
Strategic Research Plan

Mount Royal University 2012

...the vision and central themes
for research at Mount Royal



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Overview

Founded in 1910 as Mount Royal College, Mount Royal University has spent a century developing a reputation for teaching excellence. In September 2009 Mount Royal College became Mount Royal University, and in 2010 joined the Association of Universities and Colleges of Canada (AUCC), completing the official part of a transformation that had been going on for more than a decade (and some say a century).

Research activities did not begin in 2009. Many Mount Royal faculty have sustained scholarly records both outside and at the institution, and we had been hiring into research-inclusive roles for several years. However the transformation catalyzed more hiring and made research activity a broadly accepted, though optional, part of faculty roles.

Mount Royal's goal is to be the premier undergraduate university in Canada on important measures related to student success and satisfaction. Research activities will play an important part in achieving this goal. Research generates new knowledge and understanding, impacts people's lives, fosters engagement with our external community, creates exciting new opportunities for student learning and adds to Mount Royal's vision of 'inspiring learning for a world of possibilities.'

Mount Royal is well on the way to developing a vibrant research culture, where high quality research by faculty, staff and students takes place as a matter of course across all departments and academic units. However, research at an undergraduate, teaching-focused university is different in nature from that undertaken at a research-intensive one. The lack of graduate programs provides undergraduates with broader opportunities. Research is often woven more closely with teaching. Topics chosen tend towards meeting practical or community needs in addition to traditional scientific goals, and faculty are more directly involved with their undergraduate students — with more opportunity to engender that 'spark' that launches a new researcher on their way.

The expansion of senior undergraduate courses over the past several years has seen a comparable rise in student research activity. Faculty are exploring

ways of bringing their research into the classroom, of directly involving their students, and of exposing students to publishing, presenting and otherwise disseminating to their peers.

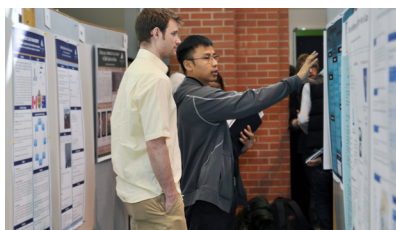
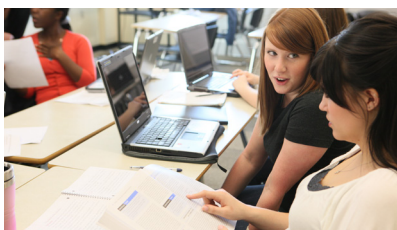
Because the nature of the research at Mount Royal differs from that of a research-intensive university, so too does this strategic planning document. We do not focus on goals of increased funding and research activity unto themselves. External funding is critical and is one measure of success, but we seek funding to support activity that helps achieve our central goals of faculty/student/community engagement and student success. Successful faculty only mean successful students if we maintain that engagement, so the plan maintains a focus on that link.

This document lays out the vision and central themes for research at Mount Royal for the next five years. In particular it outlines what will be the defining priorities of Mount Royal as a research institution and lays out strategies for achieving these goals. Over the next five years MRU will make significant strides towards its aspiration to be one of the leading institutions in Canada in undergraduate research, community-engaged scholarship and the scholarship of teaching and learning (SoTL).



Mount Royal is
well on the way to
developing a vibrant
research culture...





PURPOSE OF THE STRATEGIC RESEARCH PLAN

The Strategic Research Plan has a two-fold purpose. Firstly, the Strategic Research Plan is precisely that — a strategic planning document for our internal use, laying out a vision for the future of research at Mount Royal, our aspirations, and the priority areas for building our activity over the next five years.

Secondly, it provides external audiences, including community partners and government agencies, a window into the institutional priorities driving our research endeavours. Community agencies can examine the plan for alignment with their own goals. Similarly, both provincial and federal agencies use planning documents such as these to assess funding requests — particularly those for new infrastructure — to see how the request matches with the institution's goals.

The plan is not intended to be exclusive, nor to guide the awarding of Internal Research Fund grants, conference travel awards and the like. All areas of faculty scholarly activity are valued equally in our general Internal Research and travel grants, in tenure and promotion, and in other adjudication. The plan is instead a guide to strategic investment in institutional infrastructure, to developing focal areas for new grants, and a framework to help those outside understand our research strengths. It looks to answer the question often posed by the community: "What research do you do at Mount Royal?"

The Strategic Research Plan is a living document. The world of academic research is fluid and constantly moving forward. New opportunities, initiatives or additional areas of research focus may arise. The Strategic Research Plan is intended to be updated and reviewed on a regular basis to closely reflect what is actually taking place at Mount Royal and the real progress made on the ambitious goals and vision it lays out, rather than being a fixed document whose relevance and usefulness diminishes over time.

