- Continue support for StFX's involvement in the Atlantic Data Research Centre (research access to secure Statistics Canada data sets); further explore development of a secure satellite location of ARDC at StFX.

PRIORITY AREAS OF RESEARCH 2019-2025

While diverse programs and activities of individual faculty members are the foundation of overall StFX research and creative efforts, there are several thematic areas that represent strengths in terms of external research funding support, concentration of disciplinary and multi-disciplinary expertise, as well as research collaborations within the university and externally.

These areas tend to hold potential for the formation of research institutes or centres and tend to address broad questions or issues of regional, national or international significance. They also hold strong potential for communicating to external audiences and prospective future students about StFX and what differentiates StFX from other universities.

While the identification of thematic research priorities signals opportunities for improving research networks and undertaking efforts to raise the visibility and profile of StFX research, it does not detract from the University's commitment to, support for, or the value placed on, the full range of individual research or creative interests.

In the 2012 StFX Strategic Research Plan, six “research clusters” were defined as cross-cutting themes, inter-disciplinary in nature and providing extensive opportunities for research collaboration beyond the University on issues of local, regional, national and international significance.

For this renewed Strategic Research Plan (2019-2025), StFX builds on this approach by identifying priority research themes that are characterized by a number of principles or attributes, including:

- Areas where there is existing or potential for inter-departmental and multi-disciplinary faculty research collaboration across StFX, drawing on a broad range of disciplinary research interests and capabilities in the natural and physical sciences, health sciences, management sciences, the social sciences, and the humanities.
- Areas that are representative of the current and future academic aspirations of StFX; areas where StFX currently or plans to make significant impacts; areas which help differentiate StFX from other universities.
- Areas involving several faculty researchers active in a common area or theme.
- Areas where there is high involvement of students in research and learning opportunities, or strong potential for student involvement.
- Areas characterized by high degrees of researcher engagement in collaborations with external researchers and partner organizations.

Four overarching and inter-linked research priority themes that reflect these attributes have been identified for the 2019-2025 term of this Plan.

STFX PRIORITY RESEARCH THEMES – 2019-2025





PUBLIC POLICY, GOVERNANCE & LEADERSHIP

With the recent creation of the Brian Mulroney Institute of Government as a Senate-approved StFX research institute, as well as the existence of the Frank McKenna Centre for Leadership and the Coady International Institute, StFX has a broad range of research interests and capacities that relate to this priority thematic area.

New Research Chairs in Canada-US Relations, Canadian Arctic Security Policy and Arctic Policy have already been established under the Brian Mulroney Institute of Government. Further Research Chairs are planned or under development in Women's Leadership for Global Change, Democracy & Governance, Human Rights, Environmental Policy, and Indigenous Governance. One of five current StFX Canada Research Chairs is in the area of Social Change Leadership. A new Professorship, the John Sears Chair in Corporate Social Responsibility, has recently been created in the Schwartz School of Business.

Faculty research interests and capabilities under this theme include economic, trade, employment and labour policy; environment and climate policy; security policy; international relations; federalism (including federal/provincial relations); Canada-US relations; Arctic policy; Indigenous governance and the enforcement of treaty rights; policy impacts of think-tanks; human rights and democracy; transitional justice; political history; regional and rural policy; social and cultural policy; social change leadership; and health policy.

Business research interests related to organizational development and leadership, banking, finance, as well as corporate social responsibility are also aligned with this thematic area. Several researchers have interests related to private and public sector governance and management, as well as Indigenous governance. Finally, StFX has research interests and capabilities related to women's leadership that are aligned with this thematic area - the Hive for Feminist Research is an internal network that represents and advances faculty and student feminist research interests at StFX.



CLIMATE & ENVIRONMENT

Research in climate and environment represents a highly productive and successful area at StFX University. It is a research area where student research training occurs at undergraduate, Masters and PhD levels. Climate and environment research at StFX is also broadly inter-disciplinary, linking faculty applying natural and physical science research methodologies, with those involved in social, health and management sciences. It includes researchers with interests in sustainable development, marine and freshwater ecology, fisheries, natural resources management, and energy-environment issues.

