POWERED BY GRENFELL

RESEARCH AND GRADUATE STUDIES REPORT 2016-2018
Grenfell Campus, Memorial University, is a vibrant and creative research community, supported by the Office of Research and Graduate Studies. Our scholars are active in a wide range of research, innovation, and creative activity. And powered by our people and partners, we are experiencing research growth! This report shares some of our success stories from the past three years – examples of dynamic work being done in our Schools of Arts and Social Science, Fine Arts and Science and the Environment. Researchers at our partner organization Western Regional School of Nursing are also making advances in the areas of community health and acute care.

The cutting-edge facilities being used by our faculty provide high-level research resources to support federal, provincial, university and private sector research priorities. The Boreal Ecosystem Research Facility, for instance, conducts research in forestry, agriculture and environmental sectors, while the affiliated Functional Foods Sensory Lab examines “functional foods” – natural or processed food products with known health benefits beyond basic nutritional needs. Other facilities include the Aging Research Centre NL, the Grenfell Campus Observatory and the Environmental Policy Institute, all of which you can learn more about throughout this report.

In addition, Grenfell Campus is progressively building its graduate program offerings – to date we have three master’s programs in arts, science and fine arts, and we are developing new master’s programs in management and applied geomatics and a PhD in sustainability science. Grenfell’s graduate programs offer excellent opportunities for hands-on research and collaboration with supervisors/faculty members. Some of our student research is highlighted herein as well. So, take a moment to have a look at the innovative and impactful scholarly work being done at Grenfell Campus, throughout our region and around the globe.

DR. KELLY VODDEN
AVP (GRENFELL CAMPUS) RESEARCH AND GRADUATE STUDIES

Message from the AVP
VISION:
Grenfell Campus is a community where research excellence is valued and promoted for its contributions to the advancement of knowledge in the western region specifically, but also in Newfoundland and Labrador, Canada, and the world.

MISSION:
We will build upon Grenfell Campus’s vibrant culture of creativity and innovation, and continue to foster research excellence and scholarly collaborations to create, share, and apply knowledge with integrity, respect, and purpose.

MANDATE:
To provide high quality research administration that supports, encourages, and celebrates excellence in research, scholarship, and creative activity at Grenfell Campus. These efforts will contribute to the overall aims of Memorial University, to the learning, careers and professional development of our researchers, and to our local communities and the global knowledge community.
GRADUATE STUDIES: VISION, MISSION, MANDATE

VISION:
To offer a suite of unique, vibrant graduate programs at both the Master and PhD level that reflect Grenfell’s values and expertise.

MISSION:
To support the development of high-quality graduate programs and enriched student experience which include the graduation of highly qualified personnel who are well-prepared to contribute to future scholarly and professional endeavours.

MANDATE:
To work with schools and service units across the university to support high quality graduate programs and graduate student experience at Grenfell Campus.
Grenfell’s Research Committee supports and provides advice to the Associate Vice-President (Grenfell) Research and Graduate Studies and Research Office staff regarding the planning of regular events, as well as longer term strategic planning, to foster improvements in research at Grenfell. The committee also recommends procedures and evaluates applications for the Vice-President’s (Grenfell Campus) Research Fund. In addition, the committee serves as a liaison between the Schools, Library Council and the Grenfell Office of Research and Graduate Studies.

- Dr. Mumtaz Cheema, School of Science and the Environment
- Prof. roy Hansen-robitchek, School of Fine Arts
- Dr. Brett Holfeld, School of Arts and Social Science
- Prof. Louise McGillis, Ferriss Hodgott Library
- Dawn Pittman, Nurse Educator, Western Regional School of Nursing
- Dr. Kelly Vodden, non-voting chair

Grenfell Campus Research Ethics Board, Past Members (2015-18)
The Grenfell Campus Research Ethics Board (GC-REB) assesses research with humans. They assess ethics applications pertaining to online and in-person surveys, focus groups, interviews and other methods of data collection. The ethics committee reviews applications to ensure they are consistent with the Tri-Council Policy guidelines, and Memorial University of Newfoundland’s Research Policies. In particular, the committee pays attention to the core ethical principles of Respect for Persons, Concern for Welfare, and Justice.

- Dr. Rainer Baehre, History, School of Arts and Social Science
- Dr. John Bodner, Social/Cultural Studies, School of Arts and Social Science
- Dr. Stephen Decker, Environmental Studies, School of Science and the Environment
- Dr. Catherine Keske, Boreal Ecosystems and Agricultural Sciences, Environmental Studies, School of Science and the Environment
- Dr. Daniel Nadolny, Psychology, School of Arts and Social Science
- Ms. Mariel Parcon, Community Representative – Regional Manager, Research and Evaluation, Western Health
- Prof. Nathalie Pender French, School of Arts and Social Science
- Mr. Brady Reid, Graduate Student Representative
- Dr. Roza Tchoukaleyska, Geography, School of Science and the Environment
- Dr. Kelly Warren, Psychology, School of Arts and Social Science
- Ms. Darlene Walsh, Community Representative – Regional Manager, Research and Evaluation, Western Health

Graduate Studies Working Group
The Graduate Studies Working Group supports and provides advice to the Associate Vice-President (Grenfell) Research and Graduate Studies regarding the planning of new graduate programs at Grenfell. The group also recommends activities to enhance current programs and serves as a liaison between the working group and member representatives’ program and school. Issues of relevance and policies and decisions from the School of Graduate Studies that affect Grenfell are also brought forward by this group. The group provides a vehicle for discussion of common issues across graduate studies programs.

Members, 2018-19
- Dr. Mumtaz Cheema – Program - Master of Science in Boreal Ecosystems and Agricultural Science
- Dr. Paul Foley – Program - Master of Arts in Environmental Policy
- Prof. Cameron Forbes – Program - Master of Fine Arts
- Dr. Todd Hennessey - Dean, School of Fine Arts
- Dr. Ken Jacobsen - Dean (acting), School of Arts and Social Science
- Prof. Lynn Kendall – Program - Master of Management
- Dr. Michele Piercey – Normore - Dean, School of Science and the Environment
- Dr. Gabriela Sabau – Program - PhD in Sustainability Science
- Dr. Bob Scott – Program - Master of Science in Applied Geomatics

Our Office
The Grenfell Campus Office of Research and Graduate Studies has two related purposes: to provide high quality research administration that supports, encourages and celebrates excellence in research, scholarship and creative activity; and to support and to act as a liaison on all matters related to graduate education.

These efforts contribute to the overall aims of Memorial University, to the learning, careers and professional development of our researchers and graduate students, and to our local communities and the global knowledge community.

Our Grants Facilitation Officers provide pre-award services to faculty and students. This includes developing research plans, crafting funding applications, processing institutional approvals, and liaising with Research Grant and Contract Services (RGCS) at St. John’s Campus. Our Research and Financial Services Officer supports faculty and student research after funding has been secured. These services include liaising with...
the Grenfell Campus Research Ethics Board and researchers to process ethics applications as well as working with researchers to establish and manage their financial accounts. We also offer professional development to faculty and students through the development and promotion of educational sessions, webinars, and workshops and work to build and maintain relationships between researchers, community, government and industry partners, and funding agencies, in collaboration with the Grenfell Office of Engagement.

Working in collaboration with the School of Graduate Studies (SGS) at Memorial University and Grenfell’s schools, our office acts as a liaison on all matters related to graduate education. Our senior secretary, graduate studies, supports the collection, maintenance and distribution of materials for graduate students. Graduate studies assists students, graduate officers and program committees through the application and admissions process. Once the school year begins, we support our graduate students by developing orientation activities, administering student funding and assisting students and graduate officers with required documentation. We provide and facilitate professional development opportunities for graduate students and supervisors and assist with the administration of examinations (theses examinations, PhD comprehensive exams and doctoral defences). The office also helps develop new program proposals and brings together representatives of each of our graduate programs to discuss and make recommendations on matters pertaining to graduate studies at Grenfell Campus through our Graduate Studies Working Group.

OUR STAFF MEMBERS CURRENTLY INCLUDE:

- Dr. Kelly Vodden, associate vice-president, Research and Graduate Studies
- Ken Carter, director, Research and Engagement
- Jennifer Butler-Wright, grants and contracts facilitation officer
- Leanna Butters, grants and contracts facilitation officer (acting)
- Scott Caines, grants and contracts facilitation officer (acting)
- Pamela Gill, communications manager
- Lan Ma, research financial service officer
- Debbie Pike, immediate secretary
- Nadia Simmons, senior secretary, Graduate Studies
- Dr. Ivan Emke, associate vice-president, Research and Graduate Studies (interim) 2015-2017

ACKNOWLEDGEMENTS

- Hossen Ali – graduate student
- Ruby Barron – School of Graduate Studies
- Leanna Butters, Research Office
- Jennifer Butler White, Research Office
- Scott Caines, Research Office
- Conor Curtis, graduate student
- Heather Dawson, Marketing and Communications
- Laura Edwards, Marketing and Communications
- Krista Howell, Ferriss Hodgett Library
- Andrew Kim, School of Graduate Studies
- Myron King, Environmental Policy Institute
- Brennan Lowery, PhD candidate
- Lan Ma, Research Office
- Louise McGillis, Ferriss Hodgett Library
- Will Pender, Marketing and Communications
- Lori Lee Pike, Marketing and Communications
- Dr. Mery Perez, post-doctoral fellow
- Kristine Power, Queen Elizabeth II Library
- Crystal Rose, Ferriss Hodgett Library
- Nadia Simmons, Graduate Studies
- Carol Sullivan, School of Graduate Studies
- Peggy Colbourne, Western Regional School of Nursing
- Todd Hennessey, School of Fine Arts
- Ken Jacobsen, School of Arts and Social Science
- Michele Piercey-Normore, School of Science and the Environment
- Grenfell Campus Research committee
FOREST RESEARCH AND FOREST-BASED BIOECONOMY DEVELOPMENT
Forestry and the bioeconomy is an exciting area of research for our campus, region and province. The Research Office supports this agenda through activities such as the Forestry Research Connector, an event held by the office and the Canadian Forest Service (CFS) in December 2018. This event highlighted current research and potential opportunities for collaborative work in forestry-related topics. One such collaborative project is ACCESS – Assessing Climate Change in Ecological and Socioeconomic Systems, led by CFS-Corner Brook’s Dr. Joe Bowden (adjunct professor) and Doug Piercey. Another is eastern white pine ecology research being undertaken by Drs. Dmitry Sveshnikov and AndréArsenault (CFS and adjunct professor). Dr. Arsenault also leads a NRCAN research initiative on boreal sentinels and a forest biodiversity early warning system with cyanobacterial lichens with several collaborators, including Dr. Michele Piercey-Normore, the Miawpukek First Nation, Parks Canada and the Norwegian University of Life Sciences. With funding received from the Workforce Innovation Centre and in conjunction with NL Forestry Industry Association, Dr. Stephen Decker is leading a team to examine how to effectively develop and promote the potential of the bioeconomy in the forest sector to underrepresented groups.

