



## Strategic Research and Creative Activities Plan 2016

Mount Allison University is known for excellence in teaching and high quality, well-rounded liberal arts and sciences education for undergraduate students. At the same time, our researchers are well-respected for their research and creative contributions in the arts, humanities, social sciences and sciences, and in the fine arts, music, and drama. Combined excellence in teaching and research provides exceptional experiential learning opportunities for our students.

This plan serves two purposes. First, it identifies strategic objectives and action items to increase the capacity for research and creative activity success at Mount Allison University. Second, it identifies strategic areas of research intensity and emphasis which guide future nominations and appointments in the Canada Research Chairs (CRC) program, and which justify future investments through the Canada Foundation for Innovation (CFI).

### Mission

The creation of new knowledge - ideas, theories, practices, solutions, works of inspiration - distinguishes universities from other forms of education and learning. **Mount Allison University is committed to excellence in research and creative practices, to the support of our researchers and students in the pursuit and dissemination of new knowledge and creative activity, and to the development of the next generation of researchers, creative artists, and leaders.** This mission is rigorously supported by providing:

- Internal research and creative activity grants for faculty and librarians.
- Conference travel funding support for faculty and librarians.
- A generous professional development allowance for faculty and librarians.
- Options for regular full and half-year sabbaticals for faculty and librarians.
- Early career release from teaching for one semester.
- Course releases for the express purpose of conducting research.
- Dedicated funding support for fine and performing arts projects.
- Internal research and creativity grants for students.
- Experiential learning and travel funds for students.
- Strategic infrastructure investments through the Canada Foundation for Innovation.
- A vibrant teaching centre connecting research, creative practice, and teaching pedagogy.

### Vision

Mount Allison's long history and tradition of liberal arts and science education support a diversity of research, creative, and professional activities within its faculties. **Creative practice, theoretical and**

**applied research, community-based research, and research relating to arts and culture, public and social policy, social structures, and scientific discovery provide many opportunities for researchers and students to engage in contemporary issues across all disciplines, from both established and innovative approaches to the acquisition and dissemination of knowledge.** As a small undergraduate university Mount Allison offers a special relationship between research and teaching, and a unique context for research and creative activity collaboration and partnerships across disciplines.

Moving forward, Mount Allison envisions that research and creative activity at the university will:

- Engage researchers and students in a variety of scholarly activities producing new knowledge and creative outputs.
- Make a recognized and valued difference in the world around us.
- Raise the external research reputation of the university.
- Increase the profile of our researchers and artists.
- Strengthen existing, and lead to new, collaborations regionally, nationally, and internationally.
- Support efforts to provide international experiences for researchers and students.
- Attract high quality faculty, librarians and students from Canada and around the world.
- Attract increasing amounts of monetary support from granting programs, governments, communities, and foundations for all types of research and creative activities.

## Principles and Values

Principles and values are the foundation for identifying and acting on strategic priorities in pursuit of our research and creative activities vision. These principles and values also provide orientation to the ways in which our researchers pursue their research and creative activities. At Mount Allison, research and creative activities:

- Inform our teaching and pedagogy.

Our classroom experiences are enriched when our researchers bring their research findings and creative outputs into the teaching and learning environment. Students benefit from the latest work of their professors and librarians, and are fueled by their passion and knowledge.

- Provide opportunities for undergraduate students to engage in research and creative processes and outputs.

Researchers engage their students in the pursuit of new knowledge and in the creation of new artistic outputs. They provide training and development opportunities not typically available to undergraduate students at other universities. These opportunities present students with enriched experiences that lay the foundation for graduate school or meaningful work after graduation, and that contribute to the development of the whole person. Furthermore, the opportunities afforded to undergraduate students provide Mount Allison University with a competitive advantage in recruiting the best and brightest students from around the world seeking an enriched undergraduate experience.

- Extend and enhance our external reputation.

The reputation of our research and researchers at Mount Allison is enhanced by each success in funding competitions, by the presentation and publication of findings, by the production of art, music, and drama, and by the development of scientific, community-based, social policy, and public policy solutions to pressing problems. This reputation extends to other aspects of the university and contributes to efforts to recruit new faculty and students.

- Have impact on our society through dissemination to relevant audiences.

Researchers and students present their findings and their art, music, and dramatic productions, to many different audiences. We have impact in communities, in government, in society, and within disciplines. Our research and creative activities generate recognition by external audiences.

- Are supported by university investments that build the capacity of both researchers and students.

