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Health Science research requires specialized expertise, resources and experience to successfully transition research into applications that can improve people's lives. The University of Toronto (UofT) and its affiliated academic hospitals produce remarkable research output and train world class talent. Our depth of talent, academic resources and patient diversity produces a volume of research output that greatly outpaces our capacity to translate it into viable interventions, products, services and quality improvements with direct medical, economic and social benefits for human health.

But we are not alone.

The EUREKA Institute for Translational Medicine, established in 2008, has been working on building an international movement to acknowledge and address the increasing global gulf between research production and its tangible applications to improve medicine and care. The Institute has grown to include over 400 trainees who have gone through the annual International Certificate Course (ICC) in Syracuse, Italy, and has been working to establish a global network of multidisciplinary and interprofessional institutions united by the common goal of learning how to systematically expedite the efficiency and success rate of translating knowledge into tangible innovations.

In 2018, the University of Toronto, through the Faculty of Medicine, championed by five of its academic departments (Medicine, Surgery, Psychiatry, Pediatrics and Medical Imaging), formally established MEDICAL INNOVATIONS TORONTO: a Eureka Institute Global Partner HUB for Translational Research / Medicine.

Our goal was to establish a program, culture, and network of interprofessional experts who would work with the larger global Eureka community to improve AWARENESS, EDUCATION and COMMUNITY around the mobilization of knowledge for its application, translation, and commercialization beyond research and publication.

In one-year, Medical Innovations Toronto (MiTO) has began linking stakeholders, establishing partnerships, and developing programs to build the interconnected vision of a coordinated network of translational professionals who bring important innovations into practice.

With the support of the Connaught Global Fund, the departments of the Faculty of Medicine and its affiliated hospitals, and the EUREKA Institute, we have began our work to change culture, share knowledge, provide mentorship, promote research translation and train the innovators of tomorrow.

This document summarizes our first year with examples of our accomplishments and partnerships. The report lays out some of the future plans where you too may become involved in joining us in our collective goal of changing lives, improving health and making sure our research has impact.

Uri, Norm & Joseph
MiTO, Directors.
OUR TEAM
MEET OUR CORE TEAM

DR. URI TABORI
Director of Community

DR. JOSEPH FERENBOK
Director of Education

DR. NORMAN ROSENBLUM
Director of Awareness

JULIA MARINESCU
Executive Operations Lead
Dr. Norman Rosenblum
Staff Nephrologist
The Hospital for Sick Children
Nephrology

Senior Scientist
Peter Gilgan Research Institute
Developmental & Stem Cell Biology

Professor
University of Toronto
Depts. Of Paediatrics, Physiology, Laboratory Medicine & Pathology

CIHR
Scientific Director
Institute of Nutrition, Metabolism and Diabetes

Core Faculty
Eureka Institute

Dr. Joseph Ferenbok
Founding Director
Translational Research Program
University of Toronto
Depts of Laboratory Medicine & Pathology

Co-Director
Health Innovation Hub

Dr. Uri Tabori
Staff Neuro-Oncologist
The Hospital for Sick Children
Haematology/Oncology

Senior Scientist
Peter Gilgan Research Institute
Genetics & Genome Biology

Professor
University of Toronto
Department of Paediatrics

Chair
Garron Family Chair in Childhood Cancer Research

Core Faculty
Eureka Institute
Dr. Marc Jeschke
Senior Scientist
Sunnybrook Research Institute
Biology Sciences
Director
Ross Tilley Burn Centre
Sunnybrook HSC
Professor
University of Toronto
Division of plastic and reconstructive surgery, department of surgery

Dr. Michael Taccone
Founder and CEO
Childhood Cancer Survivor Canada
Core Faculty
Eureka Summer School
Neuro-Surgery Resident
University of Ottawa

Dr. Christopher Ahuja
Neurosurgery Resident
University of Toronto
Department of Surgery
CEO/CMO
Inteligex Inc
Dr. Neal Sondheimer

Interim Division Head / Staff Physician
The Hospital for Sick Children
Clinical and Metabolic Genetics

Associate Scientist
Peter Gilgan Research Institute
Genetics & Genome Biology

Assistant Professor
University of Toronto
Department of Paediatrics

Dr. Etienne Sibille

Deputy Director
Centre for Addiction and Mental Health

Senior Scientist
Campbell Chair
Campbell Family Mental Health Research Institute

Professor
University of Toronto
Department of Psychiatry
Pharmacology & Toxicology
Dr. Naomi Matsuura

Associate Professor
University of Toronto
Joint Appointment with the Institute of Biomaterials & Biomedical Engineering

Dr. Michael Farkouh

Vice Chair, Research
University of Toronto
Department of Medicine

Director
Heart & Stroke Richard Lewar Centre of Excellence

Professor
Department of Medicine

Clinician Scientist
University Health Network
Toronto General Hospital Research Institute
OVERVIEW & HIGHLIGHTS
OUR MISSION

To consolidate efforts, infrastructure, and necessary tools to help facilitate a global center of excellence in health science translation using the three core pillars of Awareness, Education, and Community.