FOOD AND AGRICULTURE SECTOR
Food and agriculture represents another area of research strength at Grenfell Campus. A number of agricultural initiatives were initiated over the 2016-18 period with government and industry partners, including roundtable discussions held on campus to identify over-arching research priorities in food and agriculture. The Grenfell Food and Agricultural Initiatives Working Group worked with other partners to establish a province-wide “Team Agriculture,” along with the Department of Fisheries and Land Resources, Agriculture and Agri-Food Canada, the Newfoundland and Labrador Federation of Agriculture and Food

First NL. Another collaborative effort among these partners is the biennial agriculture “Our Food, Our Future” research symposium.

Grenfell’s Boreal Ecosystem and Agriculture Sciences Facility (BERI), the Functional Foods Sensory Laboratory and Environmental Policy Institute are key assets that drive our food and agriculture research efforts. With support of provincial and federal funding partners and led by Dr. Raymond Thomas, the Functional Foods lab examines “functional foods” – natural or processed food products with known health benefits beyond basic nutritional needs and continues to grow its research activity, outputs and partnerships. Also within the food and agriculture sector we have been working on a number of agricultural initiatives with government and industry partners. For example, our BERI researchers have been working with New World Dairy to evaluate the use of dairy digestate, a result of anaerobic digestion of dairy farm waste, for the production of vegetable under controlled (greenhouse) conditions.

AGING IN NL
The province’s Aging Research Centre (ARC-NL), was established in 2018. It is supported by a provincial government investment of over $200,000, and brings together researchers to facilitate partnerships and catalyze new research initiatives, policies and programs in the area of aging in the province with particular focus on small-town, rural and remote communities. This included the launch of the ARC-NL Research Grants and Graduate Fellowships funding program. The Centre is led by Director Dr. Veronica Hutchings, in conjunction with other members of the ARC-NL core leadership team, a management board chaired by Grenfell VP Dr. Jeff Keshen and a multi-stakeholder advisory committee.

SUPPORTING THE WAY FORWARD AND RIS PILOT
The Offices of Research and Graduate Studies and Engagement also actively participate in The Way Forward priorities to grow NL agriculture, forestry and renewable energy sectors. In addition, our offices are currently involved in two provincial Regional Innovation Systems (RIS) Pilots designed to enhance innovation and competitiveness at the regional level: forestry and agriculture RIS pilot in Corner Brook and tourism and fishery pilots on the Northern Peninsula and in Southern Labrador.

INDIGENOUS AND RESEARCH COLLABORATIONS
Grenfell Campus is committed to working with and as part of the community of Corner Brook and the western region, located within traditional Mi’kmaw territory. In alignment with this commitment, Grenfell Campus is taking a leading role in Memorial’s efforts to strengthen Indigenous research. In partnership with Grenfell’s Indigenous Resource Centre and the Grenfell Office of Engagement, the Office of Research and Graduate Studies is working to promote and support meaningful and appropriate research collaborations with Indigenous groups in the western region and with Innu, Inuit and Mi’kmaw communities and organizations throughout the province.

For instance, an experiential learning student research project with a Business 1020 entrepreneurship class was completed in 2017 in partnership with No’kmaq Village (Flat Bay Band). Students developed models for sustainable tourism that celebrate Indigenous heritage while also providing a potential source of revenue. Meanwhile, Master of Arts in environment policy (MAEP) students also undertook projects in collaboration with the community, including...
examining strategies for addressing water insecurity (Ayotunde Omosule) and traditional knowledge and land use (Brady Reid).

Other projects included the 2018 symposium Etuaptmunk: Two-Eyed Seeing in Campus/Community Collaboration. Organized in partnership with Qalipu First Nation the symposium addressed the potential for collaboration in areas of Health and Wellness, Education, Natural Resources and the Environment, and Entrepreneurship and Innovation. Also in 2018, Dr. Svetlana Barkanova led a successful NSERC PromoScience application to develop a scientific and cultural outreach program for youth, particularly girls and Indigenous students, in rural areas of western Newfoundland in partnership with Qalipu First Nation and Parks Canada. Our Grenfell Art Gallery also regularly features work by Indigenous students, faculty, alumni and visiting artists. In 2018, an artist panel discussed their diverse practices in relation to the transmission and revitalization of Indigenous stories and experiences. The panel launched Visiting, an exhibition by MacDonald curated by alumna Emily Critch reflects and unpacks Indigenous/settler identity, pan-Indigenous cross-cultural exchange, cultural revival, and queerness.

In Labrador, research on the harvesting of rainwater, led by Dr. Maura Hanrahan, was conducted in partnership with NunatuKavut Community Council and Black Tickle Local Service District, along with another to examine the cultural and historical significance of the Labrador Husky in partnership with the Labrador Husky Committee, Northern Lights Dog Sledding, and NunatuKavut Community Council. MAEP student Jason Dicker examined the implications of the George River Caribou hunting ban in collaboration with the Nunatsiavut Government and Research Ethics Board member Dr. Stephen Decker participated in an Indigenous research governance dialogue and knowledge sharing event hosted by the NunatuKavut Community Council and Southern Inuit of NunatuKavut. Grenfell Art Gallery celebrated the presence of our students and alumni in the “North West River A/I: Six Years of the North West River Residency” exhibit in June 2018. We look forward to continuing efforts such as these to support respectful and reciprocal academic and research partnerships with Indigenous peoples.

RESEARCH IN THE COMMUNITY AND REGION
Grenfell Campus is also committed to developing research partnerships with communities and regions throughout Newfoundland and Labrador. For example, Grenfell, in partnership with the Harris Centre, is co-leading the regionally based Sustainable Northern Coastal Communities (tip of the Northern Peninsula) and the Thriving Regions Partnership (Southwest Coast and Baie Verte Peninsula) initiatives. The School of Fine Arts regularly contributes to the cultural vibrancy of our city through creative and scholarly activities such as theatre productions, exhibitions, the Corner Brook Museum Artist-in-Residence program and festivals such as CBNuit and the Saltbox Contemporary Arts Festival.

In addition, Grenfell Campus maintains a vital regional partnership in Gros Morne National Park. Historically, our students have conducted research within the park boundaries. And Gros Morne Cooperating Association, Parks Canada, and the Bonne Bay Cottage Hospital, among others, have been collaborators on a number of projects. These included Coastal Communities in Changing Climate: Impacts, Challenges, and Solutions for Gros Morne, a symposium led by Dr. Roza Tchoukaleyska and funded by the Social Sciences and Humanities Research Council (2018), and a conference called Biological, Social, Economic and Cultural Implications of Oil and Gas Exploration in the Gulf of St. Lawrence was co-organized by Dr. Robert Scott and Raymond Cusson (Gros Morne Cooperating Association) in 2016. Dr. Svetlana Barkanova has been working closely with the park to pursue Dark Sky Preserve designation, a status which would increase and diversify tourism. The School of Fine Arts also has a longstanding relationship with the Bonne Bay region, with students serving as Artists-in-Residence at the Bonne Bay Marine Station. In addition, students, staff and faculty feature work in the Cottage Collaborative Art Festival in Norris Point. Recently visual arts professor Marc Losier collaborated with the Royal Ontario Museum to represent the story of two blue whales that beached and died in Bonne Bay in 2018.

These are just a few examples of many successful collaborations between Grenfell Campus, communities and groups in the Park. We look forward to continuing to build new research programs and events on the successes of these partnerships.

INCREASED COLLABORATION WITH INDUSTRY ON RESEARCH

FAST TRACK TO RESEARCH PROJECT
The first phase of the Fast Track to Research project has been completed, creating a database of information and research opportunities from approximately 40 on-campus researchers and 40 off-campus community organizations, businesses, and industry representatives. The information gathered is now accessible to the Office of Research for use during the second phase – to connect researchers with organizations for potential collaborations. The first phase helped our office better understand how to facilitate potential research relationships and strengthen and increase connections.

COLLABORATION
This agenda of applied research developed in partnership with Corner Brook Pulp and Paper Limited and in conjunction with the Centre for Research and Innovation has realized multiple funding sources, including 15 MITACs funded internships offered to Master of Science in Boreal Ecosystems and Agricultural Sciences and Master of Arts in Environmental Policy students, along with a two-year postdoctoral position. This collaborative research program is intended to be ongoing. Currently funded research includes research on paper mill ash and sludge as a soil amendment and composting of sludge/woody biomass – materials that would have otherwise been considere

COLLABORATIONS WITH ANACONDA MINING INC.
Drs. Raymond Thomas, Laksmn Galedgedara, and Muntaz Cheema, Grenfell Campus and Lord Abbey of Dalhousie University, are working with Anaconda Mining Inc. to repurpose their waste from gold mining. The company produces 400,000 tons of rock dust annually as a waste byproduct from precious metal (gold) mining. Much of this material could be put to commercial use. Preliminary investigations determined the chemical composition of the rock dust is within acceptable limits for vegetable crop cultivation. The study is evaluating the potential of this waste as a suitable natural media amendment for forest reclamation and agriculture crop production. Anaconda Mining, together with Rambler Metals, Guy J. Bailey and the Town of Baie Verte, also partnered with the Environmental Policy Institute to support a MITACs internship placement completed by MAEP student Rashida Uthman that sought to assess the current state of sustainability in Baie Verte, and action plans to address sustainability issues. The project was linked to Uthman’s MA thesis examination of the role of the mining industry in community sustainability in Baie Verte.
"The School of Arts and Social Science is home to a vibrant and eclectic group of scholars, whose research interests range from confessional poetry and mapping entrepreneurial ecosystems to social emotional learning and sustainable tourism. As a nexus of humanities, social sciences, and business, the School prides itself on training 21st-century undergraduate students to engage with cutting-edge research, to challenge received opinion, and to imagine the world in new ways."
Dr. Rainer Baehre became interested in the environmental history of Newfoundland and Labrador nearly two decades ago. When on the board of directors of the Corner Brook Museum and Archives during its infancy, he researched the island’s forest history and co-organized Woodland Echoes, a two-day scholarly and community symposium, in collaboration with the Newfoundland Historical Society; a series of scholarly conference papers and publications followed including a co-authored paper, “Sustainability in the Humber River Basin,” that later appeared in the International Journal of Global Warming (2011). He also published Outrageous Seas: Shipwreck and Survival in the Waters off Newfoundland, 1583-1896 (McGill-Queen’s University Press, 1999), a historically contextualized study of many rare first-hand shipwreck accounts that reflect the role of the sea as social and cultural history.

Dr. Baehre’s more recent research in this field has focused on western Newfoundland. Much had been written about the new French Shore but little on the overlapping American Shore on this coast, until his study, “Diplomacy, Legal Issues, and Foreign Fishing in Newfoundland, 1814-30,” in Essays in the History of Canadian Law, Vol. 10 (University of Toronto Press, 2008), soon to be followed by “Newfoundland’s West Coast and the Gulf of St. Lawrence Fishery, ca. 1755–83: A Case Study of War, Fish, and Empire,” in The Greater Gulf: Essays on the Environmental History of the Gulf of St. Lawrence (McGill-Queen’s University Press, 2019 – in press).