The university makes strategic investments of operating funds, research funds, and infrastructure funds to support researchers and students in accomplishing their research and creative activity objectives. Researchers across most disciplines require equipment, software, datasets, information-based resources, and other “tools” (infrastructure) in order to carry out their research and creative activity programs. Ongoing and new investments will be needed to sustain and grow the capacity for quality research and creative activity outputs, to continue to offer a competitive environment for researchers, and to provide meaningful student experiences.

- Maximize the use of resources through collaborative and interdisciplinary approaches.

Owing to its size and undergraduate focus, Mount Allison offers researchers the opportunity to engage in interdisciplinarity or multidisciplinary, and collaboration, both on campus and externally. New insights, perspectives, and knowledge can be gained from collaborative processes. In many cases, research and creative activities have a higher impact when done jointly with others, including with those at Mount Allison and with those at other institutions and in other organizations and communities. The collaborations benefit from interdisciplinary and multidisciplinary perspectives to address complex problems or to present unique, creative interpretations of our society.

## Strategic Objectives and Priorities

Over the next five years, Mount Allison University will implement actions associated with strategic objectives that will improve the capacity for, and move the university closer to achieving its vision for, research and creative activities.

Our strategic plan recognizes that there are many different approaches to research and creative activity. Some researchers work alone; others work in collaborative teams with colleagues on campus and/or at other universities. Some research programs require performance, creation, and laboratory spaces and equipment; others require access to field locations near and far; all require access to information resources. Our strategic plan further recognizes that some of our science-based research programs provide opportunities for integrating graduate students owing to the presence of a science-based master’s degree program, and that researchers in the arts, humanities, social sciences, and in some sciences do not have access to graduate students on campus and some of them choose to engage

graduate students from other institutions<sup>1</sup>. Regardless of the discipline, subject matter, and resource requirements and use, all activities are valued and contribute to our collective knowledge and development.

### **Institutional Environment**

1. **Objective:** Enhance and extend the external perception of Mount Allison University to one that excels in arts, social science, and science research.
  - a. **Action:** We will increase efforts to use both traditional and social media platforms to share stories of research and creative activity opportunities, experiences, outputs, and outcomes.
  - b. **Action:** Create “research and creative activity” links for Prospective Students on the University’s website as a means to support recruitment of new students.
2. **Objective:** Encourage and support, where appropriate, multi-, cross-, and inter-disciplinary collaboration, both on campus and externally.
  - a. **Action:** The Office of Research Services will coordinate and/or implement workshops and development sessions focused on these methodological approaches.
  - b. **Action:** The Office of Research Services will identify and provide access to funds that can be used for networking and collaboration development.
3. **Objective:** Support faculty, librarian, and student efforts to share research results and creative activities with both academic and non-academic audiences.
  - a. **Action:** Libraries and Archives will create repositories that meet national policy standards for open access publishing and for open data.
  - b. **Action:** Libraries and Archives, and the Office of Research Services, will provide ongoing information sessions and support for researchers in complying with open access and open data policy requirements.
  - c. **Action:** Researchers will make use of open access and open data repositories.
  - d. **Action:** Marketing and Communications, with the Office of Research Services, will offer regular training opportunities researchers and students for media engagement, developing relationships with knowledge mobilization intermediaries, social and public policy engagement, and more general knowledge mobilization activities.
  - e. **Action:** Expand the range of social media streams used to promote research and creative activity outcomes of researchers and students.

### **Researcher Capacity**

1. **Objective:** Enhance the unique Mount Allison environment in order to attract and support post-doctoral fellows who have their own funding (tri-agency post-doctoral funding, or equivalent) to come to Mount Allison University.

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<sup>1</sup> The central role of undergraduate students in research and creative activities is articulated in the Principles and Values section, page 2, and most, if not all, researchers at Mount Allison University engage undergraduate students in one way or another in their research and creative activities.

Post-doctoral fellows have the potential to play an important role within research programs headed by our researchers, regardless of the discipline. This is especially the case in the arts, humanities, and social sciences where no graduate programs exist. The opportunity to make a difference in teaching activities and research programs at a small university can be extremely attractive.

- a. **Action:** We will provide a small research stipend and reasonable office space to each post-doctoral fellow who comes to Mount Allison University with his or her own external funding.

2. **Objective:** Create a fund for providing matching funds to researchers who wish to attract and financially support a post-doctoral fellow to work within their research program.

The internal funds may come from existing sources or from new sources of funds through donors. These post-doctoral funds will support research-intensive post-doctoral appointments and will be complementary to the existing McCain post-doctoral fellowships.