OUR VISION

To build an equitable and inclusive community, rich with diversity of ideas, experiences and approaches that advocates a patient and human-centered approach to the translation of research into innovations that advance medicine, health, and care.
THIS YEAR...
# EXECUTION of 2019 PRIORITIES

<table>
<thead>
<tr>
<th>Awareness</th>
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<tbody>
<tr>
<td>Branding &amp; Social Media presence: Logo, website, Twitter, LinkedIn, Instagram</td>
<td>In Progress</td>
</tr>
<tr>
<td>Translational Research Day (Surgery) Planning – Trainees to lead Eureka-like workshop</td>
<td>✓</td>
</tr>
<tr>
<td>Grand Rounds in the TAHSN Community</td>
<td>In Progress</td>
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<table>
<thead>
<tr>
<th>Education</th>
<th></th>
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<tbody>
<tr>
<td>TR Talks: Monthly multidisciplinary talks organized by the TRP</td>
<td>✓</td>
</tr>
<tr>
<td>ICC 2019: Mentors and trainees sent to Italy for the EUREKA 2019 certificate program</td>
<td>✓</td>
</tr>
<tr>
<td>Translational Workshops: UMC Utrecht Summer School</td>
<td>✓</td>
</tr>
<tr>
<td>CIP Day 2019:</td>
<td></td>
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<tr>
<td>~120 MD/PhD, Engineering-MBA, CIP trainees</td>
<td>✓</td>
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<tr>
<td>&gt; 50 Mentors/ Facilitators/ Panelists from the 5 founding departments</td>
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<table>
<thead>
<tr>
<th>Community</th>
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<tbody>
<tr>
<td>Create a College of Mentors and Trainees from Department of Medicine</td>
<td>In Progress</td>
</tr>
<tr>
<td>Translational Outputs: Collaboration with potential stakeholders</td>
<td>In Progress</td>
</tr>
<tr>
<td>Executive Committee &amp; sub-Executive Committees for core pillars</td>
<td>✓</td>
</tr>
<tr>
<td>Translational Grants: Identification funding opportunities / Awarded Connaught Global Fund ($200K)</td>
<td>In Progress</td>
</tr>
<tr>
<td>International Collaboration: Funds for students between translational labs and Eureka Partners</td>
<td>✓</td>
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<tr>
<td>Invited Speakers: International, National, &amp; Local speaker have attended our events</td>
<td>✓</td>
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Connaught Global Fund

Awarded $200,000 in the effort to establish MiTO as a global Translational Research Hub in Toronto

CIP Day 2019

Over 120 CIP, Md/PhD Students, Engineering – MBA students and > 50 Mentors, experts, and panelists participated in CIP Day 2019; facilitated by MiTO

Executive Committee

An executive committee has been established with faculty across the 5 founding Departments of Medicine.

TR Talks

7 Total TR Talks reached in 2019-2020 year with local, national, and international speakers and moderators

HIGHLIGHTS
3 STRUCTURE
To enhance awareness and execute an understanding of translational research and its importance within the translational community in Toronto

To create an international educational translational network centered in Toronto

To establish an active network of transdisciplinary translational expert practitioners and key opinion leaders
TORONTO AFFILIATIONS

Faculty of Medicine

- Department of Medicine
- Department of Psychiatry
- Department of Imaging
- Department of Paediatrics
- Department of Surgery

TAHSN Community

- University Health Network
- The Hospital for Sick Children
- Sunnybrook Health
- Centre for Addiction and Mental Health
- Sinai Health System
- Unity Health Toronto Sciences Centre
- Holland Bloorview
- Baycrest Health Sciences
- Women’s College Hospital
- University of Toronto
Mission of the Eureka Institute: To develop a community of translational medicine professionals equipped to inspire and catalyze the application of discoveries for the benefit of human health

Partnership between MiTO and Eureka Institute: Using seed funding from the 5 departments of Medicine (Medicine, Paediatrics, Surgery, Imaging, and Psychiatry) and support from the Provost and vice Dean of Medicine, the University of Toronto entered a formal partnership with the Eureka Institute as part of its strategy to create an effective centre for translational activities

https://eurekainstitute.org
2019 – 2020
PRIORITIES
<table>
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<tr>
<th>Establishing a Presence</th>
<th>Grand Rounds</th>
<th>TR Workshops</th>
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<tbody>
<tr>
<td>✓ Social Media: Keep updated with translational projects via Twitter, LinkedIn, and Instagram</td>
<td>✓ Facilitation of Grand Rounds within the TAHSN Community to spread awareness of Translational Research and Medicine</td>
<td>✓ Catered to MDs, CIP Trainees, and MD/PhDs. Involvement of short half day courses and symposia</td>
</tr>
<tr>
<td>✓ Translational Research Days and Awareness Days within the 5 Departments of Medicine</td>
<td>✓ Wide range of transdisciplinary translational discussions</td>
<td>✓ Will occur in both existing conferences and symposia or MiTO facilitated organization</td>
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TR Talks

