Connecting Industry with University Expertise

Samantha Reid
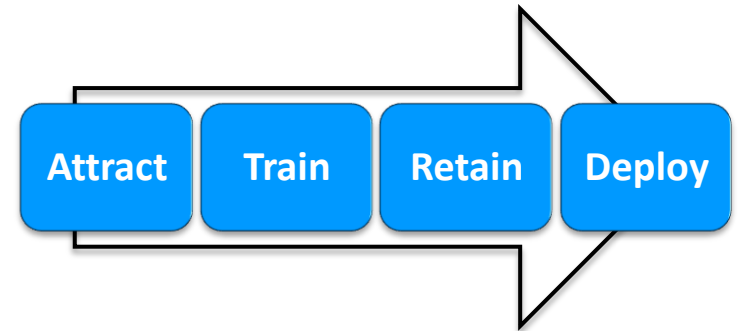**Director, Business Development**

Mitacs Inc.

A not-for-profit organization offering research and training programs in partnership with provincial/federal governments, academia, and industry.

Mitacs programs foster & support innovation and a knowledge-based economy in Canada

- Support world class multi-disciplinary research
- Connect industry partners with leading university researchers to advance:
  - Industry innovation
  - Research excellence
  - Highly Qualified Personnel (HQP) training

Mitacs Programs

- **Accelerate**
  - Grad student and post-doc research projects / internships

- **Elevate**
  - Post-doctoral fellowships

- **Enterprise**
  - Internships to partner applicants in science, technology, engineering and math (STEM) disciplines with STEM companies in Southern Ontario.

- **STEP**
  - Soft skills training for grad students and post-docs

| Attract | Train | Retain | Deploy |

Programs Overview

Accelerate

Objective:

- To initiate and support multi-disciplinary applied research collaborations between university researchers and industrial partners
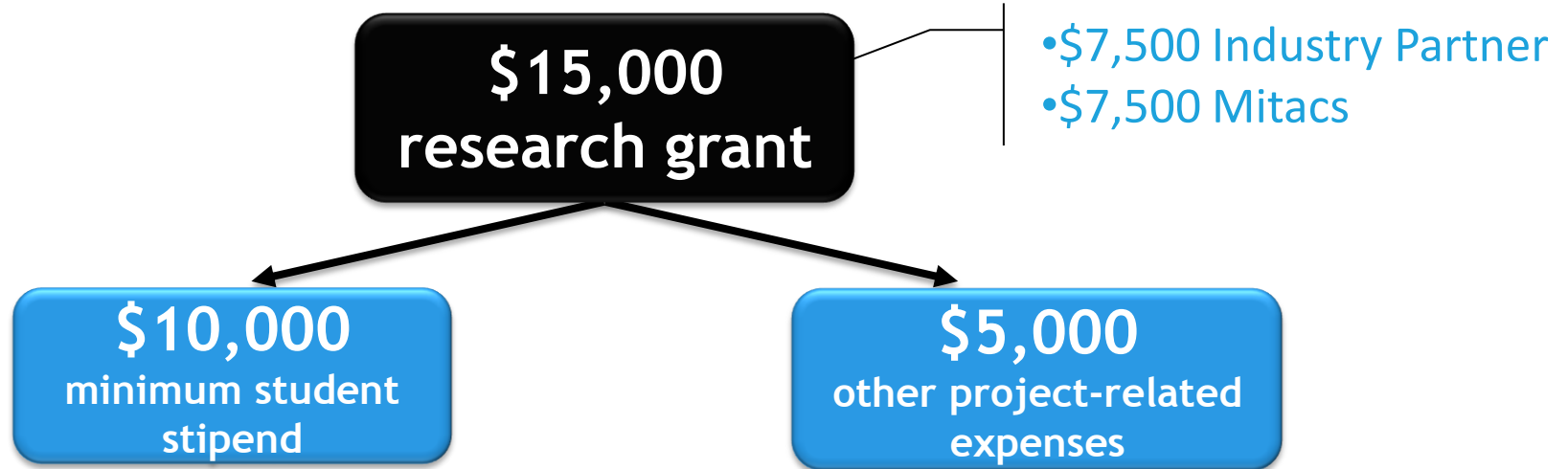
Adopted model:

- Collaborative research projects are made up of multiples (blocks) of 4-month internships

Accelerate: Funding – One Internship Block

$15,000 research grant

- $7,500 Industry Partner
- $7,500 Mitacs

$10,000 minimum student stipend

$5,000 other project-related expenses

- Student spends approx. half time at company, half time at university
- Travel subsidies available

Accelerate: Eligibility & Timeline

- Open to graduate students and post-doc fellows
    - Masters students can do up to 2 internship blocks
    - PhD students can do up to 4 internship blocks
    - Post-docs can do up to 4 internship blocks
    - Note: students are limited to 4 internships per lifetime