Over the years, Dr. Baehre has continued his research into the environmental history of western Newfoundland in an effort to document and develop a better understanding of this region’s heritage. This has included not only involving students of History 4080 (Oral History) in class projects but also in a series of community library talks, later aired on Rogers Cable. Another example (with Richard Furlong), which was part of the Corner Brook Come Home week celebrations, is “From Woods Island to the Curling Waterfront: The Furlong Bros and the Bay of Island Fisheries, 1920s to 1950s.”
Anyone who thinks history is only about dusty books and dreary lectures hasn't met Dr. Bonnie White.

Dr. White’s research ranges from women’s labour and activism in the British Empire to outmigration in rural areas to community issues and identity.

Her participation in a project on the southwest coast along with two other Grenfell researchers, Dr. Roza Tchoukaleyska, cultural geographer, and Dr. Raymond Thomas, food chemist, is bringing the concept of the “food loop” to the area.

“This is a community-driven and community-focused approach to economic development,” said Dr. White, adding it combines on-farm tourism attractions, food heritage and the commercialization of local food products. “We’re working with multiple regional partners with an interest in agritourism and development of novel local foods.”

Termed the Southwest Food Loop, the project will see the three researchers work with students from Grenfell’s graduate programs (environmental policy and boreal ecosystems and agricultural science) and will avail of the Functional Food Sensory Lab and the Boreal Ecosystem Research Facility at Grenfell.

Dr. White will collect food heritage stories and train students and communities in oral history gathering.

“I have written about the history of agriculture and the relationship between industry and community,” she said, adding that she has worked on oral histories and the cultural and economic values attached to rural regions. “It’s about studying the relationship between history and heritage.”

Dr. White has also worked on television programs and with museums on the commodification of the past for heritage television and local tourism.

Another of Dr. White’s interests involves women’s history and social change during and after the First World War, particularly in women’s activism through volunteer and government organizations. Recently Dr. White conducted a study of the Imperial Order Daughters of the Empire (IODE) in western Newfoundland. The IODE was a women’s patriotic organization aimed at maintaining an imperial connection between Britain and Canada, with chapters established across Canada since the turn of the 20th century, and a chapter formed in Newfoundland that lasted from 1910 to 1930. She is seeking to gain an understanding of the philanthropic work of Newfoundland chapters of the IODE, the influence of which was documented in The Western Star throughout the 1950s, ‘60s and ‘70s.

“Newfoundland has always had a unique relationship with both Canada and Britain, and Confederation has remained a hotly debated issue for nearly 70 years,” said Dr. White. “While some embraced the new connection to Canada, others worried about what it would mean for Newfoundland’s cultural identity or for its centuries-old relationship to Britain. The IODE is part of the story of how Corner Brook responded to Confederation, how it saw itself as a city, and how residents have shaped the history of our region.”

Anyone wishing to contribute information to Dr. White’s study should contact her at bjwhite@grenfell.mun.ca.
Through her research, Dr. Jahanzeb has proposed that interpersonal risk, including embarrassment, rejection, humiliation, and punishment, might result from exposure to abusive supervision and, as such, advance defensive silence. She has also proposed that proactive personality, or the tendency to take action to influence one’s environment, might mitigate the process of defensive silence. As psychological safety in the workplace can result in a number of positive work-related attitudes and behaviours, like teamwork and organizational commitment, this research is significant in that it investigates when the translation of abusive supervision into defensive silence may be less likely to occur.

Dr. Jahanzeb joined Grenfell Campus in August 2018 as Assistant Professor in the Department of Business Administration. She has co-authored nine journal publications since 2017 looking at workplace relationships and employee attitudes and behaviours, including in the Journal of Business and Psychology and the European Journal of Work and Organizational Psychology.

Understanding supervisor-employee relationships
DR. SADIA JAHANZEB

What is the relationship between abusive supervision and employee productivity? How does psychological safety figure into abusive supervision and defensive silence? Research being conducted by Dr. Sadia Jahanzeb seeks to answer these questions. Existing research has suggested that abusive supervision can have negative consequences for employees. These consequences can include anything from increased depression, counterproductive work behaviours, anxiety, and poor affective wellbeing. Defensive silence is another response to abusive supervision, where employees make a conscious decision to withhold ideas, information or opinions. Often, defensive silence is a response based in fear.

In her current research, Dr. Jahanzeb is exploring psychological safety as a causal mechanism underpinning the relationships between exposure to abusive supervision and defensive silence. In this context, psychological safety can be understood as the extent to which an employee feels they will not be punished for admitting mistakes, voicing opinions, or taking risks that are well intentioned.
The intersection of art and health is a growing interdisciplinary field that embraces many forms of art to promote wellness, enhance health service delivery, and enrich research inquiry. Much of the research on art and health examines the effectiveness of art therapy programs, which require a trained therapist delivering art-based interventions. The role of the presence of art in healthcare settings, outside of art therapy, has yet to be fully explored.

Drs. Sonya Corbin Dwyer and Jennifer Buckle adapted a patient selection art program (Suter & Baylin, 2007) and implemented it in two units within Western Health; in the Palliative Care Unit and in Humberwood Centre, a residential provincial addictions treatment facility. They are interested in exploring the role of the choice and individual room display of art in the experience of clients, caregivers, and healthcare providers. The program provides clients with an opportunity to choose a piece of art from a catalogue of options to be displayed in their room during their stay. The art consists of canvas printed photographs donated by individual professional and amateur photographers, and the Department of Health and Social Development in the Nunatsiavut Government. Questionnaires are available for participants to provide their feedback on the program. Early results from the project indicate a positive response, with clients stating that it gave them an element of choice in their own care, allowed them to modify their space in a way they appreciated, brought them a sense of comfort and peacefulness, and helped make their room feel more like home.

Drs. Corbin Dwyer and Buckle have just developed and implemented the same program for Willow House, a domestic violence shelter for women and their children.


The connection between music and poetry

DR. STEPHANIE MCKENZIE

The latest published work by Dr. Stephanie McKenzie comes after she spent three and a half months in Serbia in 2017 studying the *gusle* and the oral literature that accompanies this instrument. The book, titled *Bow's Haunt: The Gusle's Lessons*, was published in Serbia, and follows extensive research by Dr. McKenzie on the gusle, a musical instrument that commonly accompanies epic poetry in Southeastern Europe. Bow’s Haunt was inspired by Dr. McKenzie’s longstanding interest in the fieldwork of American scholars Milman Parry and Albert Lord. Years back, Parry and his then student Albert Lord conducted extensive and groundbreaking research in this area, studying the epic traditions of Yugoslavian singers.

Dr. McKenzie took gusle lessons while in Serbia, despite the fact that the instrument is traditionally played only by men. She was offered membership in a gusle association. Her current and future work employs “some of the aesthetics and characteristics of these oral literatures and a significant amount of Indigenous literature and poetry.” Her broader research interests are concerned with the intersections of oral and written literatures, and how written works maintain the spirit and character of oral literatures. Other current projects on which Dr. McKenzie is working include co-editing a selection of works by Pamela Mordecai.
Raising the bar: Honours psychology student research

Students in Grenfell’s psychology programs continue to raise the bar with respect to our country’s undergraduate research outputs.

For instance, recent B.Sc. graduate Taylor Burt, who hails from Bishop’s Falls, credits her volunteer research experiences at Grenfell Campus to her successful acceptance to a prestigious Canadian audiology program. She began a master of clinical science in audiology at the University of Western Ontario in September.

“I received lots of volunteer experience with hearing at Grenfell that was essential to getting accepted,” said Ms. Burt, adding she also had the opportunity to do research in the field with an interdisciplinary research project combining sound research and cultural geography.

She conducted the fieldwork under the supervision of Dr. Benjamin Zendel, Faculty of Medicine, Canada Research Chair in Aging and Auditory Neuroscience, and ARC-NL Research Chair. Dr. Zendel runs a state-of-the-art auditory electroencephalography (EEG) laboratory – where Ms. Burt volunteered – called the Cognitive Aging and Auditory Neuroscience Laboratory. The lab has locations at both St. John’s Campus and Grenfell Campus.

Meanwhile, the honours thesis of graduate Emily Alexander of Kippens, N.L., was about differences in auditory processing (how the brain processes sound) between formally trained and self-taught musicians. You can listen to her talk about her research here. She took part in the Canadian Society for Brain, Behaviour, and Cognitive Science conference in St. John’s in 2018 and also presented her research at the Spring 2018 Science Atlantic Psychology conference that same year.

In fact, the Science Atlantic Psychology conference is a regular part of Grenfell’s honours psychology program. Students are regularly accepted to present their papers and posters and to take part in the annual conference sessions and panels. For instance in 2018, in addition to Emily Alexander, four other senior psychology students attended. The Science Atlantic conference provides undergraduate students from universities throughout Atlantic Canada the opportunity to showcase their own research, learn from psychology presentations in many different areas, and to network with students and researchers across Atlantic Canada.
The School of Fine Arts is a creative and inspiring community where the innovative works of our award-winning faculty and staff push boundaries and provoke thought. They are making performance art, multimedia installations and inventive theatre. They are making an impact provincially, nationally and globally.

DR. TODD HENNESSEY
DEAN, SCHOOL OF FINE ARTS

“The School of Fine Arts is a creative and inspiring community where the innovative works of our award-winning faculty and staff push boundaries and provoke thought. They are making performance art, multimedia installations and inventive theatre. They are making an impact provincially, nationally and globally.”
Impacts of the Arctic

PROF. ROBERT HENGEVELD

A trip to the Arctic and witnessing the full impact of global warming has caused Prof. Robert Hengeveld to examine more acutely how the way we live impacts the world around us.

An invitation to the Arctic Circle Expedition in 2017 saw the visual artist and associate professor in Grenfell’s School of Fine Art board the Antigua, and travel north of Salvard alongside artists, scientists and architects.

“The opportunity was quite impactful – but even more striking was the quantity of plastic debris I discovered washed up on each beach landing. To see this in such a remote part of the planet was incredibly disturbing, and led to a new work in 2018,” said Prof. Hengeveld. “Encountering such dramatic evidence to our anthropogenic reality has had me questioning every aspect of how we live and work, and has heavily influenced my research interests.”

This influence is demonstrated in a wide variety of exhibitions and installations; indeed, to say Prof. Hengeveld’s research is diverse would be an understatement. He has had a myriad of experiences and exhibitions over the last few years.

Taking many different forms ranging from drawings and landscape to video and sculpture, Prof. Hengeveld says the common denominator is “how we define and understand ‘the real’.”

One of his more interesting directions over the last year and moving forward has been working collaboratively on three projects with Dr. Oscar DeSilva and the Intelligent Systems Lab at Memorial’s St. John’s Campus.