- a. **Action:** University Advancement will seek funding for post-doctoral support as part of its list of fundraising priorities.

3. **Objective:** Leverage the Marjorie Young Bell Faculty Fellowship program to provide research and creative activity resources in a strategic manner to position promising early career scholars for success in external funding programs.

This program provides additional support for promising early career researchers to rapidly enhance their productivity, to leverage external funding support, to obtain success in external funding programs, and to lay the foundations for possible nomination for Canada Research Chair or other externally funded chair positions.

- a. The Research and Creative Activities Committee will review the current fellowship to ensure that it meets the strategic objectives of the university, and make recommendations, if necessary, for enhancement.

4. **Objective:** Evaluate the appropriateness of the current tuition and funding model for graduate students to reduce the overall financial burden of faculty members to support graduate students.

Even with the relatively small size of the graduate studies program at our university, graduate students at the master's level play an important role in the success of many research programs. Finding adequate financial support for all potential graduate students who might be admitted to our programs can be challenging.

- a. **Action:** The Graduate Studies Committee will review and act on recommendations from the 2016 external review of the Graduate Studies Program, with a view to finding sustainable and cost-effective solutions for graduate student funding support.

5. **Objective:** Encourage and support faculty and librarians to seek adjunct appointments at other institutions in order to expand their capacity for accessing specialized information and collections, including research resources and supports not available locally, and for expanding the possibilities for supervision and training of students and others at all levels.

6. **Objective:** Build capacity in arts, humanities, and social science areas identified as having research intensity or emphasis by making strategic use of the SSHRC Aid to Small Universities program.

- a. **Action:** The Research and Creative Activities Committee will develop a multi-cycle planning approach to build capacity in identified areas (priority will be given to those

found in the Areas of Research Intensity and Emphasis) on a rotational basis, every three years. Subject to specific proposal development, each application will strive to include resource allocations for faculty projects, student projects, capacity building and training activities, and knowledge mobilization activities.

## Infrastructure and Funding

1. **Objective:** Attract researchers with an interest in innovative and creative approaches to critical inquiry and who value the integration of research and teaching in an undergraduate university setting.
  - a. **Action:** We will evaluate the adequacy of the current funding model for startup funding support. Appropriate stakeholders (including tenure-track faculty members hired since 2010) will be engaged in the evaluation.
  - b. **Action:** We will access NBIF Talent Recruitment funding support for new tenure-track appointments in sciences.
  - c. **Action:** New tenure-track appointees who require equipment and infrastructure will be provided with a reasonable allocation from our CFI John Evans Leaders Fund, and will be expected to utilize a portion of their startup funds, where necessary, to secure the necessary matching funds.
2. **Objective:** Develop a policy (and associated guidelines and processes) to manage, in a strategic manner, the distribution of internal funding support for research equipment, software and infrastructure.
  - a. **Action:** The Research and Creative Activities Committee will develop this policy.
3. **Objective:** Strengthen financial resources to invest in the upgrading of existing research and creative activities infrastructure, and to support the leveraging of financial resources for investments in new infrastructure.
  - a. **Action:** We will make strategic and effective use of the CFI Infrastructure Operating Fund to respond to needs for repairs and upgrades to CFI-funded equipment.
  - b. **Action:** Internal and external sources of financing will be sought for dealing with non-CFI-funded research equipment, software, and infrastructure that may require repairs, upgrades, or replacement.
  - c. **Action:** The Office of Research Services will work with University Advancement to identify external funding sources to support new investments in research equipment, software, and infrastructure.
4. **Objective:** Identify and support a solution that provides enhanced and improved facilities for biology, biochemistry, chemistry, and environmental science research.

It is acknowledged that the Barclay and Flemington buildings are aging and do not provide optimal space for research labs, owing in part to the fact that core internal systems, such as ventilation and electrical, are at maximum capacity, and that some spaces that were never designed for some types of laboratory use or equipment installation are being used with less than maximum efficiency.

  - a. **Action:** Through the Campus Master Plan process, investments in existing buildings that can address the pressing limitations, or a new science building, will be considered.

5. **Objective:** Enhance and strengthen the role of the Libraries and Archives in support of the research mission of the university.

Libraries and Archives is committed to supporting the teaching and research needs of faculty and students. Librarians work to ensure researchers and students have access to the best information resources possible. The Libraries and Archives was not originally intended to serve as a research library; its focus has traditionally been in support of the teaching mission of the university. The increasing emphasis on research, accompanied by the differing information needs of research and teaching and the rising cost of information resources, has highlighted the need for increased support for library and information resources.