- Each internship a 4-month block, which may be stretched to 6 months, depending on need

Accelerate:
Eligible Industry Partners

- **Eligible:** Company / industry / business of any size with offices or facilities in Canada where intern can spend time on-site
  - Domestic or foreign-owned
  - Eligible organisations <u>may</u> also include:
    - Crown Corporations
    - University spin-offs
    - First Nations Development Corporations
    - Industry associations

Accelerate: Application Process

- Application forms are short, quick and easy to fill-out

- No application deadlines

- Peer-reviewed by internal and external experts

- Answers are given within 6 weeks of filing

- Not a contest

- International students are welcome

- Full support of the Mitacs Business Development Team

Accelerate: Funding – *CLUSTERS*

$80,000 research grant

- •$36,000 Industry Partner
- •$44,000 Mitacs

$10,000	$10,000	$10,000
$10,000	$10,000	$10,000
internships		

$20,000 other project-related expenses

- Extra leverage for medium to large projects
- Minimum: 3 students (scalable)
- Minimum total funding: $80K (6 blocks + $20K flexible)
- Scalable: each additional $18K from industry generates $22K from Mitacs

Accelerate: Process

Mitacs
Inspiring innovation
Inspirer l'innovation

Company Initiates

OR

Professor/Student Initiates

- A company contacts a Mitacs Business Development Director to discuss potential project scope

- Company can make use of their contacts at Canadian universities

- Or, sends Mitacs a brief project description, Mitacs makes use of their university network and potential professor & intern introduced to company

- A professor with an identified industry partner & potential intern contacts a Mitacs Business Development Director

THEN

- The intern prepares a proposal, with company and professor, Mitacs staff assist (~ 2 months before start)
- Proposal submitted for peer review (non-competitive)

Mobile Augmentative & Alternative Communication (AAC) Technology

Partner: MyVoice Inc

Discipline: Computer science

University: University of Toronto

- The research project will involve the development of features and techniques to aid people with communication disabilities through the use of consumer mobile devices (ex. smartphones) and tablet computers. Some of the major areas of interest include: location aware vocabularies, predictive sentence construction, and support for alternative input for people that also suffer from motor control problems. This work will directly benefit the partner organization by providing enhancements and breakthrough, cutting-edge, technology features to the MyVoice commercial product. These features will give MyVoice a competitive advantage in the AAC technology market and will provide a significant benefit to users of the application.

Novel 3-D User Interfaces for Improve situation awareness & mobile robot control

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Partner: MacDonald Dettwiler and Associates

Discipline: Computer science

University: University of Toronto

- In an alien or possibly hostile environment, the situation awareness of a remote robot operator will be limited. Map information may not be known beforehand. The site may also be in a dynamic state where changes occur in the surrounding in any moment. The main objective of this project is to develop novel technologies to increase situation awareness of remote robot operators and their ability to intuitively interact with the robots for more efficient operations. It will involve development of the use of commercially available stereoscopic display and motion sensing device for robot-control user interface, as well as an assessment on the development. MDA expects this project will develop proof-of-concept user interfaces based on novel ideas and technologies and test them in several simple scenarios. In the future some of these concepts may be adopted in prototypes and products.

an
ACCELERATE
SUCCESS STORY

Collaborative Recommendation Systems in Online Social Networks

Partner: Thoora Inc

Discipline: Computer science

University: University of Toronto

- Exploration of both theoretically and empirically models of influence over social networks, recommendation systems of online content for users in social networks will be performed. Additionally, the intern will study various different ways to cluster and group the content of networks such as Twitter in an automated fashion. Additionally, the intern plans to study various different algorithmic problems that pertain to information retrieval and online content.