“The first is upgrading the two robotic boulders (Where Phantoms Meet) to include localization software. Another has been the development of an animatronic moose that will to be part of a larger installation-based project”, he said, adding that the third project will involve 100 “swarming robots.”

Beyond his own interest in how we understand and perceive ‘the real,’ he has become increasingly invested in considering approaches to art making more generally – approaches that are both socially and environmentally responsible. He examines full lifecycle of an artwork: how art can be created that is both produced and exhibited in a sustainable way and how that might affect what and how art is taught in visual arts programming.

Prof. Hengeveld’s external funders: • Canada Council for the Arts • Ontario Arts Council • Toronto Arts Council, ArtsNL • Internal travel grant • Cross Campus Initiative Fund • Artistic creative grant. Support from Dr. Oscar DeSilva and the Intelligent Systems Lab.
Holograms, space and war:

PROF. RENATE POHL

The artwork of Prof. Renate Pohl of Grenfell’s Theatre Department has met “The Final Frontier.” As part of the RumbleSat Art in Space Mission package, three of Prof. Pohl’s lighting designs, reimagined for the space environment, launched to the edge of space in 2017.

Via the Canadian Space Agency’s ASTRAL 2017 campaign and JP Aerospace in Nevada, her artworks were carried as part of a larger art/science payload that comprised the RumbleSat 1a and 1b missions. These artworks returned to earth and were exhibited in The RumbleSat Art from the Edge of Space Exhibition in Canada and the US during 2017 and 2018.

That same year, Nuit 150+ festival goers entered a Corner Brook art gallery and were transported in a different manner through the magical and imagined world of holograms, designed by Prof. Pohl. The interactive lighting and set installation titled Reflection/Transmission had participants asking is it real or is it fake? Am I real or reflected?

Prof. Pohl’s creative research in lighting design includes a comparative study of real holograms with fake “holograms” for the staged environment, commonly known as the Pepper’s Ghost effect. In addition to the Nuit 150 design, she created reflective and transmission holograms at the Holocenter in New York and the University of Toronto Impact Centre (2017), and Dynamic Staged Mirrors, a research week collaboration with theatre director Lois Brown that explored the relation of choreographed text to properties of light (2018). The project continues as a new play development process through to 2021.

In other artistic endeavours, Prof. Pohl was the set and lighting designer for the provincial tour of Dedication, a play that follows Field Marshal Douglas Haig, a First World War general, who travels to St. John’s on July 1, 1924, to dedicate the National War Memorial. He is interviewed by a local journalist and suffragist, sparking a fierce debate about the causes of the World War and its consequences, about the horrors of the past and their hopes for the future. Co-produced by RCA Theatre Company and Arts and Culture Centres over a period of three years, the production opened at the LSPU Hall in St. John’s, and toured Newfoundland and Labrador Arts and Culture Centres during November 2017.

Prof. Pohl also presented workshops and research papers on the topic of applied staged lighting for space crew habitats, including “Holography Scenography: Budget Tech Theatre for Space” at the 67th International Astronautical Congress in Guadalajara, Mexico (2016), “Technical Theatre, Space Transformation and Psychological Management” at the 15th Annual Canadian Space Society Summit in Winnipeg (2016), and “Lighting Design as a Countermeasure for Enhancing Crew Performance” at International Space University’s Space Studies Program in Delft and Leiden, Netherlands (2018).
Engaging the community and collaborating on artistic projects comes easily to Prof. Jerry Etienne, as was demonstrated by his research activities over the last few years. In 2016, Prof. Etienne collaborated with a local community theatre group to write the Corner Brook Ghost Walk, which was produced as part of the City of Corner Brook’s 60th anniversary celebrations. It was met with overwhelming success and received very positively by local residents and tourists. The show was so popular it was reworked and remounted the following summer by the professional theatre company Theatre Newfoundland Labrador (TNL). That same summer Prof. Etienne performed in Short’s Long Day, TNL’s adaptation of a short story by Corner Brook writer Tom Finn. Performed in community venues and outside in city garden spaces, this free production was in partnership with the City of Corner Brook with a view to bringing theatre to local residents and tourists.

In the fall of 2016 he was director and choreographer of Too Cool for School, a musical performance at Corner Book’s Arts and Culture Centre. At the same time, he played the role of Arthur Kipps in The Woman in Black by Stephen Mallatrat for Hard Ticket Theatre in the same venue. That fall he applied for and received a VP Research Grant to study at Shakespeare and Company’s month-long Shakespeare intensive in Lenox, Mass., in the winter of 2017.

Upon returning to Grenfell in the spring he immediately jumped into the fight direction of Theatre at Grenfell’s 2017 Harlow production, Goodnight Desdemona (Good Morning Juliet). Once classes were officially over for the term, he moved out to Cow Head to direct Heroes, a comedy by Tom Stoppard, for TNL’s Gros Morne Theatre Festival summer season.

Over the course of the following year, in addition to directing Ring Round the Moon, Grenfell’s Harlow production (winter 2018), he performed the role of Capulet (and choreographed stage combat) for TNK Youth Theatre’s production of Romeo and Juliet. In addition, he performed PB Productions and College of the North Atlantic’s short film, Stephenville Theatre Festival and Maxim Mazumdar.

The summer and fall saw Prof. Etienne perform in a gala celebration of the work of Maxim Mazumdar, Maxim’s Dream, during the 40th season of the Stephenville Festival, as well as the writing and adaptation of George Feydeau’s Le Dindon that he titled Turkeys, Turkeys and More Turkeys, performed by his students in the fall season.
Any idea where North America’s first public zoo was established? Prof. D’Arcy Wilson does. Her research regarding Western culture’s colonial understanding of nature, led her to create The Memorialist, which highlights the little known story of North America’s first public zoo dedicated to the study of nature. Andrew Downs’ Zoological Gardens opened in 1847, in the outskirts of the young settler city of Halifax.

Prof. Wilson’s project uncovers little known information about the zoo and attempts to reconstruct the grounds in a diorama, while also presenting the opening of the zoo as another example of misguided and harmful colonial interactions with the natural world. “I have created an interdisciplinary visual art installation that acts not only as a critique of the zoological gardens, but also as a memorial to a lost connection between settler culture and nature,” said Prof. Wilson.

This project has been presented in exhibitions at the Owens Art Gallery at Mount Allison University (2016), and at Dalhousie University Art Gallery (2019), and the work continues to evolve. In a public performance, she adopts the persona of “The Memorialist” in order to lecture about the zoo, combining fact with whimsical drawings and photographs in a media intensive slide show. In October 2019, this work will be presented at the Art Gallery of Alberta, for the Sobey Art Award Exhibition, in which Prof. Wilson is the 2019 shortlisted artist representing the region of Atlantic Canada. The Memorialist was made possible with support from the Canada Council for the Arts, Centre for Art Tapes (in Halifax, NS), Arts NS, and an Artistic Creative Grant from Memorial University.

Prof. Wilson’s work has taken her abroad as well – in June 2017, she participated in the Art/Nature conference at the Museum für Naturkunde Berlin (Contemporary Art in Natural History Museum) in Germany.

Outside of her visual art practice, Prof. Wilson has founded the Saltbox Festival of Contemporary Art, bringing leading performance artists from across Canada to Grenfell Campus, curating and orchestrating the festival in collaboration with the Grenfell Campus Art Gallery. The festival has become a notable event in the Canadian art world, happening within Grenfell’s Fine Arts Building – creating work, volunteering, networking and viewing opportunities for Grenfell’s Fine Arts students and the community of Corner Brook.
Scholarly activity in the theatre

Our acting and technical theatre students in the Fine Arts theatre program are always looking for new ways to practice their art. Our graduates from the time period of this report have received local, national and international acclaim with their endeavours. Here are just a few examples:

While at Grenfell Campus, Stuart Simpson of St. John’s and Andrew Tremblett of Gander founded “Halfhandsome,” a sketch comedy troupe. In 2018 the group travelled to New York City to be part of NYC Sketch Fest in New York City. They’ve met with great success and continue to wow audiences with their unique brand of comedy.

Leah Dawn Hiscock of Corner Brook founded the Swan Players, a group that performed in 2017 and 2016 with productions of “Shakespeare’s Shorts” and “Twelfth Night.” The great thing about these productions? They happened outside at Margaret Bowater Park. And they were accessible to all ages, all walks of life.

Meanwhile Una Hill McMullin of Wolfville, N.S., has been a mainstay at Gros Morne Theatre Festival, run by Theatre Newfoundland Labrador. From the local story of “The Wreck of the S.S. Ethie” to the Irish production “Fly Me to the Moon” to, most recently, Newfoundlander Robert Chafe’s “Tempting Providence,” Una has been a heartwarming, thought-provoking influence.

Ian Locke of Corner Brook has rooted himself firmly in the Corner Brook and area theatre community. His work with Gary Graham Academy has seen him teach, produce, direct and act in various shows. In addition, he has played a pivotal role with Gros Morne Summer Music, having co-written, directed and acted in the locally famous “Train Show,” performed at the historic site in Corner Brook’s Humbermouth area. He also has contributed as an actor to productions by the community theatre group Off-Broadway Players, as well as an interviewer for “Stage Door,” an arts program on Rogers Cable.

Sheldon Downey of Mount Pearl, N.L., Opera on the Avalon, OBP, Beyond the Overpass, Shakespeare by the sea, LSPU Hall, Perchance.

Robyn Huxter of Steady Brook, N.L., played the lead in the inaugural Theatre Newfoundland Labrador production of “Our Fanny,” an extraordinary play celebrating the life and heroism of Frances Cluett, VAD.

There are so many more examples! If you would like to know more about the theatre program, visit www.grenfell.mun.ca/theatre.
SCHOOL OF SCIENCE AND THE ENVIRONMENT

DR. MICHELE PIERCEY-NORMORE
DEAN, SCHOOL OF SCIENCE AND THE ENVIRONMENT

“The School of Science and the Environment is home to a powerful combination of researcher expertise in the Environmental Policy Institute (EPI) and the Boreal Ecosystem Research Initiative (BERI). These researchers contribute to knowledge mobilization, informing government, industry and NGO policy development with a science based approach to boreal forest, agriculture and agrifoods issues. The School is well positioned to provide meaningful and leading-edge research and education, at the graduate and undergraduate levels, for the people of NL and beyond.”
Climate change and high rises

DR. ROZA TCHOUKALEYSKA

How does climate change affect coastal communities in Newfoundland and Labrador? Dr. Roza Tchoukaleyska, assistant professor, environment and sustainability, set out to explore that through a symposium titled Coastal Communities in Changing Climate: Impacts, Challenges, and Solutions for Gros Morne.

The initiative, funded by the Social Sciences and Humanities Research Council (SSHRC), was an outreach program held in Corner Brook and Rocky Harbour. The event brought together researchers, practitioners, and community members from across Canada to exchange and extend current knowledge on the impacts of climate change on coastal communities.