Beyond simply identifying strategic areas, where appropriate this plan includes strategic activities and suggests measures that will help us map our progress towards those goals.

PROGRESS SINCE THE 2007 ACADEMIC PLAN

The 2007 Academic Plan made a number of recommendations regarding scholarship and research. Significant progress has been made on these recommendations since the adoption of the Academic Plan. Currently (2012):

- » Administrative infrastructure for research is now in place through Research Services. Policies on Intellectual Property, Commercialization, Responsible Conduct of Research, Conflict of Interest in Research, Biosafety and Animal Care are now in place. Mount Royal is eligible to apply to each of the three federal Tri-Agencies (SSHRC, NSERC and CIHR) as a university.
- » A research culture is well on its way to being firmly established at Mount Royal. This process is ongoing and will continue to be addressed by the institution, its faculties and departments. The Teaching, Scholarship and Service (TSS) faculty work plan was successfully put in place in 2008. Currently approximately 67 percent of eligible faculty have opted to be placed on the TSS stream. It is important to note that the two streams have not been created to divide faculty into teachers and researchers: scholarly teaching is recognized and rewarded in both faculty streams. Regular dissemination seminars are taking place across Mount Royal, along with research-focused professional development sessions. Research is being incorporated as an integral component of the new faculty orientation program. Several research networks have been established, including the areas of forensic research, the scholarship of teaching and learning (SoTL) and nonprofit research.



- » Inter- and multi-disciplinary research activities have grown, in part due to the activities of the three institutes and two research centres focusing on interdisciplinary research (Institute for Nonprofit Studies, Integrative Health Institute, Institute for Scholarship of Teaching and Learning, Centre for Child Well-Being and Centre for Criminology and Justice Research).
- » Peer review has been established as the touchstone for the assessment of research and scholarship activities by faculty and Faculty-specific criteria were established and approved in 2011.
- » Faculty research is regularly being taken into the classroom by Mount Royal faculty and undergraduate involvement in research is growing — as demonstrated by the 160 participants in the 2012 inaugural 'Student Research Day' — although it is by no means yet an institutional 'norm.'

This document is organized into themes and areas of strategic focus. Themes are general characteristics that are found in many different areas of inquiry, while the focal areas are groupings of similar research topics.

The key themes of the Strategic Research Plan are

- » **Undergraduate Involvement in Research** The establishment of an undergraduate research culture at Mount Royal and the involvement of students in research activities wherever possible.
- » **Community-Engaged Scholarship** To establish Mount Royal as one of the principal institutions in Canada engaging in mutually beneficial research partnerships with its external community.
- » **The Scholarship of Teaching and Learning (SoTL)** Mount Royal looks to become recognized across Canada and beyond for SoTL in terms of research and dissemination, application of scholarly results to teaching practices and faculty development.
- » **Collaborative Research** To take advantage of Mount Royal's long-standing highly collaborative culture and build new opportunities in and for interdisciplinary research across the University and beyond.

Strategic Themes for the Next Five Years

THEME 1: UNDERGRADUATE INVOLVEMENT IN RESEARCH

Mount Royal University is recognized across Canada as an institution that provides excellence in teaching and learning. By placing undergraduate research as an institutional priority, Mount Royal will be building on its current reputation and expanding the educational opportunities available to our students.

Mount Royal faculty have involved students in their research for some time, although prior to the implementation of four-year baccalaureate degrees the students were rarely able to take the lead. With our first class of fourth-year students in 2009/10, and with most degrees adding their fourth year cohort in 2010/11, the magnitude and depth of student involvement have grown rapidly. Students act as research assistants to faculty — in some cases as co-researchers, they are increasingly involved in research presentations at conferences, five honours programs are now in place, and there are increasing numbers of courses that contain research components or are entirely research-based.

Undergraduate research, in Mount Royal's context, is not solely the traditional 'students assisting faculty' model. Instead, students are encouraged to develop research skills through practice, and to put those skills into use in capstone experiences such as honours theses, presentations and Directed Studies. The expansion and further embedding of undergraduate research in the curriculum is an excellent fit with Mount Royal's ethos and mission, and will further our aim of becoming Canada's premier undergraduate university.

By 2017 there will be a firmly established culture of undergraduate research and opportunities for the majority of MRU undergraduate students to be involved in research activities, either course-based, through independent study or acting as research assistants for faculty members. These are, however, just opportunities. Students and faculty will always have a choice.