Elevate

- 1-2 year competitive program for post-doctoral fellows
- Builds industrial scientific management capacity and retains recent PhD graduates in Canada by:
  - Transitioning PhD holders from academia to industry
  - Providing on-site research and management training
  - Offering supplementary training, mentorship, and tools for industrial success
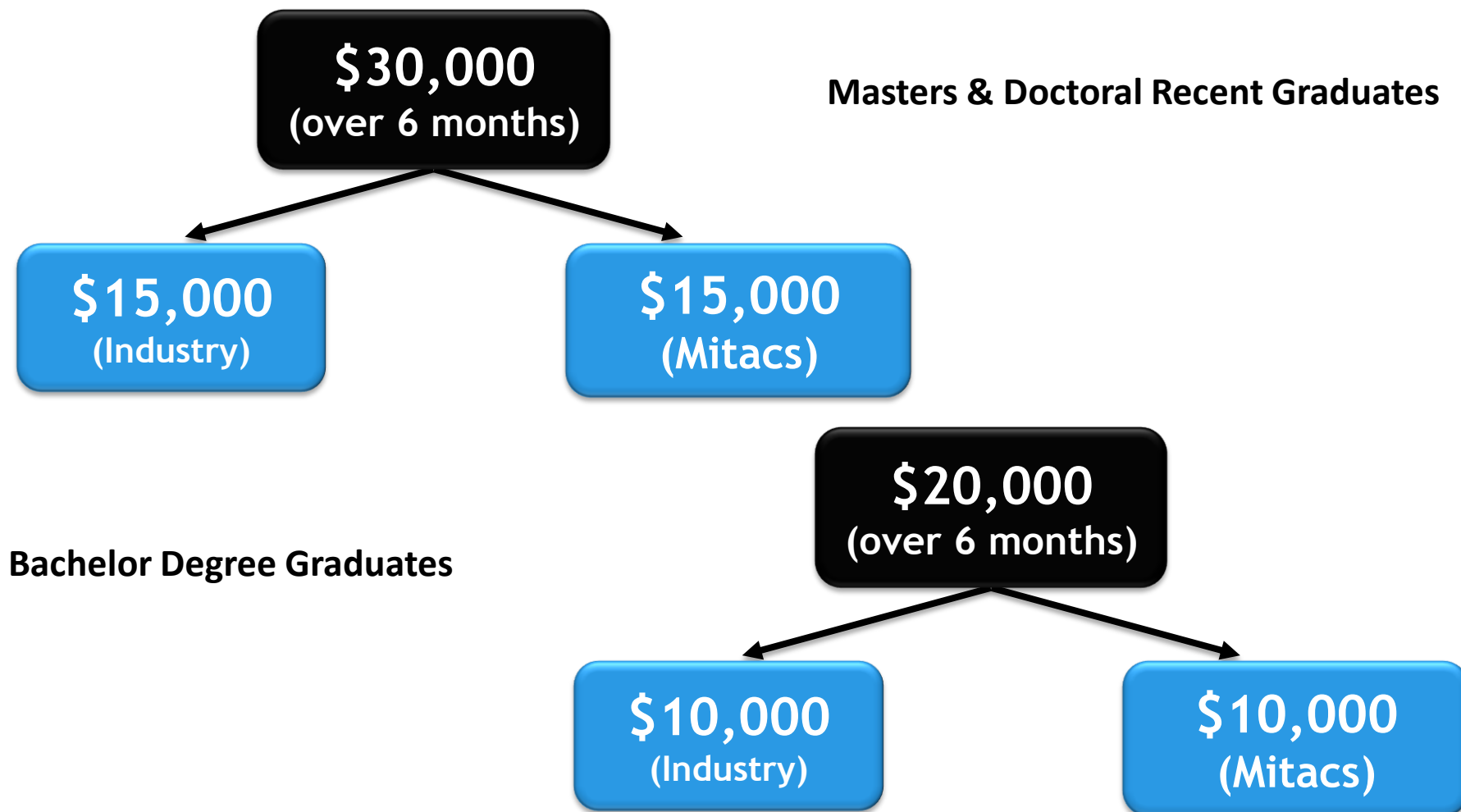 - Creating demand and opportunities within industry

Enterprise

- **ENTERPRISE** is a comprehensive 6-month internship program partially funded by Mitacs that partners applicants in science, technology, engineering and math (STEM) disciplines with small to medium-sized companies (under 1000 employees) operating in a STEM sector throughout Southern Ontario.

- Enterprise helps interns garner relevant experience working on industry-designed projects.
- Businesses gain commercial outcomes and later gain experienced new employees
- The Enterprise program funds 50% of the internship salaries over the 6 month term.
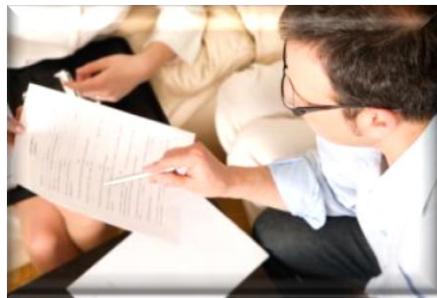
Enterprise: Funding –

$30,000
(over 6 months)

Masters & Doctoral Recent Graduates

$15,000
(Industry)

$15,000
(Mitacs)

$20,000
(over 6 months)

Bachelor Degree Graduates

$10,000
(Industry)

$10,000
(Mitacs)

Step

- Workshops for graduate students and post-doctoral fellows

- Further develops skills essential for navigating today's complex business environment:
  - Project management
  - Communication
  - Entrepreneurship
  - Intellectual property

For More Information

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Industry Partners

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