“Through this event we built new synergies that allowed us to grow our understanding of the intersections between climate change modeling, socio-economic impacts and infrastructure requirements,” said Dr. Tchoukaleyska. “Our aim is to create a venue for discussing adaptation options, tools and techniques and to build a framework for innovative solutions.”

Dr. Tchoukaleyska is hopeful that the symposium and resulting website will serve as a public forum for discussing climate change adaptation strategies and will strengthen knowledge networks in Newfoundland.

Another SSHRC grant, a three-year Insight Development grant, is allowing Dr. Tchoukaleyska to investigate the impact of high-rise revitalization on suburban public spaces in Canada and France.

“The purpose is to look at public space and high-rise neighbourhoods,” said Dr. Tchoukaleyska.

While her work is theoretical, ultimately the question is how public space is defined. With respect to social housing districts, for example, she said, “the question was how do we define the public? How does the city work with this notion? And what are the shortcomings of how we understand the public and how that changes in terms of whether it’s a social housing district, a city centre district, a sub-urban district or a rural district?”

In 2018 Dr. Tchoukaleyska was awarded the Fogo Island Fellowship – funded by Memorial University and the Shorefast Foundation. And most recently, she has been a collaborator in the food loop project on the southwest coast, funded by the Harris Centre’s Thriving Regions project.

“This research has to do with circular economies and food groups,” said Dr. Tchoukaleyska, who is working with Drs. Raymond Thomas and Bonnie White on the project. “We are looking at how one entity can be used in different settings. So, in our case we are looking at moose. Moose hunting is very important to the southwest coast.”

Aspects being investigated in this project include lipids that could be used in pharmaceuticals, as well as how cultivating moose relates to agricultural histories and heritage.

“I will look at stories around moose and how we can develop tourism around that,” she said, adding that an entire economy could be created around one product.
Several projects conducted by Dr. Jianghua Wu and his team focus on a concept everyone on the planet is familiar with: greenhouse gases.

“The goals of our work are, one, to find out how the boreal peatland ecosystems respond to agricultural drainage and climate change in terms of carbon cycling and greenhouse gas emissions and to use the empirical observation and measurements to feed into the process-based ecosystem model that will help us predict how boreal peatlands work in the projected future; and, two, to look into a way for which we can increase the forage crop production in NL while mitigate greenhouse gas emissions,” explained Dr. Wu.

He has conducted research in four main areas over the last few years:

1. Examining the effects of agricultural drainage on carbon cycling and greenhouse gas emissions in boreal peatlands;
2. Studying the effects of warming and nitrogen fertilization on greenhouse gas emissions and how these effects are modulated by vegetation composition;
3. Investigating the effects of different levels of fertilizers on forage grass production and greenhouse gas emissions in boreal peatlands;
4. Examining the effects of biochar applications on soil fertility, forage crop production, nitrate losses and greenhouse gas emissions.

“So far, we have six papers published in the top-tier journals from these research projects,” he said. “One of the papers was published in Communications Biology, a satellite journal of Nature.com, and two were published in Agricultural and Forest Meteorology, the top journal in forestry. Two project reports were submitted to the provincial government, and three poster presentations were made at conferences.”

Dr. Wu received a Discovery Grant from NSERC, a grant from Memorial University’s seed fund, a Growing Forward 2 grant (a federal/provincial partnership) and funding from the Canadian Agricultural Partnership program for this research.

“In addition to our research at Grenfell Campus, I have been collaborating with my colleagues in China to study the carbon cycling and greenhouse gas emissions in lakes in China and peatlands in China,” he added. “My collaborators in China are from Chengdu Institute of Biology, Chinese Academy of Sciences; Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences; International Centre of Bamboo and Rattan; Northeast Normal University; and South China Normal University. I have co-authored with my collaborators to publish six papers in top-tier journals.”
Food security meets climate change

Dr. Adrian Unc and a team of Grenfell researchers and collaborators from the UK and China have had their work published in the well-respected Scientific Reports journal (nature.com).

The focus of the article is their work on how climate change is affecting food security. “Food security in an environment of increased uncertainties in the current agricultural regions coupled with a warming of the North raises the question of a possible shift of at least some agricultural activities into the boreal regions, globally,” said Prof. Unc, who developed the project and assembled and led a Grenfell team (Myron King, Dr. Daniel Aldorff, Dr. Lakshman Galagedara), with collaborators from the University of Leeds (Prof. Joseph Holden) and Xi’an University of Science and Technology (Dr. Pengfei Li).

Driven by Grenfell’s School of Science and the Environment, the Boreal and Ecosystems Research Initiative (BERI) and the Environmental Policy Institute, the project examines the likelihood for climate change to lead to expansion of agricultural activities, a question most current for Newfoundland and Labrador.

“While in our province the expansion is driven by immediate food security concerns, the long-term sustainability of agriculture here and elsewhere, under similar conditions, is critically dependent on our understanding of the environmental conditions,” said Dr. Unc. “To assess the extent to which climate supports such developments we carried out what is, to date, likely the most detailed assessment of climate change in the boreal region from the point of view of agricultural feasibility.”

The team analysed the patterns of climate change in the northern boreal and near-arctic region integrating crop relevant temperature and water availability analyses.

Together with Drs. Lakshman Galagedara and Mumtaz Cheema of BERI, Dr. Unc is also examining connections between dairy waste and agricultural production in collaboration with New World Dairy, assessing the possible utilisation of anaerobic digestate from the dairy liquid waste stream and its nutrient value in greenhouse production. Shown from left to right are Vanessa Manuel (MSc BEAS), postdoctoral fellow Dr. Nadeem Muhammad, Emmanuel Ikumoinin (PhD Envt. Sci.), and Muhammad Faran (MSc BEAS).
Health benefits of moose and caribou

A study of moose and caribou meat and moose antlers has uncovered previously unknown benefits of these products. A study out of the Grenfell Campus Functional Foods Laboratory points to the fact that caribou meat and antlers are rich in functional lipids (fats) which are potentially useful to treat a number of conditions.

The Grenfell Campus Functional Foods Laboratory officially opened its doors on Feb. 12, 2019. The functional foods lab includes computerized sensory analysis systems and softwares with multiple lighting and video recording capabilities, freezers and coolers, small food processors, specialized instrumentation for testing food properties, small equipment for food preparation (vacuum-package machine, temperature/energy controlled microwave, sous-vide machine, slow cooker); as well as a cryo-microtome for producing thinly sliced samples for spatial, qualitative and quantitative nutrient or contaminant analyses.

The functional foods sensory research laboratory is integrated within Grenfell’s Boreal Ecosystem Research Facility and has unique analytical capacity to discern the chemical determinants of consumers’ sensory perception of taste, aroma, texture, colour, overall acceptance and preferences for the evaluated food. Work in this facility and the functional foods research program has included a study of moose and caribou meat and moose antlers that has uncovered previously unknown benefits of these products, the use of natural antioxidants from local wild berries to improve the shelf life and sensory qualities of locally made natural soaps, and assessing the bioactivities of various functional ingredients in brain health outcomes using animal and cell models.

A recent study by the Dr. Raymond Thomas research group points to the fact that caribou meat and antlers are rich in functional lipids (fats), which are potentially useful to treat a number of conditions. In this study, which was conducted by the Dr. Raymond Thomas research group, with co-authors Dr. Nicole Pham, Dr. Natalia Prieto Vidal, Dr. Karen M. Doody and the students Ryley P. Pumphrey, Charles F. Manful and Tiffany A. Fillier, the researchers identified functional lipids in moose and caribou meat and antlers that could go a long way towards possibly supporting the treatment of a number of health conditions.

"Fatty acid esters of hydroxy fatty acids (FAHFA), diglycerides (DG) and monoaclearyl diglycerides (MACDG) are gaining interest as functional lipids in pharmaceuticals and functional food formulations for managing and treating metabolic or inflammatory diseases," said Dr. Thomas. "Increasing access to and knowledge of the presence of these functional lipids in foods will enhance their intake in the diet with potential implications in improving personal and population health."

According to the study, MACDG recently was used as the active ingredient in pharmaceuticals and functional food composition for preventing and/or treating rheumatoid arthritis, treating sepsis, inflammation, and asthma. Furthermore, the ability of DG to suppress risk factors for diabetes and cardiovascular diseases – such as obesity and an excess fats in the blood following the consumption of high fat meals– has resulted in the incorporation of DG in many food products. Furthermore emerging evidence suggest FAHFAs may have benefits at low concentrations in managing or treating diabetes and inflammatory diseases.

The results of the study have since been published in “Molecules,” a leading international peer-reviewed open access journal of chemistry, and will be the cover story for the print edition.

The functional foods research group at Grenfell Campus, Memorial University, is aiming to study the bioactivity of the functional lipids discovered in moose and caribou meat or antlers in different food, cell and animal disease models.

Dr. Thomas has led several research projects related to plant, health, food and agriculture sciences. He has received funding for his research from the Canadian Agricultural Partnership and Seed, Bridge and Multidisciplinary Fund, among others. Dr. Thomas currently holds four NSERC grants as principal investigator or co-principal investigator, as well as several grants with industry, provincial and federal government, totaling more than $3.5M since joining Memorial University in 2014. Dr. Thomas and his research group published in journals such as Molecules, Food Research International, and Nature Scientific reports in 2018.
Research in Gros Morne

DR. CHRISTINE CAMPBELL

Gros Morne National Park offers a wealth of experiences for Grenfell Campus’s students – not just for outdoor activity, but for research as well.

In fact, over the last 20 years, students enrolled in undergraduate environmental programs have conducted almost 30 separate research projects within the boundaries of the park.

These data have been collected by Dr. Christine Campbell, a professor of environmental science within the School of Science and the Environment.

“I wanted to raise awareness of the research that undergraduate students have conducted in Gros Morne over the last 20 years,” said Dr. Campbell, who added that as Grenfell Campus moves towards greater collaboration with Gros Morne National Park, she thought documenting past capacity was important.

In fact, from 2000 to 2009 Parks Canada’s science director in GMNP together with the Gros Morne Co-operating Association would issue internships so that undergrads in environmental programs could conduct relevant research, she said. Research subjects for environmental science students included biodiversity issues such as freshwater ecology of plankton, fish and frogs, and terrestrial studies of birds, bats and biting flies Environmental studies students focused on sustainable area tourism and the environmental impacts of snowmobiles.

“The interest from the park is what made it work,” said Dr. Campbell, who supervised or co-supervised a number of the students involved. “The ability to do research is a great advantage – the park is so close to Grenfell. It’s an amazing experience, and many of these students have gone on to do wonderful things.”

Today, community leaders and stakeholders from Grenfell, Parks Canada, the Gros Morne Co-operating Association and government agencies are engaged in developing other opportunities and how the diverse research conducted by Grenfell faculty and students has the potential to help with long-term planning.

To that end, Dr. Campbell is developing a list of related research that could help facilitate the process, such as initiatives that focus on waste management and climate change.

“We’re asking, ‘What kind of science projects does the park want to focus on?’” she said.

