CIHR’s Strategic Action Plan on Training

Summer Program in Aging 2016
May 9th, 2016

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Senior Advisor, Science Strategy
The purpose of this presentation is to:

1. Present CIHR’s Strategic Action Plan on Training (T-SAP); and

2. Discuss potential implications of the implementation of the T-SAP
CIHR’s Commitments to Training

- CIHR is very active in the training of health researchers
- Since 2000, CIHR has more than doubled its support for health research trainees
- CIHR Institutes have been at the forefront of training innovation within their communities

CIHR invests \approx \$65M/\text{year} through direct awards to trainees in diverse health research areas in Canada and abroad

CIHR invests \approx \$135M/\text{year} to indirectly support trainees through stipends paid off of operating grants and strategic training programs

Canada Graduate Scholarships (CGS) for Masters and Doctoral students (including the Vanier-CGS)

Fellowship programs for postdoctoral fellows (including Banting)

Awards in targeted areas (e.g., Fellowship in Epigenetics, Fellowships within the Clinical Trials Networks in the U.S., etc.)
Health Research Training: A New Vision for CIHR

To generate scientific, professional, and organizational leaders within and beyond the Health Research Enterprise
Challenges in Health Research Training

Health Research is Evolving
Health research is increasingly complex, interdisciplinary and global.

Career Paths are Changing
51,000 PhDs and 6,000 Fellows in Canada. Most (≈85%) do not secure a tenure-track position, yet not enough PhDs according to the OECD.

Expertise in Critical Areas is Lacking
Increased research capacity is required in a number of priority areas to better impact health outcomes and health care systems.
## Meeting the Challenges

### Training Challenges:

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<th>Expertise in Critical Areas is Lacking</th>
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<td>Data-intensive research ● Aboriginal health research ● Health-professional scientists ● Patient-oriented research ● Entrepreneurship and Innovation</td>
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### Future trainees must be:

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<th>Research Leaders of Tomorrow</th>
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<td>who can lead high-impact, multi-disciplinary research in a rapidly evolving environment of advancing technologies and globalization</td>
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<td>who can apply their scholarship and talent to lead innovation across different sectors of Canada’s knowledge-based economy</td>
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<th>Experts in Critical Priority Areas</th>
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<td>who can establish and fill Canadian priority areas of specialized expertise and advance the frontiers of science</td>
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Research Leaders of Tomorrow

To equip trainees to lead high-impact, multidisciplinary health research in a rapidly evolving research landscape, CIHR aims to:

Integrate innovation and interdisciplinarity training requirements in our programs, through:

- Embedding training and mentoring in program design, as appropriate
- Creating specific multidisciplinary and multi-sectoral training programs within and across institutions

Accelerate research independence and leadership, through:

- Providing opportunities for trainees in the College of Reviewers
- Developing training modules on emerging professional expectations and new science/policy/practice frontiers
Leaders Across Knowledge Sectors

To equip trainees to apply their scholarship and talent to lead innovation across different sectors, CIHR aims to:

Empower trainees to take charge of their training and careers, through:

- Requiring individual career development plans from all trainees
- Offering trainees access to professional skills expected from employers

Provide trainees with opportunities for critical hands-on experience, through:

- Providing flexibility to CIHR-funded trainees for hands-on experience (e.g., co-op-like internships) during graduate training
- Redesigning CIHR fellowship programs to support diverse tenure environments, within and beyond the health research enterprise
To equip trainees with specialized expertise in areas of priority as identified in Health Research Roadmap II, CIHR aims to:

<table>
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<th>Area</th>
<th>Goal</th>
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<td>Data Intensive Research</td>
<td>Support data intensive research capacity consortia in different fields to advance digital readiness of our research community</td>
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<tr>
<td>Capacity of Health Professional Scientists</td>
<td>Support health professional training platforms that create a network of health professionals engaged in research to integrate real world experience into health innovations</td>
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<td>Research with/ by Aboriginal Peoples</td>
<td>Support culture-rich research capacity building approaches linked to CIHR’s Pathways initiative and the Indigenous Mentorship Network program to enhance the health and wellness of Aboriginal peoples</td>
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<td>Entrepreneurial Skills</td>
<td>Partner on entrepreneurial skills building to strengthen Canada’s entrepreneurial environment to move health research along the innovation pipeline</td>
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<tr>
<td>Patient-Oriented Research</td>
<td>Continue to partner with the health system to strengthen Canadian capacity to integrate research evidence to enhance patient experiences and outcomes</td>
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To develop an evidence base in order to make informed decisions regarding programming and policies, CIHR aims to:

• Develop and launch an End of Award Report (EAR)
• Develop and launch a Career Trajectory Survey (CTS)
• Develop a new training data reporting centre that will include:
  - Program evaluation findings
  - Data collected from relevant publications
  - Data collected from StatsCan
Questions and Considerations

How can we best implement the T-SAP to influence a culture change in how Canada approaches health research training?

1. Which solutions should be implemented first? Last?

2. Which solution(s) have implications for stakeholders that should be considered? What would be the best approach(es)?

3. Are there additional considerations?

Please provide feedback to:
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613-948-8393
Annex I:
Groups Consulted in the Development of CIHR’s Strategic Action Plan on Training
CIHR developed an extensive engagement strategy to ensure the inclusion of ideas and dialogue across all health research training stakeholders: Universities, Research Funding Agencies, Trainees, Supervisors, and Employers.

### Academic Decision Makers
- Association of Universities and Colleges Coalition (AUCC)
- U15
- Alliance of Canadian Comprehensive Research Universities (ACCRU)
- VPRs, HealthCareCAN
- Canadian Association of Research Administrators (CARA)
- Canadian Association of Graduate Studies (CAGS)
- Association of Faculties of Medicine of Canada (AFMC)
- Canadian Association of PDF Administrators (CAPA)
- Scholarship Liaison Officers (SLO)

### Trainers / Teachers
- Canadian Association of University Teachers (CAUT)
- Selected PIs
- University Delegates
- Foundation Scheme Grantees

### Trainees
- Canadian Association of PDF Scholars (CAPS)
- Canadian Federation of Students (CFS)
- Canadian Alliance of Student Associations (CASA)
- CIHR/ Vanier/ Banting-funded Trainees

### Employers (Government Industry / Other)
- Rx&D
- BIOTECanada
- Conference Board of Canada
- Health Canada
- Public Health Agency of Canada (PHAC)
- Industry Canada
- National Research Council (IRAP)
## Membership of CIHR’s Working Group on Health Research Training (2015-16)