Together, StFX faculty members undertaking climate and environment research have had a strong track record of success in obtaining external funding from the Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC); government departments such as Natural Resources Canada, Environment and Climate Change Canada; Agriculture and Agri-food Canada; and provincial research funding agencies and programs. StFX has received several ACOA Atlantic Innovation Fund (AIF) awards in areas related to climate and environmental research; StFX is also the only small undergraduate-focused university in Canada to successfully be awarded a NSERC Collaborative Research Training Experience (CREATE) grant – which focused on research training for climate change adaptation in partnership with Acadia University, UQAM and Memorial University of Newfoundland. Several StFX faculty members have been awarded Canada Research Chairs for climate and environment-oriented research programs.

Faculty research interests and capabilities across this priority research theme include climate dynamics and the development of climate change adaptation strategies; technologies and computational methodologies for measuring greenhouse gas emissions; mathematical and computational modelling of environmental, ecological and energy/power systems; environmental occupational health and safety research; biogeochemistry; marine and freshwater ecology; marine biofouling research; green chemistry; measurement of atmospheric greenhouse gases; environmental and natural resource economics; Indigenous fisheries and natural resource management rights; environment-health research; environmental policy; business strategies to address climate change and environmental issues; environmental education; and studying social movements in support of sustainability and environmental change.



HEALTHY PEOPLES & COMMUNITIES

Health is an area of many broad existing and emerging research-related interests and capacities at StFX. Given that StFX does not possess a medical school, health research interests tend to blend traditional biomedical approaches to health research with efforts that are strongly focused on social determinants and arts-informed approaches to understanding health.

Two of five current Canada Research Chairs at StFX are in health-related themes (Health Equity for Social Justice and Bioinformatics). StFX is also home for the National Collaborating Centre for the Determinants of Health (NCCDH), one of six national collaborating centres funded by the Public Health Agency of Canada (PHAC). The NCCDH conducts knowledge mobilization and knowledge translation in the area of social determinants of health, working directly with public health professionals and other stakeholders to share the latest knowledge on how differences in local socio-economic conditions can cause inequities in health and public health care services. StFX is also a partner in the CIHR-funded Atlantic Indigenous Mentorship Network, which is examining ways to encourage Indigenous students to study health research by seeking guidance from Indigenous Elders and knowledge holders able to incorporate Indigenous cultural identities and Ways of Knowing into postsecondary health research efforts.

StFX has announced plans to construct the Centre for Health Innovation as a means for facilitating further development of health research and creative efforts in this priority theme. The Centre will advance several areas of research that will contribute to new health services, more effective health systems, population health, and health-oriented public policies. Areas of research focus will include health informatics, health inequities and social justice, lifespan development, exercise and performance, along with the emerging field of health and the arts. This latter area is expected to build on and expand strong community-based research connections and collaborations.



StFX is currently home to multi-disciplinary health research groups and laboratories, including the Human Metabolism Research Group (HMRG), comprised of several faculty researchers working at the intersection of nutrition, metabolism, and exercise science fields. The HMRG links research on human environmental exercise physiology with cellular mitochondrial physiology research, as well as research on potential influences of micro-nutrient status on exercise performance in strenuous environments. StFX recently opened the newly created Applied Neuro-Cognitive Research (ANChoR) Laboratory equipped with electroencephalography (EEG) technology, which records the electrical activity of the brain, and will enable researchers to understand the biological systems that support how people think. This new laboratory allows researchers to move beyond studying only behaviour to measuring associated brain function as well enabling the study of cognitive abilities across the lifespan, from infancy to old age, and in individuals affected by developmental disorders and neurodegenerative diseases. StFX researchers are interested in how cognitive abilities are influenced by diseases and disorders, such as multiple sclerosis and attention-deficit/hyperactivity disorder. The goals are to refine methods of identifying cognitive dysfunction, improve cognitive health and, ultimately, to improve patients' quality of life.