A number of things are necessary for Mount Royal to achieve its aim and further undergraduate research. First, opportunities for students to be engaged in research activities must continue to grow, both working on faculty-led projects or through research-based courses embedded in the curriculum. Undergraduate research will grow as a matter of course with the further development of fourth-year courses within Mount Royal's own degree programs and the expansion of honours degrees. In addition, a number of initiatives will be undertaken over the next two to three years to raise the profile of undergraduate research with faculty and students and to extend the opportunities available for all students who wish to become involved. These will include faculty workshops, faculty and student champions, further development of research-based courses (including exploring interdisciplinary research courses) and increased support for research assistant opportunities across the institution.

Secondly, opportunities will be offered for students to showcase their research work. Several Faculties already hold successful annual student poster sessions. These will be encouraged across the University and will feed into the annual Mount Royal Undergraduate Research Day and an online MRU undergraduate research journal.

The above initiatives will require administrative and organizational support, which will be provided by the establishment of an Undergraduate Research Coordinator/Officer. However, given the current budgetary climate this is unlikely to take place for several years. Until the establishment of an Undergraduate Research Coordinator, the role will be undertaken by Research Services. Funding for undergraduate researchers will be established through studentships and a student research travel fund and, by 2017, MRU will be seeing regular success in federal and provincial undergraduate studentships (for example NSERC, CIHR, Alberta Innovates).

Our goal is to enable any Mount Royal degree or diploma student to have the opportunity to engage in research activities during their time at MRU.

Goals

- » Increased opportunities for undergraduate involvement in research, leading to opportunities for the majority of students.
- » Increased opportunities for and success with paid or unpaid student assistantships.
- » Increased opportunities for student research dissemination.

Strategies

- » Build participation and outreach from Student Research Day.
- » Develop a student research fund, endowed student research awards, internships, etc. through increased Foundation participation.
- » Develop a student research travel fund.
- » Hire an Undergraduate Research Coordinator.
- » Build honours program participation where possible, developing new programs where appropriate and further develop Directed Studies and other course-based research venues.
- » Increase the visibility of student work and highlight student activities through all communication media, particularly the MRU web site.
- » Lobby for broader opportunities with provincial research funding traditionally focused solely on the long-standing universities.

Measures

- » **Internal:** Number of courses including research methods, number of student hours devoted to independent or faculty-led research, number of papers published with student authorship, number of conference presentations by students, research funding flowing to students.
- » **External:** Student success at graduate school applications, PGS scholarship success, qualitative feedback from employers.

THEME 2: COMMUNITY-ENGAGED SCHOLARSHIP

Being community responsive is an important part of Mount Royal's ethos. Community-engaged scholarship (CES) will create even closer engagement between Mount Royal and our external community — be it in Calgary, Alberta, Canada or worldwide. Over the next five years Mount Royal will seek to actively build on the current research partnerships many faculty and students have with community organizations in government, the nonprofit sector and business to become a leader in the region, and in the long run in Canada, in community-engaged scholarship.

Community-engaged scholarship is scholarship that involves and benefits the community while simultaneously advancing faculty and/or student research goals. A key part of community-engaged scholarship is to build a mutually beneficial relationship between faculty, students and the community. For faculty and students, the relationship will forward their programs of research, but for this part of Mount Royal's research vision to be truly realized, our community partners also have to see a benefit to engaging with MRU researchers.

Mount Royal has a strong track record in community-engaged scholarship to build on, with much of the infrastructure already in place to make this one of the defining aspects of research at Mount Royal. Many of Mount Royal's programs have actively involved advisory committees, whose members often come from the external community. A number of programs have internships, Directed Field Studies, cooperative options, or other types of work experience as course requirements or components. Several of the existing institutes and centres have expertise and strong reputations in community-engaged research. Mount Royal students are regularly involved in working with community partners as part of their undergraduate research activities. These all position MRU to become a national leader in community-engaged scholarship.

Community engagement also includes engagement with professional communities. Professional practice-based research is a well-established part the MRU ethos, beginning long before university status was achieved. Nursing, in particular, focuses heavily on evidence-based research into improving their professional practice. Teaching and learning is another key area for this type of research, and is discussed in greater detail in the following section.



Mount Royal will be building
on its current reputation...

Over the next three years, several initiatives will take place at Mount Royal to widen community-engaged scholarship. Growing and facilitating partnerships between the community and Mount Royal researchers will be an important focus of these initiatives. Our current community links will be utilized to bring together researchers and external organizations. Annual/semi-annual events bringing together Mount Royal and our external community aimed at developing new research partnerships and celebrating existing partnerships will be piloted starting in 2013. These events will provide a forum for faculty and community organizations to network and talk to potential partners for projects, as well as showcasing the community-engaged scholarship already taking place at Mount Royal.

