Introduction to Principal's Priority Projects in Research:



Moving Support Closer to Research

McGill Seed Fund

Support for Innovation and Entrepreneurship

Proposed Timelines and Deliverables

Dr. Rosie Goldstein Vice-Principal (Research and International Relations) Science Faculty Council March 17, 2015

Introduction

On March 28, 2014, Prof. Suzanne Fortier, Principal and Vice-Chancellor, outlined her strategic vision for McGill during a University-wide address. In this high-profile speech, Prof. Fortier identified student life and learning, research, and community engagement as the areas where McGill will pursue transformative projects in the coming years. These initiatives have become known around the University as the "Principal's Priorities."

Research and International Relations (RIR) is leading the research component, called "Unleashing McGill's Full Research Potential," and co-leading with University Advancement and Communications and External Relations several components under the umbrella of "Enhancing our Community Partnerships."

As the RIR-led Principal's Priorities will be a suite of projects to be developed and launched over the next several years, this document focuses on three initiatives that are underway and are making substantial progress during Fiscal Year 2014-15: 1) Moving support closer to the research; 2) the McGill Seed Fund; and 3) Support for innovation and entrepreneurship.

Project #1: "Moving support closer to research"

The project "Moving support closer to research" will ensure that McGill researchers are supported by an environment that enables and facilitates their research achievements by putting administrative support closer to where research happens, which is now widely accepted as a best practice in the field of research administration. Key elements being implemented in FY2014-15 include: the realignment of the Office of Sponsored Research into discipline-specific teams, the introduction of Senior Advisors in the Strategic Initiatives unit, as well as the redeployment of Commercialization Officers into the Faculties and the creation of the Office of Innovation and Partnerships.

Rationale

Today's research landscape is becoming increasingly global, interdisciplinary, focused on excellence, and rooted in collaboration with partners of all types, including industry, non-profit, government, and other universities. Developing a research enterprise that excels in this environment requires a flexible, comprehensive approach to research administration – one that is coordinated centrally while being focused on local needs. By moving many areas of support for researchers closer to where they conduct their research – whether it is in the Faculties, the research institutes of affiliated hospitals, or in the larger community – Research and International Relations will ensure McGill researchers are made aware of and have easy access to the full range of funding opportunities available to them and their teams, from partnership grants and large-scale networks to incubators and licensing. Most importantly, this project will ultimately provide McGill researchers with support better tailored to their needs and the requirements of their specific discipline. The long-term goal of these structural changes will be to foster a world-class university environment, which regularly produces impactful research that addresses the most pressing cultural, scientific, and economic questions of our time.

Mandate/Goals

- Follow national and international best practices, both in terms of research administration and talent management.
- Provide seamless, pre- to post-award support for researchers.
- Ensure the highest possible quality of data and reporting as related to research administration and funding outcomes.
- Improve to a state-of-the-art level of front-line service for researchers.
- Identify and nurture strong research potential of individuals and groups of researchers earlier.
- Clarify, streamline, and optimize support for innovation generated at McGill, including the McGill University Business Engagement Centre (MUBEC), the Quartier de l'Innovation, the Invention Development and Entrepreneurship Assistance (IDEA) unit, and the Office of Sponsored Research (OSR).

Project #2: McGill Seed Fund

In order to fill an important gap in the pathway that breakthrough research takes from "bench to society," McGill must offer concrete support for novel ideas, bold new approaches, "radical innovation," high-risk research, and creative scholarship. The McGill Seed Fund will provide resources for early-stage team research projects that have high potential for attracting external funding. This initiative builds on a two-year pilot project launched in 2012. The goal is now to expand the mandate of this program with renewed resources.

Rationale

Universities are grounded in a long history of reflection and inquiry in all aspects of art, science, and the humanities. Wherever research may ultimately lead, all advancements begin with ideas. We strongly believe that universities must continue to be spaces where leading minds are free to pursue both curiosity-driven and solution-based research to address government, industry, and other imperatives. The McGill Seed Fund will offer unique opportunities for researchers to undertake projects in an early stage that might be deemed too risky for regular funding agencies to pursue. Through this fund, all kinds of questions – fundamental and applied – will be explored, which might lead to new innovations, sometimes in the most unexpected and exciting ways.