- Monthly multidisciplinary discussions surrounding topics of Translation
- Encourage scientists, clinicians, and students to think about implementation of research and science in collaborative and innovative ways

Translational Workshops

- Eureka Institute: Sent 2 mentors and 4 trainees from Toronto to ICC 2019
- UMC Utrecht Summer School: Sent 4 mentors and 4 students from Toronto in 2019

CIP Day

- Facilitated by MiTO and organized through the Clinical Investigator Program within the University of Toronto
- 2019: ~120 students, and over 50 Mentors attended
- Review clinical case study → implement translational learnings → pitch solutions
## Community - Overview

### College of Mentors
- **Aim:** ~50 Mentors who are experts in their specified field.
- Mentors will guide translational projects, and provide insight into how to effectively carry a project forward between clinicians, scientists, and students.

### Grants
- Participation of Mentors in grant applications for members of MiTO.
- Indicate funding opportunities and use grants to fund translational projects facilitated by MiTO.

### Translational Outputs
- Collaboration with potential stakeholders begins.
- SickKids Paediatrics, SickKids Research Institute, H2i, Medicine by Design, CRIS.
5 ACTIVITIES
TR TALKS

300+ ATTENDEES
~60-80 Attendees per session

25+ PANELISTS
Topics: Barriers to Innovation, Funding Translation, Translating Clinical Insights, Intellectual Property, Implementation in Clinics and Community, Roles of Patients in Research, Failures and Frontiers in TR

MULTIDISCIPLINARY AUDIENCE
Trainees, Researchers, Scientists, Clinicians, Community

Geared to an inter-professional community of clinicians, researchers, and trainees, the series is intended to provoke discussion and community building. The Talks are intended to provide an overview of the health innovation landscape while introducing the ‘tools and competencies’ needed to systematically ‘translate’ science more effectively.
CLINICAL INVESTIGATOR PROGRAM DAY 2019

120 TRAINEES
Trainees ranged from CIP Trainees, MD/PhD students, Engineering – MBA students

50+ MENTORS
Multidisciplinary panelists, experts, clinicians, and scientists

EUREKA CASE STUDY
Trainees worked together to pitch a solution for a Eureka-like case study

“Defining academic success!”

CIP Day 2019 enabled multidisciplinary members of the translational research community to participate in Eureka – like workshops. Trainees worked together to pitch solutions for the prepared case study to Mentors; Shark Tank style.
Dr. Felix Ratjen
Department of Paediatrics
University of Toronto
The Hospital for Sick Children

Dr. Chris Ahuja
Department of Surgery
University of Toronto
UHN

Dr. Raphael Schneider
Department of Medicine
University of Toronto
St. Michael’s Hospital

Dr. Gwyneth Zai
Department of Psychiatry
University of Toronto
CAMH

Dr. Anna Zavodni
Department of Imaging
University of Toronto
UHN
EUREKA: 12th ANNUAL ICC PROGRAM

Dr. Etienne Sibille
Department of Psychiatry
University of Toronto
CAMH

Dr. Mamatha Bhat
Department of Medicine
University of Toronto
UHN

Dr. Amanda Ricciuto
Department of Paediatrics
University of Toronto
The Hospital for Sick Children

Dr. Farzad Khalvati
Department of Imaging
University of Toronto
Sinai Health System

Dr. William Chu Kwan
Department of Surgery
University of Toronto
PARTICIPANTS

*With deep regrets, we would like to acknowledge that Dr. Amin Jebelli was a victim of flight PS752 on January 9, 2020*
FUTURE PLANS
2020 - 2021
ESTABLISH BRAND
Implement a website, official logo, and promote social media activity

ENGAGE COMMUNITY
Encourage clinicians, scientists, and trainees within the translational research field to form a community. See Roadmap below

FACILITATE PARTNERSHIPS
Activate our community of translational research experts to collaborate together in order to push the boundaries of medicine and research within the University of Toronto and the Eureka Institute.
# ROADMAP: 2020 - 2021

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<tr>
<th>Awareness</th>
<th>Education</th>
<th>Community</th>
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<tbody>
<tr>
<td>Translational Research Day (Surgery)</td>
<td>Q2</td>
<td>Translational Research Day (Surgery)</td>
</tr>
<tr>
<td>TR Workshops</td>
<td>Q1-Q4</td>
<td>TR Workshops</td>
</tr>
<tr>
<td>Grand Rounds in the TAHSN Community</td>
<td>Q2-Q4</td>
<td>Grand Rounds in the TAHSN Community</td>
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<tr>
<td></td>
<td>Q3</td>
<td>EURREKA 2020/21: Mentor and students sent to Italy for the ICC 2020 &amp; ICC 2021 certificate programs</td>
</tr>
<tr>
<td></td>
<td>Ongoing</td>
<td>Translational Workshops: UMC Utrecht Summer School 2020 &amp; 2021</td>
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<tr>
<td></td>
<td>Ongoing</td>
<td>Certificate Program</td>
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