The principle barrier to community-engaged scholarship is the non-traditional nature of its dissemination methods. 'Community building,' plans, reports and business development are difficult to capture in traditional journal and conference presentation-oriented faculty evaluation. To effectively implement CES, Mount Royal will need to go beyond simply including CES in its tenure and promotion criteria; it will need to help faculty properly plan projects and project evaluation so that newer, non-traditional types of evidence are gathered (such as measureable community impact). Further, MRU will need to support and celebrate efforts in this area.

While Mount Royal is looking to build research partnerships across the community in its widest sense, there will initially be two areas of focus: Calgary and rural areas of southern Alberta. Calgary is a natural choice, not just as Mount Royal's local community, but also as it offers a full range of potential community partners, from nonprofit organizations to government to the private sector. Rural southern Alberta offers new opportunities for faculty and students to engage with partners from a range of sectors and sizes and is also an important part of our local community. Both Calgary and rural southern Alberta are a good fit with Mount Royal's identified areas of research focus and offer an opportunity for Mount Royal researchers to engage in research that benefits themselves, the institution and our wider community.

Goals

- » To become a leader in Community-Engaged Scholarship, meaning we are known for specific activities, and looked to for leadership in this area.
- » To value and support research that mobilizes knowledge for the benefit of society.

- » To develop regional partnerships by, for example, providing leadership for other post-secondary institutions in recognizing CES in tenure and promotion.

Strategies

- » Capitalize on current community links through advisory committees and the like by promoting current activity and outlining faculty interests.
- » Develop events to connect other community groups with faculty.
- » Help faculty to develop portfolios of activity to effectively highlight and measure CES as they seek tenure and promotion.

Measures

Research and adopt or develop measures of a research project's community impact and community involvement that are consistent with peer review requirements such as economic impacts, improved environment, economic and social empowerment, quality of life indicators, etc.

THEME 3: THE SCHOLARSHIP OF TEACHING AND LEARNING (SOTL)

Mount Royal's 100 year commitment to teaching excellence, the type of faculty we recruit, and the established environment of regular reflection and professional development create a natural fit with an emerging area of scholarship: The scholarship of teaching and learning (SoTL).

MRU faculty have a long history of scholarly teaching — involving reflection, classroom assessment, trying new techniques, and applying the teaching and learning literature in their discipline. SoTL is a natural outgrowth, defined generally as the systematic study of student learning and the teaching that leads to learning improvement, including the public sharing of results from that work. Because of disciplinary differences in epistemology, the term 'study' is defined quite broadly.¹

SoTL is an area that has been identified as an institutional research priority for many years. It draws on Mount Royal's strong commitment to student learning and to ensuring that our students have the highest quality learning experience possible during their time at Mount Royal. In 2008, Mount Royal established

¹ Kathleen McKinney, Illinois State University.



Canada's first Faculty of Teaching and Learning, and in the same year launched the SoTL Institute.

The Institute has established a training program for faculty (the Nexen Scholars Program), a program for departmental collaboration (Engaging Departments Initiative), and created several international conferences and other venues for the dissemination of scholarly work in support of student learning. The Institute maintains a focus on study of student learning rather than teaching, on faculty studying their own students, and on rigorous, peer-reviewed and broadly disseminated research outcomes.

As noted above, the nature of SoTL and of educational research in general research is conducive to discipline-specific clusters of activity. For example, the Centre for Nursing Education, Scholarship, and Teaching in the Faculty of Health and Community Studies represents a model of discipline-specific educational inquiry. MRU will continue to support and encourage growth of such teams of researchers as they make new inroads within and between disciplines, and will continue to focus on supporting the flagship Institute.

Goals

- » To foster and support collaborative and collective inquiry into student learning.
- » To establish and facilitate networks of SoTL researchers and enhance collaborative practice across the institution, the country and beyond.
- » To expand awareness within the academy of evidence-based pedagogical practices.
- » To become a national leader in SoTL research.

Strategies

- » Build the roster of activities — conferences, events and speakers — and to expand their reach internationally.
- » Continue to develop faculty skills and abilities to conduct rigorous, replicable SoTL scholarship.

- » To broadly communicate SoTL opportunities and research results throughout MRU and beyond

- » To seek funding for SoTL initiatives and programming at MRU.

Measures

- » Number of projects, publications, presentation and citations related to SoTL.
- » SoTL events hosted and supported by MRU
- » Awareness of SoTL research results and degree of implementation in teaching practice.

THEME 4: COLLABORATIVE RESEARCH

In 1964, Marshall McLuhan noted the shift from single discipline perspectives to a greater awareness of the whole, attributing this to a shift from mechanization (linear) to the simultaneity of the electric era. This broadening of perspectives may be manifest in several ways: addressing topics that lie 'between' disciplines (subjects no single discipline is able or willing to face), bringing approaches from several disciplinary perspectives to bear on an issue, or bringing complementary skills together to better address a problem within a specific discipline. Mount Royal's history as a teaching college and traditions of collegiality make us an ideal venue for collaborative research in all these ways.