- a. **Action:** The Libraries and Archives will undertake a campus-wide consultation to seek input on its roles in support of both the teaching and research and creative activity missions of the university. This consultation will identify existing and potentially new or different support roles, and the required financial and staffing resources to succeed in those roles.
- b. **Action:** The Libraries and Archives will promote its unique, special, and local collections and archival fonds, any of which might be used by researchers and students for new areas of inquiry. It will support the availability of specialized resources such as statistical databases provided through the Data Liberation Initiative.

## The Undergraduate Experience

1. **Objective:** Leverage the Independent Student Research Grant (ISRG) program for recruiting new students to come to Mount Allison University, and ensure the program has adequate financial resources to be sustainable.

The ISRG program provides a unique opportunity for 45-50 students with third year standing to receive their own research grant to pursue their own research or creative activity project. These opportunities are in addition to research opportunities available to students through other means, including, but not limited to, paid research assistantship positions through research grants held by faculty.

- a. **Action:** The Research and Creative Activities Committee will review the number, value, and distribution of awards every three years to ensure that the program continues to provide meaningful experiences for students and their mentors.
  - b. **Action:** The ISRG program will be promoted as part of the opportunities presented to prospective students during recruitment activities and in recruitment information resources.
2. **Objective:** Expand the profile of the Office of Research Services as a source of information and support for students.
    - a. **Action:** We will create “research and creative activity” links for Current Students on the University’s website.
    - b. **Action:** The Office of Research Services will work with the Mount Allison Students’ Union and student societies to develop a plan for building awareness among students about the role of the Office in support of undergraduate research and creative activities.
    - c. **Action:** The Office of Research Services will offer information sessions and workshops aimed at second and third year students on funding support, ethics, responsible conduct of research, grant writing, CV development.

It is recognized that individual strategic objectives and priorities do not necessarily apply to all researchers or to all programs of research or creation; this does not preclude researchers from pursuing their goals or from accessing internal research and creative activity program supports. Acting on these strategic objectives and priorities will lead to the following outcomes:

- Researchers will achieve greater success in advancing their individual and collective research and creative activity programs.
- Researchers will achieve greater success in accessing funding they may seek for their research and creative activity programs.
- New knowledge and creative outputs will have been produced and will have made a difference.
- The external (national and international) research and creative activity reputation of the university and its researchers and artists will be enhanced.
- Research and creative activity infrastructure will be enhanced.
- Students will have meaningful opportunities to discover and learn research and creative activity skills.
- Students will be prepared for future graduate studies and for careers in the private, public, and non-governmental sectors.

## Areas of Research Intensity and Emphasis

Mount Allison University's Areas of Research Intensity and Emphasis reflect thematic areas where we have a critical mass of researchers and impact, or where there are latent and emerging opportunities on which researchers can build. These are also areas where future Canada Research Chair appointments, and future Canada Foundation for Innovation investments, will be made.

Our Areas of Research Intensity and Emphasis are framed by two broad conceptual areas: **quality of life**, and **human endeavour**. Indeed, all of the research and creative activities at Mount Allison University contribute to an improved quality of life on campus and in society, and represent significant contributions to society through various human endeavours.

**Quality of Life** examines how we understand the world around us and identifies the underlying factors that lead to a better quality of life for all. **Human Endeavour** drives culture and humanity forward, pushing the boundaries of scientific exploration and creative pursuits. We seek an understanding of our world and human experience from a variety of approaches, including creative practice and critical analysis, and testing the limits of our current understanding.

The areas of research intensity and emphasis are listed below in alphabetic order.

### Aquatic Sciences

Researchers make use of two key laboratories and several outdoor field sites to explore issues related to habitat change, species health and development, and much more. These critical research programs contribute significantly to our understanding of how changes in our environment have real life impacts on species, livelihoods, and communities.

## **Citizenship, Culture, and Civil Society**

Researchers investigate who we are as citizens, about our place in the world, and the personal, human, economic, political, and structural conditions which shape our interactions with each other. These explorations take place at many different scales – local, regional, national, and international – and in historical and contemporary time periods. Social justice, gender, culture, indigeneity, social inclusion, and political power and resistance are key issues that inform these interactions and explorations.

