Report on Research Funding and Innovation

Background for Science Faculty Council
March 18, 2014

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Vice-Principal (Research and International Relations)
Impact of Research Funding Performance

Allocations

• Canada Research Chairs
• Canada Excellence Research Chairs
• Graduate Fellowships
• Undergraduate Awards
• Indirect Costs of Research
• Canada Foundation for Innovation Awards

Rankings and Reputation
McGill’s Research Revenue at a Glance

Percentage of Research Funding 2011-12

- Federal: 56%
- Provincial: 14%
- Non-profits: 13%
- Industry: 7%
- International: 6%
- Endowment: 3%
- Other: 1%

$484-million in total research funding
## McGill Results by Agency 2011-12

<table>
<thead>
<tr>
<th>Agency</th>
<th>Overall Funding</th>
<th>Total Dollars Ranking in U15</th>
<th>Market Share</th>
<th>5-year Trend in Market Share</th>
<th>1-year Trend in Market Share</th>
<th>Research Intensity Ranking in U15*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Tri-Agency</td>
<td>$162-million</td>
<td>3rd</td>
<td>8.5%</td>
<td>+0.2</td>
<td>+0.2</td>
<td>2nd</td>
</tr>
<tr>
<td>CIHR</td>
<td>$98-million</td>
<td>2nd</td>
<td>12.1%</td>
<td>+0.2</td>
<td>+0.4</td>
<td>4th</td>
</tr>
<tr>
<td>NSERC</td>
<td>$48-million</td>
<td>3rd</td>
<td>5.8%</td>
<td>+0.1</td>
<td>+0.1</td>
<td>4th</td>
</tr>
<tr>
<td>SSHRC</td>
<td>$15-million</td>
<td>3rd</td>
<td>5.8%</td>
<td>+0.1</td>
<td>+0.7</td>
<td>1st</td>
</tr>
</tbody>
</table>

*McGill has solidified its 2nd place rank in research intensity.*
<table>
<thead>
<tr>
<th>Agency</th>
<th>Overall Funding</th>
<th>Total Dollars Ranking in Quebec</th>
<th>Market Share</th>
<th>5-year Trend in Market Share</th>
<th>1-year Trend in Market Share</th>
<th>Research Intensity Ranking in Quebec*</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRQ</td>
<td>$28-million</td>
<td>2nd</td>
<td>18.7%</td>
<td>+0.8</td>
<td>+1.3</td>
<td>3rd</td>
</tr>
<tr>
<td>FRQ-S</td>
<td>$18-million</td>
<td>2nd</td>
<td>22.5%</td>
<td>+1.7</td>
<td>+2.2</td>
<td>3rd</td>
</tr>
<tr>
<td>FRQ-NT</td>
<td>$6-million</td>
<td>3rd</td>
<td>17.2%</td>
<td>-3.5</td>
<td>+0.4</td>
<td>3rd</td>
</tr>
<tr>
<td>FRQ-SC</td>
<td>$3.4-million</td>
<td>4th</td>
<td>10.6%</td>
<td>+2.4</td>
<td>+0.4</td>
<td>3rd</td>
</tr>
</tbody>
</table>

*Data only available for McGill, UdeM, and Laval
Progress Report: Diversification

Opportunities

• Commercialization
• Industry partnerships
• International funding programs
• Foundations and individuals (philanthropy)
Internationalization

Highlights
• $45-million in total funding since 2008
• $29-million in funding from NIH (2008-12)
• Ranked 1st in Canada for European Commission-funded projects in FP7

Room for improvement
• Mixed results in funding from foreign sources
• Capitalizing on international collaborations
Key Initiative: International Strategy

New emphasis on International Relations

• International Strategy

• Three Pillars
  1. Research Partnerships
  2. Student Recruitment and International Opportunities
  3. Outreach to Global Community

• Key initiatives
Commercialization

Highlights for 2011 (rank in Canada)
• 98 invention disclosures (5th)
• 76 new patent applications (2nd)
• 31 licenses and options executed (4th)
• 10 U.S. patents issued (Tied-4th)
• 1 spin-off created (Tied-8th)

Room for improvement
• Active licensing
• Moving discoveries to market and community
Key Commercialization Initiatives

McGill Innovation Steering Committee
  • Implements new innovation strategy at McGill
  • Stewarding a new era in innovation

Commercialization Review
  • Recommendations on: IP, licensing, processes, research agreements, spin-offs

Room for improvement
  • Emphasis on partnerships with industry, community
  • Streamline patent portfolio
  • Simplify internal processes and researcher support for knowledge translation
Industry Partnerships

Highlights
• $127-million from industry since 2008
• Top three sponsors: AstraZeneca, Pfizer, Novartis

Room for improvement
• New areas of collaboration
• Holistic approach to relationship management
Key Initiative: MUBEC

McGill University Business Engagement Centre (MUBEC)

- One-stop portal for companies
- 140 corporations engaged
- 70 cross-campus referrals
- 40 on-campus visits
- 4 master partnership agreements
- Surpassed fundraising goals for first year

Key objectives
- Grow contributions of top 65 corporate partners
- Engage new contributors
Foundations and Philanthropy

Highlights
• $195-million awarded by foundations since 2008
• More than $1-billion raised through Campaign McGill
• Top contributors
  • Individual donors
  • Canadian Cancer Society Research Institute
  • Multiple Sclerosis Society of Canada
  • Cancer Research Society

Room for improvement
• Coordination across McGill
Research Funding Highlights 2012-13

NSERC Strategic Network *(Dudek, Computer Science)* $5M

NSERC Automotive Partnership Canada Initiative *(Boutet, Engineering)* $4.3M

SSHRC Partnership Grants *(Yachnin, Arts; Sieber, Science)* Total $9M

Most NSERC Engage Grants in Quebec

FRQNT Strategic Clusters *(Li, Science; Gonzalez, Science)* Total $7M

Brain Canada Multi-Investigator Research Initiative *(Murai, Medicine; El-Mestikawy, Douglas/Medicine)* Total $3M

Accelerating Science Award *(Pant Pai, Medicine)*

NSERC CREATE *(Seuntjens, Medicine)* $1.6M

PSRv2 *(Infrastructure, the Neuro/Medicine)* $25M

Amblyotech license *(Hess, Medicine)*

CERC in Human Pain Genetics *(Diatchenko, Dentistry and Medicine)* $10M federal grant

CERC in Green Chemistry *(coming soon)* $10M federal grant
Prizes and Awards Highlights

• 7 Royal Society of Canada Fellows and 1 Medalist
• 2 Ordre nationale du Québec Inductees
• 2 Prix du Québec
• 2 Killam Fellowships
• Sloan Fellowship
• Marcus Wallenberg Prize Winner
Research Funding Performance

Thank you