Mandate/Goal

As a world-class, research-intensive university, McGill is committed to fostering ideas, innovation, sustainability, collaboration, partnership, and social engagement. For these commitments to be fully realized, we need tangible research support and a climate that nurtures and facilitates research excellence, with the explicit objective to increase investment in new and breakthrough ideas to position McGill researchers at the forefront of new knowledge.

The McGill Seed Fund will support early-stage *research* projects, rather than following the traditional definition of "innovation" that many people associate with the later-stage development of projects that have potential for commercialization. To do so, RIR is drawing on our experiences with a two-year pilot project, completed in 2012, to implement a long-term internal program framework to support early-stage, high-risk projects with the potential to win external funding after their seed phase. Specifically, RIR is working with Planning and Intuitional Analysis to identify which seeded projects went on to apply and receive grants, following the pilot project. We expect to have preliminary data in late 2014 or early 2015.

The level of funding for the McGill Seed Fund 2.0 is anticipated to be in the range of \$15,000 to \$20,000 per project during the program's first year. Based on the strong response from the research community during in the pilot phase, we would like to ultimately fund approximately 40 projects per year, which will require a total envelope of \$600,000 to \$800,000 per year at full strength.

Specific Actions and Milestones for Projects #1 and #2

Item	Expected Date of Completion
 Repurpose two existing positions within the Strategic Initiatives unit to focus support on large-scale grants. 	September 2014
 Finalize reorganization of the Office of Sponsored Research (OSR) Grants and Agreements unit into discipline-specific teams. 	October 2014
Launch the Invention Development and Entrepreneurship Assistance (IDEA) unit.	November 2014
 Launch University-wide consultation for possible Canada First Research Excellence Fund (CFREF) projects. 	December 2014
 Complete impact assessment of the 2012 seed funding pilot program. 	January 2015
 Redeploy IDEA Commercialization Officers into Faculties and affiliated hospitals to provide more front-line support for researchers. Identify success stories, strengths, and weaknesses in the 2012 seed funding pilot project. 	February 2015
 Complete development of toolkits and processes for applying to major grants programs like NCE, Genome Canada, and CFI. 	March 2015
 Announce partnership with the Centre d'entreprises et d'innovation de Montréal (CEIM) to develop and implement a platform to strengthen industrial collaborations and the creation of spin-off companies. 	May-August 2015

Project #3: Support for Innovation and Entrepreneurship

At McGill, we view innovation as the idea of putting new ideas, technologies, and inventions that arise at the University to work in the broader community. This encompasses not only technological innovation, but also social innovation and other efforts that can have a positive impact in society.

RIR is leading an effort to bring together and align the comprehensive "constellation" of support, opportunities, and resources available to the McGill community to help stimulate entrepreneurial behaviour and innovative activity at all levels. These include:

- Coaching We are working closely with University Advancement to develop a platform allowing qualified alumni to act as mentors and coaches to students, researchers, and faculty who are interested in getting advice on taking their new invention, idea for a social venture, or business idea to the next stage.
- Quartier de l'Innovation (QI) The QI is acting as a bridge for connecting project teams with
 facilities and resources in the Montreal innovation ecosystem, including the recent agreement
 with the CEIM, an incubator with a great track record located in the QI offering facilities for startups and consulting services around operational, market validation, and business development
 considerations.
- Experiential learning We are working to broaden the opportunities for innovation experiences in the community for McGill students, through the Quartier de l'Innovation which already has the Social Economy Impact Initiative Internships up and running through SMEs, industry, and NGOs.
- Guide We are developing a guide for faculty inventors to help navigate the technology transfer process, including dealing with Intellectual Property.
- Policies Internally, we are working to adapt the policy climate to one that is hospitable and supportive of innovative activity (e.g. accommodating innovative activities in tenure dossiers and merit considerations, updating our IP policy to be more open and flexible, working on mechanisms to carve out time for academics to dedicate to entrepreneurial endeavours, etc.).
- What we can offer to industry collaborators We are developing platforms to allow the University to engage more easily with industry in order to share our research assets, such as an inventory of research platforms and an inventory of research areas.
- Web presence As successful communication and promotion are vital, we hope to consolidate these offerings and support activities as well as related initiatives at the Faculty level in one place online, making the information accessible and channeling interested students, faculty, researchers, and industry partners effectively to the points in our "innovation constellation" where they want to engage.