Collaboration has many benefits: it ensures a more effective use of each individual's talents, it helps transfer knowledge and skills across disciplines, it stimulates creativity, it provides intellectual companionship, and it extends a researcher's networks and opportunities for dissemination.²

² Loan-Clark, J., & Preston, D. (2002). Tensions and benefits in collaborative research involving a university and another organization. *Studies in Higher Education* 27(2), 169-185.

Mount Royal's history as a teaching college
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Collaborative research projects arise as faculty interact within and across disciplines and as they explore new areas. The institution's roles are to create the circumstances that allow faculty to interact across disciplines, to highlight highly collaborative research as a valid, even sought-after component of proposed projects, and then to get out of the way and let researchers explore the new areas this opens up. Mount Royal will, over the coming five years, work to generate interaction between faculty in different disciplines through events such as cross-disciplinary colloquia and research 'mixers.' We will highlight interdisciplinary criteria in internal grants and awards (though avoid making them mandatory) and will focus on collaborative projects, partnerships and topics as we work to fund and expand our Institutes and Centres.

Collaboration also takes place between researchers at different institutions. Such strategic partnerships may facilitate access to research infrastructure at a partnering institution, and may also facilitate important mentorship opportunities for MRU faculty who are continuing to develop plans for their research. Collaboration on major research grant applications is a critical avenue to accessing types of funds rarely awarded to smaller or emerging institutions, or to less experienced faculty.

Goals

- » Increase the ability of faculty to engage in collaborative research activities and projects.
- » Increase the number of collaborative projects and their promotion/dissemination.
- » Support and help develop new strategic partnerships with other institutions in support of faculty collaboration.

Strategies

- » Further develop cross-disciplinary faculty 'mixer' events and, where possible, promote inter-institutional collaboration.
- » Ensure that faculty are able to effectively showcase cross-disciplinary activity in tenure and promotion.
- » Promote collaborative research activities.

Measures

- » Number of projects with multiple disciplines represented or in interdisciplinary areas.
- » Success with external agency funding in interdisciplinary areas or in grants requiring substantial collaboration (such as SSHRC MCRI).

Areas of Strategic Focus

In 2005 the Report of the Task Force on Research laid out five areas of research focus for Mount Royal. These areas were purposefully very broad categories. The Task Force concluded that it was important that these categories evolve as research and scholarship became established at Mount Royal. Part of the purpose of the Strategic Research Plan is to mark this evolution and update the broad areas of focus outlined by the Task Force on Research.³

This section represents a short list of specific high points in research activity or planned research activity at the institution. This list does not, and could not hope to, capture the breadth of activity at a comprehensive institution such as MRU. It is also a snapshot in time. New hires, new interests and new funding opportunities can generate new activity in previously unrepresented areas. One big grant can launch a program of activity that quickly eclipses others.

As with the themes listed above, Areas of Strategic Focus do not detract from an individual faculty member's right to choose their own area of interest, nor will they drive funding decisions for the Internal Grants or Travel Funds. They will, however, be used as priority criteria when requesting infrastructure from the federal or provincial government, when seeking funding from the private sector through the Foundation or other means, and when allocating any additional internal grant funding.

Five general research areas of focus have been identified. Within these general areas, more specific areas of focus have been or will be developed. It is expected that the five general areas will remain throughout the period of this document, however the examples of current activity identified are likely to change, evolve and develop during the next five years. Examples used herein are just that, and are not intended to capture the entire range of activity in the area of focus.

The five general areas of research focus are:

- » Community Sustainability
- » Personal and Social Health
- » Entrepreneurial Innovation and Economic Competitiveness
- » Innovation in Science and Technology
- » Interpreting Society: Past, Present and Future

Community Sustainability

Community Sustainability encompasses work that assists the development and expansion of programs and services that continually respond to community issues. At MRU, this area of focus encompasses work on the development and implementation of policy, the nonprofit sector, criminology and forensics, rural economic sustainability, business and society, parks, and numerous other applications that, as a whole, support the theme of community-engaged scholarship.

One area of particular success is nonprofit research, led by the Institute for Nonprofit Studies. Over the past five years it has established a national reputation as the leading centre for research in this field, and researchers associated with the Institute continue to expand their activities. It provides exemplary research experiences for students, hosts colloquia, supports publication of numerous papers and reports, and in these and other ways enriches the MRU research culture. The Institute is seeking to expand its endowment to further development over the next five years.