In the meantime, undergraduate students continue to conduct fieldwork in the park and the park continues to be supportive of this activity. Anyone interested in reading the students’ theses will find them bound in Ferris Hodgett Library, Grenfell Campus, or see the posters outside AS285 and AS2026.

Subatomic physics
Dr. Svetlana Barkanova

Canada is well-known around the world for its contribution to subatomic physics research, and Grenfell’s new physics program is now allowing its students and faculty to contribute to cutting-edge international projects. One of such projects, MOLLER (Measurement Of a Lepton-Lepton Electroweak Reaction), involving collaborators from Canada, USA, Germany, Italy, France and Mexico, is looking for new particles and interaction to explain the Dark Matter in our universe, among other puzzling physics phenomena. At Grenfell, we have contributed to this effort by evaluating electroweak radiative corrections, with a never-before-achieved precision made possible by our novel computing methodology.

In collaboration with Dr. A. Aleksejevs and the Canadian MOLLER group, we received $614,000 in NSERC grants allowing us to support four graduate students and several undergraduate research assistants. The first student to do a PhD in subatomic physics at MUN, Shihao Wu, started in 2016. In 2018, after $35M of funding for the MOLLER project was approved by the US Department of Energy, the Canadian group has developed a $2.4M CFI application, to be submitted in 2019.

Another new exciting project our physics group started in 2018 is a novel partnership program blending research and science outreach. By building on complimentary expertise and resources at MUN’s Grenfell Campus, the Qalipu First Nation and Parks Canada, we have developed a long-term scientific and cultural outreach program for youth in the Western Newfoundland region, especially rural youth, girls and Indigenous students. The project was awarded $10,000 by MUN’s Public Engagement Accelerator Fund and $34,000 by NSERC PromoScience.

Explore Scholarly contributions and grants and funding metrics
Faculty at the Western Regional School of Nursing are committed to broadening the school’s research and scholarship agenda, including increasing research embedded in primary health care within rural and remote settings. Faculty and students continue to collaborate with key stakeholders to increase health related research with the goal of improving the health and wellbeing of individuals, families, groups, and communities within the province of Newfoundland and Labrador. We have an enthusiastic faculty team who work diligently to expand our research and scholarly engagement, and strive to inspire the same thirst for knowledge in our students.
A major challenge in nursing practice and education is the lack of clinical placements available to students.

This is particularly noticeable in specialty nursing practice areas like pediatrics, where hospital stays are very short and patients have complex needs. A literature review conducted by principal investigator Daphne Kennedy and team members Peggy Colbourne, Erica Hurley and Dawn Pittman found that nurse educators need to foster student abilities to think like nurses and apply good clinical judgment in the care of highly acute clients with complex needs.

"By incorporating simulations into instructional design, nurse educators can promote the weaving of concepts and information into real-life situations," said Kennedy. "This provides a contextualized learning experience that is meaningful, leads to deeper learning, and enhances critical thinking and nursing practice, as noted by Adamson, 2015."

As part of the baccalaureate of nursing program at Western Regional School of Nursing (WRSON), students are required to complete 64 hours of pediatric clinical. Unfortunately, due to the changing dynamic of pediatric healthcare, learners often do not have essential learning opportunities.

Educators at WRSON previously developed a simulated clinical experience, "pediatric simulations" in the hopes of providing a consistent, essential learning opportunity to all graduates of the program, she said.

"Evaluations of past simulations have been positive and there is evidence to support inclusion of further simulations in this clinical course," said Kennedy. "Additionally, although nursing students at WRSON have been provided with one pediatric simulation, we would like to introduce additional simulations to enhance their learning."

The aim of the program evaluation was to better understand and enhance the learning experiences of the students in the pediatric clinical.

"If learning experiences are to be effective, they must be meaningful to the learners," said Kennedy, adding that the study would provide insight into learner experiences during the pediatric simulations.

The study concluded with the development of different learning models, employing the most effective, standardized techniques. The study was made possible through a partnership with Western Health and expert faculty.
Ethical conflicts: a study of patient and family experiences

NURSE EDUCATOR ANNE WADHWA

Ethical conflict can have detrimental effects on one’s emotional and physical health; conflict can generate feelings of stress and anxiety, compromise relationships, and lead to fragmented care that can jeopardize client safety and well-being.

Nurse educator Anne Wadhwa conducted an exploratory study titled Ethical Conflicts in Community Health Care: A Qualitative Study of Individual and Family Experiences to increase understanding of the types of ethical conflicts encountered by community health care recipients and their family members.

The study, conducted during her nursing graduate studies under the supervision of Dr. Caroline Porr, was part of a larger study at Memorial University that explored the ethical conflicts of nurses, physicians, clients, and family members; conflict management strategies; and the structure, function, and effectiveness of community ethics committees and services. Ms. Wadhwa found that ethical conflicts experienced by individuals and families involved issues related respect and dignity, privacy, and accessibility to care.

“My study findings are useful for informing nurses and other key stakeholders in community health care settings about the kinds of ethical conflicts that clients and their family members experience and the strategies used to manage their ethical concerns,” she said, adding that the study provides a strong foundation for future nursing research that involves examination of ethical conflicts in the community and the identification of effective measures to promote client and family health and well-being.

Employment-related mobility

NURSE EDUCATORS PAM MOORES, TRUDY READ & HOLLY LEDREW

It’s a reality for many families in Newfoundland and Labrador that fathers work away. Sometimes they leave for months at a time and in other cases it is for shorter, more frequent rotations. This way of life may secure steady, reliable income for the family, but what are the implications on the ones these fathers leave at home?

For decades, Newfoundlanders and Labradorians have been going away from home for work and little is known about the impact of such separation on the new mothers who remain at home. Western Regional School of Nursing faculty members Pam Moores and Trudy Read are researching the impact of employment-related mobility on new mothers on the island portion of rural Newfoundland and Labrador (NL).

“The focus of this phenomenological study was to discover how new mothers in rural communities made sense of the experience of their partners being away for extended periods of time for work,” said Ms. Moores. “The consequence of the intermittent absence of the fathers is that female partners ultimately have sole responsibility for the family and household for extended periods of time. Early days and months of mothering can be very overwhelming - a feeling that can be compounded by limited family support.”

With funding support from Western Regional School of Nursing and the Registered Nurses Union of Newfoundland and Labrador, nurse educators Ms. Moores and Ms. Read, and co-investigators Holly LeDrew and Moira O’Regan-Hogan, interviewed 19 new mothers, with children under three years of age, whose partners worked away more than 30% of the year. The research team analyzed the data and is in the process of writing for publication of the study. The researchers are all former community health nurses and are interested in learning more the lived experiences of these women, based on what they were hearing from nurses currently in practice in many rural areas of the province.

“We heard from women who are trying to balance caregiving of children, manage a household, and cope with being a lone parent for extended periods of time,” said Ms. Moores.

The outcomes of this research was broadly disseminated through conferences and workshops, including the at the “On the Move Partnership” Virtual Conference (2016), which was broadcast from Grenfell Campus, Memorial University to locations across the country.

“The narratives are relevant and crucial for nurses, health care providers and policy makers to understand the impact of commute work on families,” Ms. Moores added. “This information is especially important to community health nurses who strive to meet informational and support needs of new mothers.”
Student research: Understanding clinical settings

GABRIELLE DEVEAU AND SHELBY THOMAS

For Gabrielle Deveau and Shelby Thomas, the Western Regional School of Nursing was a place to explore research, practice, and the interconnections between the two. As students, this activity ranges from research for class papers to research activity aimed at understanding practical clinical settings.

Through their papers, Thomas and Deveau have been able to explore topics such as the lack of medical resources in Indigenous and rural communities, while at the same time coming to understand the role of research in setting best practice policies at larger medical institutions.

In addition, students have the responsibility of understanding their clients’ medical histories prior to their shifts, and must research their patients’ records and conditions before going on clinical shifts.

“With every clinical rotation that you do, there’s a requirement that each student has to find a current research article that was done by nurses, for nurses, relevant to any topic that was relevant to what you learned on the floor,” said Deveau.

A frequent theme in her group, she explained, was diabetic foot ulcers, a common phenomenon.

“One student found an article that showed the difference between patients that were doing little foot exercises for diabetic foot ulcers, versus those who had diabetic foot ulcers but weren’t doing the exercises, how extreme the healing processes were, and how much those movements helped their feet,” she said.

This research approach not only helps the students to assist with care, but broadens their medical knowledge - they identify new techniques and practices through studying specific cases.
A growing PhD presence

The population of PhD students at Grenfell Campus is growing. Drawn by the expertise of our faculty, students enrolled in PhD programs at St. John’s Campus are choosing to complete their research here at Grenfell. In 2018, at least 20 PhD students were supervised by Grenfell faculty, working on projects ranging from agricultural sciences and subatomic physics to community sustainability and nursing.

Grenfell Campus held its first PhD defence in 2017. Dr. Mei Wang, a student of the Environmental Science program based in St. John’s, conducted her research in western Newfoundland under the supervision of Dr. Jianghua Wu (Memorial University, Grenfell Campus). Her PhD dissertation is titled, From a boreal bog to an abandoned peatland pasture: The effect of agricultural management and abandonment on the greenhouse gases fluxes, carbon balance and radiative forcing of a boreal bog in western Newfoundland, Canada. Dr. Mei Wang is now an associate professor at the School of Geographic Sciences, South China Normal University, Guangzhou, China.

Dr. Sarah Minnes, a student of the Interdisciplinary PhD program based in St. John’s, successfully defended her dissertation in 2018. Dr. Minnes was co-supervised Dr. Kelly Vodden (Memorial University, Grenfell Campus); Dr. Robert Scott (Memorial University, Grenfell Campus); Dr. Nick Novakowski (Memorial University, Grenfell Campus); and Dr. Maura Hanrahan (University of Lethbridge, formerly at Memorial University, Grenfell Campus). Her dissertation title was: Enhancing source water protection in rural regions: Exploring the role of capacity and collaborative watershed governance in rural Ontario. Both scholars have gone on to publish their work in journals such as Agricultural and Forest Meteorology, PLoS ONE, Canadian Water Resources Journal, Water, and Journal of Rural and Community Development.

Whether it’s to assess models for collaborative governance or to investigate the properties of a boreal bog, PhD students are finding a space for themselves at Grenfell Campus. And more graduate programs are on the horizon. A Master of Fine Arts Program (Visual Arts) began in May 2019 and several new programs are in the development stage, including a Masters in Management, a Masters in Applied Geomatics, Masters in Applied Literary Studies, Masters in Fine Arts (Theatre) and Grenfell’s first PhD program – PhD in Sustainability Science, followed by a proposal underway for a PhD in Boreal Ecosystems and Agricultural Sciences.
African leaders of tomorrow at Grenfell

RICHARD NYIAYWUNG

The African Leaders of Tomorrow (ALT) Scholarship commemorates the social justice and equity efforts of the late Nelson Mandela. The program is jointly funded by the Mastercard Foundation and Global Affairs Canada and is coordinated by the Canadian Bureau for International Education (CBIE). Through the program, young African professionals receive full scholarships to pursue a master’s degree in public administration, public finances, and public policy in Canada.