Proof-of-Concept funding – Building on the Seed Fund, RIR will lead the establishment of an
additional funding pool, supported by alumni, which aims to stimulate entrepreneurial activity at
McGill, helping to transform innovative ideas into solutions benefitting the local, national, and
global communities.

Pool	Pool Amount	Award Range	Target/Concept
"Proof-of- Concept" funding	Proof-of-concept (\$1 million to \$2 million annual funding pool)	\$10,000 –\$25,000	Non-research funding to build a prototype, conduct a test, perform other validation activities, etc.

Rationale

McGill must ensure that students and faculty have the resources, skills, and support to be successful innovators, in preparation for launching a start-up, leading a social venture, or championing a new idea. These projects will serve as platforms for linking project teams with qualified coaches, mentors, serial entrepreneurs, executives-in-residence, and financial experts, as well as for gaining access to other partners and resources in the Montreal innovation ecosystem.

Mandate/Goal

- Create a cross-campus, cross-disciplinary platform to stimulate entrepreneurship and provide the financial resources to enable ideas and innovations at the earliest stages to bridge the funding gap in order to establish proof-of-concept or develop a successful prototype.
- Provide a means for qualified alumni and friends of McGill to engage with students, researchers, and faculty in the development of novel technologies, ideas, or solutions for the benefit of society.
- Provide a channel for McGill project teams to access advice from experts, advisors, and mentors about the establishment of key milestones, business planning, go-to-market strategies, etc.
- Attract additional funding and resources from outside sources, such as industry, foundations, alumni, and private individuals with ties to McGill.
- Reinforce McGill's brand association with path-breaking innovation.

Specific Actions and Milestones for Project #3

Item	Expected Date of Completion
 Launch a series of consultative meetings to develop recommendations for establishing a funding pool to support innovation and entrepreneurship in the campus community. Finish consultations with Deans, faculty, students and the broader community about options for enhancing McGill's for-credit entrepreneurship training offerings. Work with University Advancement and the Dobson Centre to complete a plan for matching students, researchers and faculty with mentors from McGill's external networks. 	Fall 2014
 Confirm plans for innovation funding pool and enhanced curricular entrepreneurship training. Complete a plan to expand experiential entrepreneurship learning opportunities at the Quartier de l'Innovation and elsewhere and promote these within the community. Establish a plan for engaging external alumni and friends in coaching and mentorship activities for McGill project teams. 	Winter 2015
 Begin implementation of plans for funding pool and launch the academic approval process for enhanced entrepreneurship training options. Finish reviewing progress and establish action plans for the next academic year. 	Spring-Summer 2015

Year 2 Projects

Unleashing McGill's Full Research Potential

- Support and Optimize Research Facilities A key element of ensuring that McGill remains fully
 compliant with Tri-Agency and Canada Foundation for Innovation (CFI) audit requirements, this
 project will also help transform McGill's research enterprise by adopting a platform approach to
 discovery, coupled with better support for planning and maintaining research tools and
 infrastructure, to optimize the use of available research assets over their lifetime. The anticipated
 timeline for this project is two-to-three years. The primary Year 1 activity will be a mapping
 exercise of McGill's current platforms and other shared research facilities.
- Mobilize research partnerships to address the world's greatest challenges This project will build capacity and networks across the University in order to bridge traditional disciplinary boundaries and contribute to the development of knowledge and solutions around thematic. Progress on this project will be ongoing and incremental.

Community Engagement

- Minor in Entrepreneurship accessible to students in numerous Faculties A proposal for this initiative is being developed by the Desautels Faculty of Management and the Office of the Provost for the consideration of the Deans in late 2014 or early 2015.
- Enhanced opportunities for hands-on entrepreneurial experiences facilitated by the Quartier de l'Innovation, and through a physical and virtual campus-based innovation hub – This project is being conceptualized as part of an overall communications plan to consolidate and promote related opportunities and initiatives across the McGill campuses.