A second growing area with a community focus is criminology and forensics. The Centre for Forensic Studies and the Centre for Criminology and Justice Studies draw on faculty from many disciplines with projects that impact how we prevent, enumerate and penalize crime. MRU's Capital Campaign is also seeking endowments in these areas, and we hope to have a functioning institute within the next five years.

Other related research themes include those related to understanding the interface of business and society. Through the Institute for Non-profit Studies and the Institute for Innovation and Entrepreneurship, research in social innovation, corporate social responsibility, ethical business practices and environmental management

³ The five broad areas of focus outlined by the Task Force on Research were: 1. Teaching and Learning; 2. Health, Life, Environmental and Social Sciences; 3. Public Affairs and Management; 4. Artistic Activities Related to Communities and Culture; and 5. Science and Technology.

are examples of research initiatives aimed at fostering positive corporate citizenship and the generation of social value through private enterprises. Current research partnerships with rural Alberta communities illustrate initiatives in this area.

Examples of other partnerships created by research in community sustainability include Alberta Justice, Alberta Tourism, Parks and Recreation, the Calgary Police Service, the RCMP and a number of nonprofit organizations across Alberta.

Research into sustainability, in an environmental context, is also relevant to the fourth theme below: Innovation in Science and Technology.

Personal and Social Health

Other researchers at MRU focus on issues more significant to the individual, such as health, child well-being and the prevention of violence. Due to this personal focus, research results are often targeted at influencing policy and changing society in addition to the traditional academic venues.

Existing research units such as the Integrative Health Institute and the Centre for Child Well-Being attract both MRU faculty and external scholars to projects with significant, practical benefits. For example, a study demonstrating low levels of child activity in pre-schools has resulted in changes to the way Calgary pre-schools operate. The Centre for Child Well-Being has recently opened an observation lab that allows researchers and students to study and observe children 'in-situ' at play. Within the next five years we seek to have both research units sufficiently funded to expand their research and take full advantage of the new facilities.

MRU's large Nursing program and large contingent of active Nursing scholars have resulted in numerous hands-on research projects that provide direct benefit in clinical settings. While medical schools focus on drug and other clinical trials, at MRU the tendency is for a research focus on preventative activities, including exercise science, studies of obesity prevention and provision of care, as well as on care later in life. We are partnered with local daycares, school boards and local nursing homes, and have close relationships with Alberta Health Services.

Entrepreneurial Innovation and Economic Competitiveness

Innovation and increased economic competitiveness are important factors in both the Albertan and Canadian economy. Mount Royal is looking to continue to develop its expertise in innovation, creativity and management research, particularly in research looking at best

practices in entrepreneurship, creativity and innovation, and their link to value generation. Among other initiatives in this front, we recently established an endowed Institute for Innovation and Entrepreneurship, which will work to develop research relationships with businesses, particularly in the identification and commercialization of new venture opportunities — be it within the context of new businesses or the commercialization of new technologies in established organizations.

Through engagement with the industry and embracing undergraduate student involvement, research projects on economic competitiveness allow participating students to develop strong analytical skills — to "think outside the box" — and generate, alongside faculty, information of considerable value to industry.

Innovation in Science and Technology

Mount Royal's Science and Technology faculty have research interests that span the full array of STEM⁴ disciplines. Most of this 'bench' science requires both dedicated space and equipment to conduct research. With a new (2010) Knowledge Infrastructure (federal and matching provincial) funded expansion of teaching labs, faculty now have some access to space — if not the full array of required equipment — to undertake work across this broad theme. Areas of particular concentration include a budding Institute for Sustainability and the Environment, with secured funding for the next five years. Our goals are that, by the end of this period, this Institute will have a permanent staff and an assortment of funded projects. Other areas of developing research strength include Biology, Psychology and Earth Sciences.

Generally, infrastructure is the most critical need of Science and Technology faculty. The next five years will see considerable effort by the institution to find funding for both equipment and the expansion of labs. Planning for dedicated research facilities to house both Science and Technology and Health researchers as they expand over the next decade and beyond will be completed within five years.

Interpreting Society: Past, Present and Future

One of the largest, though most diverse areas of enquiry encompasses the Humanities and Social Science disciplines housed in the Faculty of Arts and the Faculty of Communication Studies. Disciplines in Arts, which include Sociology, Psychology, Anthropology, History, English and Policy Studies, analyze and interpret society. Society, and particularly community life, is a recurring theme in the majority of MRU research projects,

⁴ Science, Technology, Engineering and Mathematics

whatever the home Faculty. Whether studying camel caravan routes in Saudi Arabia, ancient relics in Jordan, the impacts of genocide, the Sikh community in Canada, first and second language acquisition, or the sociology of medicine, MRU researchers who interpret society have some of the highest levels of student engagement at the institution.