Since 2016, six recipients of the ALT Scholarship have chosen the Master of Arts and Environmental Policy (MAEP) program at Grenfell Campus, Memorial University to complete their studies. These scholars have come to Corner Brook from Zambia, Cameroon, Rwanda and Ghana.

Hailing from Cameroon, Richard A. Nyiawung joined the MAEP program in 2016. For his master’s thesis, he chose to focus on Transnational Governance of Fisheries certification schemes in Africa, under the supervision of Dr. Paul Foley (Environmental Policy Institute, Grenfell Campus).

“My experience as an ALT scholar in Canada directly aligns with and supports my career plan for back home. Focusing on ongoing fishery certification initiatives in Africa, I would like to acquire, share and learn from professionals about existing certification challenges from both sides of the Atlantic Ocean.”

Richard’s research got him an invitation to an expert consultative workshop on the formulation of a management strategy for inland fisheries and water bodies. The workshop was hosted by the African Union-InterAfrican Bureau for Animal Resources (AU-IBAR). He also presented at the 3rd World Small-Scale Fisheries Congress in Chiang Mai, Thailand.

Richard completed his thesis in 2018, titled: New environmental governance interventions in the Global South: fishery improvement projects in the African context. He is now a PhD student in the collaborative PhD program in Geography and International Development Studies at the University of Guelph under the supervision of Dr. Philip Loring.

For more on another of our ALT scholars, Sylvester Kong please click here.

The George River caribou hunting ban

JASON DICKER (MAEP)

Using integrated resource management and the Public Trust Doctrine to examine wildlife management practices in northern Labrador: a case study on the George River Caribou hunting ban.

The people of Labrador, especially the Inuit, rely on their surrounding resources to sustain themselves and their culture. In particular, the Labrador Inuit depended upon the George River Caribou Herd (GRCH), once one of the largest caribou herds in the world, to provide them with a staple food supply, nourishment, materials, and facilitate the intergenerational sharing of knowledge and important social norms, all of which are critical to life in Arctic and subarctic environments. This woodland caribou population, however, has declined by 99% over much of its range resulting in a hunting ban, and consequently, a cascade of impacts on the Inuit of northern Labrador.

Jason Dicker, a student of the Master of Arts in Environmental Policy (MAEP) program, is examining the impacts of this hunting ban through his master’s research. Jason is a recipient of Memorial University’s fund for Indigenous graduate students and is supervised by Dr. Stephen Decker. As management of wildlife in North America is to follow the Public Trust Doctrine—to manage wildlife in the public trust—this research helps bring the information of Inuit impacts into the discussion to help inform future best practices for more accountable, responsible, and locally responsive wildlife management efforts in the North.

“What I have learned since the start of my research project is that wildlife management practices, policies, and decisions made by those who have the power to maintain wildlife has to acknowledge those who rely on this type of resource—especially when it comes to Indigenous peoples,” says Jason. “This case study has provided me with invaluable knowledge, skills, and experiences from working with my graduate supervisor, relations with the Nunatsiavut Government, and funding opportunities from Tradition and Transition, internship training from the Torngat Secretariat, and most importantly, speaking with Inuit from my home in Nunatsiavut. It has been a privilege to communicate, research, and document the significant realities that Inuit in northern Labrador are facing in relation to the George River Caribou hunting ban.”

In July 2019, Jason started in a new position with the Nunatsiavut Government as Wildlife Manager. He works in the Renewable Resource Division and his subjects at the moment are primarily caribou, polar bear, and moose. “This new role in my career better suits the research project that I am finalizing this semester. I am looking forward to seeing where this position takes me and what I’ll learn along the way.”
Populations in transition

DARRIAN WASHINGER (BEAS)

Populations in transition: Student leader and Master of Boreal Ecosystems and Agricultural Sciences (BEAS) student studies how changes in vegetation impact bat activity in Gros Morne National Park.

Since their introduction to the Island in the 1900s, moose have become commonplace in Newfoundland diets and landscapes. The impact of these large herbivores on the natural environment is significant and, according to Darrian Washinger, may indirectly alter the activity of other mammals, like bats.

Darrian is a Master of Science student in the Boreal Ecosystems and Agricultural Sciences (BEAS) program. Working under the supervision of Dr. Erin Fraser, she is studying the relationship between moose-altered landscapes and bat activity in Gros Morne National Park. Darrian’s research is being supported through a funding agreement between Dr. Fraser and Gros Morne National Park.

Moose, like many large herbivores, can drastically change local vegetation. In Gros Morne, for example, the hyperabundant moose populations have precipitated the conversion of insect-disturbed forests into open meadows, also known as ‘moose meadows’. “We hypothesized that bats and insects would use moose meadows differently than regenerating or mature forest stands”, notes Darrian. “We predicted that reduced vegetation in moose meadows would result in lower insect biomass, subsequently, lower bat activity.”

To test this hypothesis, Darrian and Dr. Fraser acoustically monitored bats and collected nocturnal insects from four habitat types. They found that insect activity was significantly different among the habitat types, with moose meadows having the lowest insect biomass. However, contrary to their hypothesis, bat activity was not significantly among habitats.

To further explore their findings, Darrian and Dr. Fraser generated generalized linear mixed models to test the effects of three different sets of variables – vegetation, environmental, and insect – on bat activity. Findings here suggest that vegetation structure is the most significant driver of bat activity, given the data set. “This may still indicate that forest conversion by moose impacts bat activity”, explains Darrian. The next step for her research is landscape-level analysis using ArcGIS software.

Outside of her research, Darrian is an active member of the Grenfell Campus community. She is Volunteer Coordinator and President of the Grenfell Waste Management Committee (GWMC), advocating for sustainable and innovative waste management solutions. “Sustainable waste management is the center of my life on campus” she says.

Over the last two years, the GWMC has been instrumental in the development of recycling, composting and EcoBrick initiatives on campus. “We’ve diverted 43 pounds of plastic into EcoBricks. EcoBricks are being used as a reusable building material globally, so we’re tapping into a world-wide community initiative.” she explains. “The end goal for our EcoBricks is to build a structure, like a bench in the atrium, to show the plastic waste we’ve diverted.” The Grenfell Waste Management Committee has also established the Grenfell Green Fund. Money collected through recycling is contributed to the Green Fund and is accessible to any campus group hoping to host an event that is focused on sustainability.
In 2018 Grenfell Campus, Memorial University, put the finishing touches on its Master of Fine Arts in visual arts (studio).

The program involves an on-campus intensive during May and June of the spring semester followed by fall and winter terms completed in students' home communities or at another campus of Memorial University with distance learning supervision and contact. Students return to Grenfell Campus for a second on-campus intensive next spring, with their final projects being presented during the second fall or winter term at Grenfell Campus.

“Our program is shaped by graduate students who seek a flexible delivery model and wish to engage in graduate research at more than one location: in their home and/or at a number of Memorial University Campuses or locations,” said Cameron Forbes, assistant professor of painting and drawing and graduate officer of the MFA in visual arts (studio).

The first five students come from many different walks of life:

Lorna Conquergood of Saskatoon, Sask., has a background in teaching visual arts in the school system as well as acting as a program guide for the Remai Modern museum in Saskatoon. She traditionally works with oil paint, producing large scale paintings but is also delving into smaller scale sculptures. She hopes to explore place-based ideas of home, and “what makes a home.”

Ardalan Hamedi of Iran has an architecture engineering background. He has employed diverse materials such as brick and concrete while using painting, sketching, documentary and photography to connect with architecture. He plans to continue this practice by creating a photographic installation related to architecture and design. Newfoundland and Labrador appealed to Ardalan because of the similarities to his feelings of living in Iran, which politically, is extremely isolating. He said:

“It’s interesting to have this experience – the lifestyle inside one island.” He plans to make something here that is local, using the “arts of this land” to reflect on the province’s cultural individuality.

Chantal Pennell, meanwhile, hails from Curling in Corner Brook, NL. Following her graduation from Grenfell Campus with a BFA (visual arts), she ventured to Ontario to pursue an MFA, but when she heard that Grenfell’s MFA was off the ground, she knew “I needed to come back.” Through the exploration of her Mi’kmaw background, she hopes to make a connection with the environment through her drawings, photography, and sculptures.

Yalitsa Riden swept onto the island from the south shores of K’jipuktuk, N.S., to continue exploring their practice, which had been focused on digital and celluloid film making/playing throughout their BFA at NSCAD University. Yalitsa’s interests lie in exploring and experimenting with notions of queerness, representation, and political criteria through entertainment wrestling. While encouraged to apply overseas, Yalitsa found the idea of Newfoundland and Labrador appealing, saying: “I was drawn to the culture, people and isolation of the island and knew immediately this is where I wanted to be.”

Finally, Anie Toole of Ottawa, Ont., uses an interesting combination of math and craft to create patterns and sequences to construct 3-D textile weavings. She said she researches the “representation of weaving,” and our relation to cloth. Explaining that while we may not realize it, weaving is everywhere. Her research in handweaving is a mixture of textile history and computer programming.

For more information about the MFA, check out www.grenfell.mun.ca/mfa.
Sharing our research

Explore the variety of publications and artistic contributions by our faculty from School of Science and the Environment, School of Arts and Social Sciences and School of Fine Arts. Depending on the day you walk into the Office of Research and Graduate Studies, you could be greeted by any number of faculty, staff and grad students bustling about and getting stuff done!

The projects undertaken by the research office are just the tip of the iceberg: we have more than 100 faculty members who are conducting research in our three schools: Arts and Science, Fine Arts and Science and the Environment. And then there’s the work being done by faculty at our affiliate, Western Regional School of Nursing. Many examples of faculty research are highlighted in this report. In addition, our office documents research outputs in INSIGHT-FELL and INSIGHT-BLOG.

We also share our research with each other – to keep abreast of what our colleagues and students are accomplishing. For instance, Friday Light Informal Research Talks (FLIRT) have been bringing the work of Grenfell Campus researchers to the larger campus community since 2016. The initiative has also been engaging off-campus researchers to share their crucial research discussions.

Started by Drs. Julie Sircom and Nadolny and now co-chaired by Grenfell Dr. Nadolny and Dr. Garrett Richards, FLIRT is a multi-disciplinary series of talks that are meant to be informal in nature and allow those on campus to stay informed of each other’s research, initially between the disciplines of social sciences and arts. The initiative ash since expanded, making the presentations representative of all schools at Grenfell Campus and Western Regional School of Nursing.

“After a couple of years at Grenfell I realized I didn’t know what many of the other researchers in arts on campus were doing,” explained Dr. Nadolny. “I got in contact with Julie Sircom, who was running a similar set of talks for those in science and we decided to combine those to make FLIRT.” A full list of past FLIRT talks is available here: FLIRT 2016-2017, FLIRT 2017-2018, FLIRT 2018-2019.