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<tr>
<th>CIHR</th>
<th>Dr. Danika Goosney</th>
<th>Director General, Science, Knowledge Translation &amp; Ethics, CIHR</th>
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<tr>
<td>CIHR</td>
<td>Dr. Marc Ouellette</td>
<td>Professor, Faculty of Medicine, Université Laval - Researcher, Infectious Disease Research Centre, Centre hospitalier de l'Université Laval - Canada Research Chair in Antimicrobial Resistance - Scientific Director (Institute of Infection and Immunity), CIHR</td>
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<tr>
<td>Trainee &amp; MD/PhD</td>
<td>Mr. Eric Zhao</td>
<td>MD/PhD Trainee - University of British Colombia - VP – Internal Elect, Clinical Investigator Trainee Association of Canada (CITAC)</td>
</tr>
<tr>
<td>University</td>
<td>Dr. Janice Eng</td>
<td>Associate Dean, Funding, Faculty of Graduate and Postdoctoral Studies, University of British Colombia</td>
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<tr>
<td>University</td>
<td>Dr. Bernard Jasmin</td>
<td>Professor and Vice Dean of Research, University of Ottawa (AFMC Rep)</td>
</tr>
<tr>
<td>University</td>
<td>Dr. Reinhart Reithmeier</td>
<td>Professor, University of Toronto - Former Chair of Biochemistry and Special Advisor to the Dean of Grad Studies - Fellow of the Canadian Academy of Health Sciences</td>
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<tr>
<td>University</td>
<td>Dr. Chris Shields</td>
<td>Professor, Department of Kinesiology - Acadia University</td>
</tr>
<tr>
<td>University</td>
<td>Dr. Andrew Watson</td>
<td>Associate Dean Research (Graduate Studies and Postdoctoral Affairs); - Professor, Obstetrics and Gynaecology and Physiology and Pharmacology, Western University</td>
</tr>
<tr>
<td>University &amp; CHSPRA</td>
<td>Dr. Adalsteinn Brown</td>
<td>Director, Institute for Health Policy, Management and Evaluation – Head of the Division of Public Health Policy - Dalla Lana School of Public Health, University of Toronto – Co-chair of the Canadian Health Services and Policy Research Alliance</td>
</tr>
<tr>
<td>University &amp; STIHR</td>
<td>Dr. Sharon Strauss</td>
<td>Scientist, Li Ka Shing Knowledge Institute - Director, Knowledge Translation Program - Division Director, Geriatric Medicine - Professor, Department of Medicine, University of Calgary and University of Toronto</td>
</tr>
<tr>
<td>University &amp; NCE</td>
<td>Dr. Chris Mody</td>
<td>Professor and Head, Department of Microbiology, Immunology &amp; Infectious Diseases - Chair, Advanced Education and Training Opportunities Adv. Committee for AllerGen NCE</td>
</tr>
<tr>
<td>Expert Organization</td>
<td>Dr. Jessica Edge</td>
<td>Senior Research Associate - Centre for Skills and Post-Secondary Education, Industry and Business Strategy - Conference Board of Canada</td>
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<tr>
<td>Expert Organization</td>
<td>Ms. Sally Rutherford</td>
<td>Executive Director - Canadian Association of Graduate Studies</td>
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Canada’s training stakeholders are ready for collaborative action

The federal government work in partnership with provinces, private sector and universities to create new opportunities for short-term domestic and international student mobility.

AUCC, 2015

Institutions will lead to ensure that PhD candidates can get rewarding academic and non-academic careers.

World by 2030, U15, 2015

Postdoctoral fellows are questioning whether the classical postdoctoral fellowship as it exists today is failing to prepare them for what is likely their realistic future career path.

CAPS 2009

“...the acquisition of soft skills provides an effective complement to our core business - providing the academic knowledge and the up-to-date methodological and analytical skills required to produce world class graduates.”

CAGS, 2014

Our Government also places a heavy emphasis on inspiring and empowering the great minds of tomorrow. As such, we encourage young people to obtain industry-relevant research and entrepreneurial experience through a variety of initiatives.

Federal Science Technology and Innovation Strategy - 2014

Institutions will lead to ensure that PhD candidates can get rewarding academic and non-academic careers.

World by 2030, U15, 2015

Humanities Unbound: Supporting Careers and Scholarship Beyond the Tenure Track

Rogers, Katina, University of Virginia Library, University of Virginia 2013

Sponsored by: Andrew W. Mellon Foundation, University of Virginia Library
Annex II:
CIHR Institute’s Innovative Training Activities
CIHR’s Strategy Provides Coherence Across Our Training Approaches

- A number of innovative training approaches have been designed for different research communities
- An opportunity exists to broaden impact of training through sharing best practices and aligning efforts

**Mentorship**
- IMHA “Train the Trainer” workshops
- IAPH holistic mentorship model (multiple mentors)
- Mentorship evaluated in the Foundation Scheme

**Career Development**
- ICRH Young Investigators Forum
- IHDCYH Career Development Workshops
- ICR New Investigator Forum
- Travel Awards for Conferences

**Trainee Engagement**
- SPOR Working Group on Training
- CIHR Working Group on Training
- Canadian Health Services and Policy Research Alliance Working Group on Training (IHSPR)

**Skills Development**
- SPOR Capacity Building Framework
- IA Summer Program on Aging for interdisciplinary and networking skills
- INMHA “Alternatives to Careers in the Lab” sessions