Similarly, new communication technologies make possible new ways of fostering, governing, controlling and reflecting communities in Canada and in other countries, offering rich possibilities for research, including research with community partners. Trends in population demographics pose new possibilities and new challenges in social life at home and abroad, frequently leading to debates and conflicts that could be much enhanced in quality and usefulness by research and suggesting possibilities for re-thinking the interpretation of present and future Canadian and other societies. Globalization puts a premium on Canadians' understanding of other societies — understanding that can be significantly enriched by research into the impacts of global trends at home and abroad.

This focus area involves all four of the research themes identified earlier, as well as more traditional academic research. The level of faculty involvement and growing student involvement indicate that this area of research will continue to grow and flourish at Mount Royal over the next five years.

DEVELOPING THE AREAS OF STRATEGIC FOCUS

Goals

- » To further develop each of the Areas of Strategic Focus in terms of faculty involvement, grant, contract and endowed funding.
- » To increase, where appropriate, activities that generate new knowledge in the four themes noted earlier in each of these topic areas.
- » To do the above without prejudicing other areas of faculty inquiry.

Strategies

- » Focus on building endowments for existing and proposed Institutes and Research Centres through increased awareness in the Foundation and through other targeted external funding requests.

- » Develop and support collaborative arrangements with other institutions, both those in similar circumstances and research-intensive universities. This will be accomplished through support for individual faculty collaboration (for e.g., grant support for collaborative travel) as well as building connections between institutions themselves (for example, joint investments in animal care facilities).
- » Narrow the focus areas for labs requiring significant investments in infrastructure and develop specific plans for long-term investments, construction and hiring.
- » Broaden the scope of internal awards so that a greater array of needs are met. For example, the current process does not fit studies longer than two years requiring committed funding.
- » As soon as economically feasible, commit to a specific minimum ratio of internal funding to TSS faculty levels.
- » Develop methods of reducing the overall workload of newly hired TSS faculty so that they may maintain their minimum assigned level of scholarship activity at this critical juncture. New faculty are typically overwhelmed with teaching and service responsibilities as they develop new courses and learn to prioritize service. Methods of decreasing these loads to allow time for scholarship are clearly necessary to keep new faculty 'in the game' and help with retention.

Measures

- » Enumerated faculty activity in targeted areas as measured by reported publications, grants and other institutionally accepted methods of itemizing scholarship.
- » Grant funding transfers between institutions, travel to conduct research, number of joint publications with external partners, numbers of multi-institutional contracts and grants (both proposed and awarded).

...it is important that these categories evolve...

Infrastructure

The goals and strategies in this plan cannot be achieved or implemented without growth and development of related infrastructure. In this context, the term includes:

- » Physical/digital components, such as labs, equipment, software and the related indirect costs;
- » Skills components, such as grant-writing ability, undergraduate supervision, data analysis, and advanced research skills; and
- » Support components, such as those needed to build the skills, staff to implement new programs of undergraduate research, CES, and other targeted growth areas.

Physical

Generally, physical infrastructure for research is by far the largest deficit area, though not evenly distributed between disciplines. An institutional commitment to dedicated research space for a strategic number of researchers is required to meet goals of both faculty and student engagement. Mount Royal will, over the next year, develop a detailed, institution-wide research infrastructure plan to address existing shortfalls as well as growth envisioned within this Strategic Plan, the Academic Plan, and the Campus Master Plan. We will also make this our next funding priority once the Library and Learning Centre funding is secured.

In addition to the lab and other research space required for faculty programs of research, specific elements of this plan that require an infrastructure commitment include:

- » Dedicated space for student researchers and research assistants placed as a priority during space allocation/reallocation;
- » Space set aside for Institutes that receive long-term external funding, and for associated Research Chairs;
- » Wherever possible, an increase in lab courses and related lab support to provide the experiential learning environment necessary to develop research skills in applicable disciplines;

Skills

Although faculty primarily help develop skills in others through teaching and mentoring of students, another important part of the research infrastructure is supporting their own skill development. Researchers need support similar to that offered for teaching by our Academic Development Centre. For example, increased faculty skill at grant writing will, in the long run, create less dependence on internal funding for research and infrastructure development. Development of faculty research skills will help generate higher quality research and dissemination, and will increase the number of individuals involved. Skills-related infrastructure needs include:

- » Careful study of undergraduate student mentoring responsibilities and how they may be appropriately integrated into the reward structure. Faculty need to feel that supervision and mentoring is a valued activity, but without prejudicing disciplines that cannot substantially involve students in research.
- » A significant increase in skills upgrades (research-focused PD) for faculty to, for example, maintain currency in statistical software, move into cross-disciplinary areas, or adopt new tools and techniques;
- » A dedicated pool of funds for contract-based grants facilitation, leading to part- or full-time positions where cost-effective.
- » Resources to meet our federal obligations for Human Ethics and Responsible Conduct of Research Training, as outlined in the RCR Framework for the Tri-Agencies.