## **Climate Change**

One area is clustered around phytoplankton research; members from several departments investigate key issues associated with climate change by examining how this key element of the ocean's composition responds to and changes with, changes in our climate. Another area is clustered around coastal changes and resource use and protection, and corresponding community and government policy and program response. Researchers explore the intersection of science and human activity, and develop community and government response options.

## **Creative Practice and Performance**

Our fine arts, drama, and music programs draw exceptionally talented students who are motivated by the creative works of our award winning researchers. The fine arts and drama programs are supported by a new, state-of-the-art teaching and production space within the Purdy Crawford Centre for the Arts. The fine arts program benefits from the presence of the oldest university-based art gallery. The drama program creates high quality productions which challenge society's thinking about economic, social, and environmental issues. Music teaching and production is located in the Marjorie Young Bell Music Conservatory, a music-dedicated space for performance, teaching, and student practice. Our music faculty mount performances in multiple genres, create high-quality audio and video recordings, and contribute to current Canadian musical discourse through many channels.

## **Health and Aging**

Researchers examine how we manage our individual health, how we age and how our systems respond to needs – whether we are talking about our physical health, our mental health and well-being, our individual and collective program supports for an aging population, or end-of-life care issues. Our researchers explore how we are recognizing, accommodating, and integrating those with disabilities – physical, cognitive, and other – as part of a comprehensive and holistic examination of society.

## **Material Science**

As we are challenged to come up with new solutions to our environmental challenges and energy needs, our researchers explore the creation of new materials and processes that can offer necessary and sustainable solutions to these pressing problems. These processes include developing greener routes to more effective anti-bacterial and anti-cancer treatments, developing better materials for devices, and understanding how current materials can interact with different environments (natural and/or biological). Innovation and creativity, and the engagement of talented undergraduate students, are the foundations of the ongoing search for new solutions.

## Scholarship of Teaching and Learning

Researchers across many disciplines link their research and creative activity outcomes with their teaching curricula, providing undergraduate students with unique and grounded learning experiences. Many engage in purposeful and reflective research on their own teaching as a way of improving the student experience and enhancing student learning. As a small institution with a focus on high quality undergraduate experiences, we are poised to be leaders in the field of scholarship of teaching and learning.

## Visual and Material Culture

Our world is full of objects and artifacts of our existence here on earth; our researchers take unique approaches to the telling of relationships between people and what they have created. The story of the making, history, preservation, and interpretation of objects in many different temporal periods and cultural settings is fertile ground for our researchers. The university archives hold a unique collection of materials from across the disciplines and offer many interesting possibilities for in depth research, and the Owens Art Gallery holds a vast collection of visual material that is incorporated into many teaching and research and creative activity programs.

## Strategic Use of Canada Research Chair Allocations

Our Canada Research Chairs allocations are used to build research capacity across the campus. Our nominations for Chairs are designed to build on our Areas of Research Intensity and Emphasis, as outlined in this document, and to foster cross-disciplinary collaborations. We will continue to use a hybrid approach to identifying and nominating Chair appointees:

- Selective internal appointments coupled with new bridging faculty appointments made possible by the liberation of salaries.
- Selective nomination of externally recruited researchers, where opportunities, resources and circumstances permit.

Collegial discussions in association with other university processes will continue to be used to identify the focus / theme (within one of our areas of research intensity and emphasis) of any new nomination, and to determine if such a nomination would involve an internal nomination, an external recruitment and nomination, or a combination of the two. Our processes for new nominations will adhere to university tenure-track hiring practices, which includes efforts to address the issue of gender representation in the Canada Research Chairs program.

As of November 2016, our current Canada Research Chairs are as follows:

- Tier 1, Phytoplankton Ecophysiology (expires April 30 2018)
- Tier 1, Boron Pharmaceutical Chemistry (expires Nov 30 2018)
- Tier 2, Marine Environmental Ecology (expires June 30 2021)
- Tier 2, Intercultural Encounter (nomination October 24 2016)

## **Strategic Use of Canada Foundation for Innovation Allocations**

We will continue to use our Canada Foundation for Innovation funds to primarily support the needs of Canada Research Chair holders and researchers working in tandem with them. We will also provide new tenure-track appointees who require equipment and infrastructure with CFI allocation support. These approaches will permeate benefits across the institution and enhance our research capacity and profile.

## **Plan Approval, Review and Update**

This strategic plan was developed by the Senate's Research and Creative Activities Committee and adopted by Senate on November 15 2016. It is a living document and will be reviewed and updated regularly, at least once every two years, by the Research and Creative Activities Committee.