Meanwhile, during the summers, our story sharing doesn’t come to a halt: the Research Office organizes Summer Research Student Seminars, where undergrad and grad students have an opportunity to share the work they conduct as research assistants to our faculty. A list of those topics is available here.

“I think it’s neat that FLIRT provides a space for researchers from other places,” said Dr. Richards. “I think it’s important that researchers on campus know that it is there and operates on a regular schedule.”

Here’s a sample of some of the FLIRT talks since the program began:

**2016-2017**

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Topic</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 23/16</td>
<td>DR. GEOFF RAYNER-CANHAM</td>
<td>Chemistry and Fruit Culture</td>
<td>SSE</td>
</tr>
<tr>
<td>Nov. 18/16</td>
<td>RENATE POHL</td>
<td>Lighting the Void: Staging Holograms for Rot Grids and Astronauts</td>
<td>SOFA</td>
</tr>
<tr>
<td>Feb. 10/17</td>
<td>D’ARCY WILSON</td>
<td>Protect Your Love: Renegotiating Relationships to Wildlife Through a Visual Arts Practice</td>
<td>SOFA</td>
</tr>
<tr>
<td>Feb. 17/17</td>
<td>DR. EDWIN BEZZINA</td>
<td>Shakespeare’s Fans: Enthusiasm, Authority and Ownership in Contemporary Shakespeares</td>
<td>SASS</td>
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**2017-2018**

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Topic</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 22</td>
<td>DR. JOHN BODNER</td>
<td>The Continued Relevance of Vanck Friel’s Film “The Viking: Reflections of Folklore, Film and Placemaking”</td>
<td>SASS</td>
</tr>
<tr>
<td>Oct. 27</td>
<td>DR. TELEX NGATCHED</td>
<td>Device-to Device Communication in 5G Cellular Networks</td>
<td>SSE</td>
</tr>
<tr>
<td>Nov. 24</td>
<td>HEATHER LEIER</td>
<td>Young Lady</td>
<td>SOFA</td>
</tr>
<tr>
<td>Dec. 1</td>
<td>DAVID PLEMING &amp; BEN ZENDEL</td>
<td>Can Music Lessons Improve Hearing Abilities in Older Adults?</td>
<td>SASS/MED</td>
</tr>
<tr>
<td>Feb. 9</td>
<td>DR. JOHNATHAN POPE</td>
<td>Shakespeare’s Fans: Enthusiasm, Authority and Ownership in Contemporary Shakespeares</td>
<td>SASS</td>
</tr>
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**FALL 2018**

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Topic</th>
<th>School</th>
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<tbody>
<tr>
<td>Nov. 30</td>
<td>IAN WALKER ENSU 4950 student</td>
<td>Promoting Outdoor Physical Activity (Green Exercise) Over Indoor Physical Activity</td>
<td>SSE</td>
</tr>
<tr>
<td>Nov. 23</td>
<td>BRENNAN LOWERY Grenfell PhD student</td>
<td>Stats and Stories: Using Community Data to Change Narratives About Sustainability in Rural Newfoundland</td>
<td>SSE</td>
</tr>
<tr>
<td>Nov. 9</td>
<td>DR. RAYMOND THOMAS</td>
<td>Diet Effects on Brain Health</td>
<td>SSE</td>
</tr>
<tr>
<td>Sept. 28</td>
<td>BRAD HARDING</td>
<td>How Does our Brain Recognize “Sameness” so Fast?</td>
<td>SASS</td>
</tr>
</tbody>
</table>
Research funding metrics were generated using data provided by Research Grants and Contract Services sourced from ROMEO entries. Applications by fiscal year were tracked based on project start date provided by ROMEO users (fact-checked with application date), with success rates based on amount requested compared to amount awarded. In some cases, incomplete ROMEO entries were supplemented with internal fact-checking against research account records and other sources. Spending figures provided by the Administration and Finance Office.
RESEARCH FUNDING

number of GRANTS 344 2014 2019

internal, tri-council, other, federal, provincial, industry, not-for-profit, associations, other

SCHOOL OF ARTS AND SOCIAL SCIENCE 75 approved grants
research funding: $1,327,557

SCHOOL OF FINE ARTS 37 approved grants
research funding: $637,755

SCHOOL OF SCIENCE AND THE ENVIRONMENT 196 approved grants
research funding: $5,926,128

WESTERN REGIONAL SCHOOL OF NURSING 3 approved grants
research funding: $150,647
Faculty awards and recognition

Jennifer Buckle and Sonya Corbin Dwyer had an article selected for inclusion in celebration of the 20th Anniversary of the International Institute for Qualitative Methodology (IIQM) Special Issue featuring updates on the top 20 papers (a combination of most downloaded and/or most cited) from the past 20 years: Corbin Dwyer, S., & Buckle, J. (2018). Reflection/Commentary on a Past Article: “The space between: On being an insider-outsider in qualitative research.” International Journal of Qualitative Methods (Special Issue: Reflections & Updates on a Top-20-in-20 Article), 17(1-2), doi: 10.1177/1609406918788176.

Retired visual arts and professor emeritus Barb Hunt landed the cover of the May 2018 Journal of Canadian Studies with her exhibit Fodder, altered worn army uniforms, 2010. Also in 2018, she won the Visual Arts Newfoundland and Labrador/CARFAC Endurance Award.

Congratulations to Grenfell Campus, Memorial University Visual Arts Program Professor Marlene MacCallum who received the Long Haul EVA Award for lifetime achievement for her substantial contribution to the visual culture of Newfoundland and Labrador. In 2016, public services librarian Crystal Rose received the Dalhousie University School of Information Management’s Outstanding Alumni Award.

Dr. Roselyne Okech, associate professor, attended the Global Conference on Business and Finance in Costa Rica, and received multiple honours for her paper, titled “Marketing Wine Tourism in Newfoundland: Case Study of Kosher Wine.”

Prof. Ingrid Mary Percy of the visual arts program, was named the 2018 winner of Memorial University’s Fogo Island Fellowship. Ingrid was also accepted to the Cultural Leadership Program at the Banff Centre.

Dr. Roza Tchoukaleyska, professor of environment and sustainability, was named the 2018 winner of Memorial University’s Fogo Island Fellowship.

In 2017 Dr. Jacqueline Wash was named the vice-chair of InnovateNL, an initiative of the provincial government to foster greater innovation and accelerate business growth in Newfoundland and Labrador.

As of December 2018, the 2013 paper by Dr. Jianghua Wu (“The impacts of climate change and human activities on biogeochemical cycles on the Qinghai-Tibetan Plateau”) received a highly cited recognition from Web of Science. The paper received enough citations to place it in the top 1% of the academic field of Environment/Ecology.

Student awards and recognition

Grenfell Campus has had seven graduate students receive support from Memorial University’s recruitment fund for Indigenous graduate students.

In 2018, Grenfell had eight NSERC undergraduate student research awards in Computational Mathematics, Environmental Science, General Science, Physics, and Psychology.

During 2016-2018, 13 graduate students were awarded the Fellow of the School of Graduate Studies.

2016 - Grenfell brought home three of the five awards offered at the Aldrich 2016 Conference. Sean Manners received first place in the poster presentation for his research on Climate Change Policy: Creating Space for Environmental Ethics and Human Rights. Conor Edwards and Leanna Butters tied for first in the Social Science and Humanities oral presentation. Conor’s research applied human dimensions research to a proposed European Bison reintroduction project in the Netherlands and, Leanna’s research will look at fly-in/ fly-out mobility in source hub communities and its potential implications for community sustainability. The third win was for Rebecca Brushett who placed first in the Connecting Research and Public Engagement oral presentation. Her research will assess the marine and coastal management areas off Western, NL using geospatial analysis paired with expert and stakeholder participation.

2018 - Abdul-Rahim Abdulai’s research at Grenfell Campus landed him a prestigious scholarship at the University of Guelph as one of four recipients of an Arrell Food Institute graduate scholarship, valued at $50,000. He is undertaking a PhD in Guelph’s Department of Geography, Environment and Geomatics examining the social disruptions of new and emerging agricultural technologies within food systems.
Chaim Andersen presented at the Western Conference on Science Education about her research on melding culture and science and eliminating the separation between Inuit traditional knowledge and scientific knowledge.

Visual Arts Program student Lauren Brinson was the Newfoundland and Labrador regional winner of the BMO 1st Art! 2017 Invitational Student Art Competition.

Visual Arts Program student Emma Burry was the Newfoundland and Labrador regional winner of the BMO 1st Art! 2018 Invitational Student Art Competition.

While a visual arts student at Grenfell, alumna Emily Critch received several awards, including: in 2018, the Reginald Shepherd and Helen Parsons Shepherd Award; in 2017, the Ellen Rusted Award in Print Media; and in 2014-16, the Hazel Cryderman-Wees Foundation Scholarship.

MAEP student Conor Curtis was awarded a SSHRC Canada Graduate Scholarships-Master’s in 2016.

PhD candidate Tiffany Fillier was chosen for a hot topic booklet at the Society for Neuroscience (SFN) conference of 2018; she travelled to San Diego to present her research in poster form.

Visual Arts Program student Lucas Morneau was the Newfoundland and Labrador regional winner of the BMO 1st Art! 2016 Invitational Student Art Competition.

2017 - Hope Olusanya winner in the poster presentation category based on his thesis research, titled: Assessing the climate change vulnerability of freshwater fish species in Newfoundland and Labrador.

Temitope Onifade, an MAEP graduate, won the Scholarship for Energy and Natural Resources Law of the International Bar Association, funded by the Section on Energy, Environment, Natural Resources and Infrastructure Law. Temi’s award supported his further graduate work at the University of Calgary, where he was appointed to work under the Stikeman Elliot fellowship in Corporate Law and as an International Research Intern at the Artis International Research and Risk Modelling, USA. The Stikeman Elliot fellowship is a grant awarded to the University of Calgary Law School by Stikeman Elliot LLP for funding relevant research projects supervised by a professor and conducted by a student, while the Artis International Internship is an interdisciplinary programme designed to recruit the brightest young scholars into an international research network. Temi’s work under the Stikeman Elliot fellowship was to research corporate security risk management policies in the extractive sector and potential remedies to resource violence.

Jasmine Pinksen received the K.C. Irving Environmental Science Centre Award, Science Atlantic-Environment conference held recently at the University of New Brunswick in Moncton, 2017.

In 2016, Dawn Pittman was awarded the Terra Nova Aboriginal Doctoral Student Scholarship, the Anna M. Curren Doctoral Scholarship in Nursing, and the Margaret D. McLean Scholarship.

Mallory Snow received two research scholarships in 2018 to study theoretical subatomic physics – one from the Canadian Institute of Nuclear Physics (CINP) and another from Natural Sciences and Engineering Research Council of Canada (NSERC).

Heather Spicer received the second place award for undergraduate oral presentation, 2017.