Key faculty health research-related interests and capabilities include: Indigenous health; computational and statistical learning technologies to assist in diagnosis and characterization of neurodevelopmental disorders; vaccine program implementation and evaluation; population health assessment, dietary assessment, and epidemiological analysis; use of statistical techniques and epidemiological data sets to study cancer and carcinogen exposure; health policy research; bio-medical ethics; historical perceptions of pain; intersections between western clinical interventions and non-western practices supporting health and well-being; quality control information and management systems for pharmacies; improving the quality of care and health of individuals experiencing mental health and marginalization in rural communities; youth substance use and mental health; social determinants of health throughout the lifespan within the context of social relationships; culturally-relevant physical and health education; food security and health; educational programming related to health; physical activity and mental health; mental health literacy in school systems; cosmetic surgery and body image; and physical activity interventions for disabled persons.



CULTURES, SOCIETIES & DEVELOPMENT

The priority thematic area of culture, societies and development brings together significant humanities research capabilities across StFX in areas such as Renaissance art history; Celtic languages, history and literature; ancient, medieval and Enlightenment languages, literature and history; Hispanic civilization; Arabic studies; ancient and medieval philosophy, as well as early and medieval theology, non-western religious traditions and Biblical studies. Creative scholars at StFX are producing artistic, film, musical, poetry and theatrical contributions to culture.

StFX scholars in this area are also interested in studying the evolution of societies over time, as well as understanding societies in contemporary context, including the presence of cultural industries. Research is aimed at understanding urban social change and the sociological features of rural and remote communities (including work); entrepreneurship and innovative business practices; employment systems; mapping and assessing community-based assets for development; labour force economics and readiness; inclusive enterprise and innovation at the community level; as well as community-based food security. StFX is home to the Centre for Employment Innovation (CEI), which provides leadership, conducts research, fosters exemplary practices, and encourages collaboration in the development and delivery of employment services across Nova Scotia. Through engagement and participatory research activities with its partners, the CEI works to build capacity, strengthen governance, enhance diversity and inclusion in the workplace, and increase the quality and effectiveness of employment services across the province, in order to foster a more skilled, resilient and productive workforce. StFX is also a network partner in CLARI (Change Lab Action Research Initiative), a provincial initiative aimed at facilitating community-responsive research partnerships with Nova Scotia universities.



The study of culture and development at StFX spans topics aimed at increasing our understanding of how humans develop individually, and collectively – from local to global levels. StFX researchers are addressing early childhood development, as well as modes of learning, life-long-learning and development throughout the lifespan (with particular emphasis on culturally-relevant education strategies for traditionally under-served communities). This thematic area also includes research capabilities and interests in gender and sexuality, same-sex relationships, First Nations communities, and African-Canadian cultural studies. It also includes social science and humanities-based approaches to understanding sport in society, including gender, race, political and historical perspectives.

Digital humanities and new media studies involves several StFX faculty members. A newly appointed Canada Research Chair in Digital Humanities and New Media at StFX is focusing on pedagogical research related to this quickly evolving field. StFX faculty are using computational techniques, digital tools and software to undertake scholarly analysis of ancient texts. Others are interested in using open-access digital resources to explore topics in literature, dramatic theatre, and film; how contemporary new media technologies can be used to examine contemporary experiments in aesthetics; as well as literary and cultural studies.



OUTCOMES

While the individual strategic objectives and priorities contained in this Plan will not necessarily apply to all researchers and the circumstances of specific research programs, needs and aspirations; this does not preclude researchers from pursuing their own personal goals or from accessing internal support for research and creative works.

It is anticipated that acting on the strategic objectives and priorities in this Plan will lead to the following outcomes for StFX over the next 5 years:

- StFX will become a more equitable, diverse and inclusive academic research environment.
- Researchers at StFX will achieve greater success in advancing their individual and collective research and creative works.
- Researchers will achieve greater success in accessing funding needed for their (and their students') research and creative works.
- The number and diversity of undergraduate students involved in research will increase over time and research will become a more integral part of the StFX undergraduate student experience.
- The external (national and international) reputation of StFX (and its faculty members and students) in research and creative activity will be enhanced.
- StFX research institutes and centres will lead to greater internal and external research collaboration and will increase the visibility and profile of StFX research efforts.
- StFX's infrastructure for research and creative works will be enhanced over time.