Support

A significant program of undergraduate research and a growth in community engagement will both require coordination commitments. While these may be spread between Faculties, a true institutional commitment will require dedicated staff. At the same time, the discrepancy between MRU faculty roles and those at research-intensive universities will always work against the success of individual faculty at federal and provincial funding programs. All else being equal, our faculty have



less time and student resources (i.e., full-time graduate students) to commit to projects. This discrepancy requires a steady base of competitive internal research support funding to allow our researchers to meet their goals and commitments and to ramp-up and prepare for the competitive external funding environment.

Programs envisioned in this plan will require:

- » A dedicated Undergraduate Research Coordinator to develop and implement a broad array of support and communications programs;
- » Support for faculty-community facilitation: match-making between community needs and faculty skills. Faculty who are acculturated to traditional research methods will need training and support. Ideally this would be integrated into the Academic Development Centre;
- » An increase in internal grant funding to allow
 - a) pilot project development to enhance faculty ability to shift to external funding, b) support for a majority of those whose research programs fall below the threshold required for external support, but within their scholarship obligations (for e.g., via competitive grants with a success rate in the range of 60-70%), c) support for dissemination through conference travel and specifically for open-access publications; and

- » Dedicated funding for undergraduate researchers linked with faculty activity or close faculty mentoring, including project support and conference presentation expenses.

The infrastructure described above, as well as other physical elements soon to be detailed in a physical infrastructure plan, are critical to the development of MRU's goals, the development of our research culture and the recruitment and retention of the best faculty.

The goals and strategies in this plan cannot be achieved or implemented without growth and development of related infrastructure

Summary

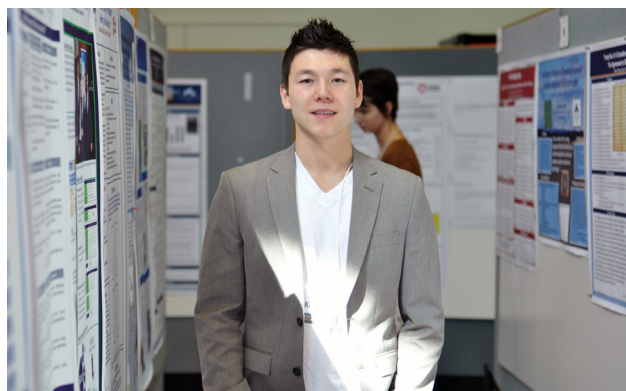
Though 100 years old, Mount Royal is now one of the newest undergraduate research institutions in the country. We took the time and effort to make a reasoned, orderly transition from a teaching college to a teaching and research-focused university, with the emphasis still on the teaching. We are not, and have no intent of becoming, a research-intensive university. Faculty are attracted to Mount Royal because they see a reflection of their own values: a focus on students, on their community and on making a difference. The research currently underway at Mount Royal clearly supports those values, and this plan is not intended to change this model. Rather, its primary goal is to enhance it.

This new decade has witnessed an end to the large capital projects and significant annual increases to federal and provincial research funding programs that characterized the last. However, those programs, for the most part, targeted big-science and big-pharma projects. MRU's intention is to avoid flavour-of-the-month funding and concentrate on what we do well and on what we value: our students and our community.

As an institution we will work over the next five years on developing measures that can better assess the benefits and outcomes of student research involvement, community-engaged scholarship, the scholarship of teaching and learning, and the other less traditional forms of scholarship. Only with a clearly defined set of measures can we properly benchmark and chart our progress towards these goals. Additionally, faculty working in non-traditional research areas will need measures and other indicators of success to assist in tenure and promotion, such as impact on a community partner, or enumerating undergraduate conference presentations. Once developed and tested, these measures will also simplify the measuring of our progress towards the overall institutional goal: to be the best undergraduate university in Canada in important measures related to student success and satisfaction.

Mount Royal University is clearly on a path to define, for the entire Canadian post-secondary sector, the place between 'college' and 'research-intensive university'. We can draw upon the strengths of colleges — small class sizes, engaged faculty and institutional efficiency — as well the strengths of the research university — cutting-edge faculty involvement, discovery-based research on-site and a culture of enquiry — and avoid many of the pitfalls of each. We have the opportunity to create a unique environment — student-responsive, community-engaged and scholarly-active. What we study is important, but even more critical is the research culture we are building. Our efforts over the next five years will set the stage for the next 100 years of Mount Royal's history.





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