



## MEMORANDUM

To: Barbara H. Eccles  
University Secretary

From: Dr. Constance Russell  
Chair, Senate Research Committee 2016/2017

Senate Meeting Date: Monday, January 23, 2016

Subject: Senate Research Committee – Report to Senate

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One SRC meeting occurred since my last report (January 13, 2017).

### **New Centre**

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The SRC recommended that the proposal for the new Centre for Innovation and Entrepreneurship be approved.

### **Research Awards**

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The SRC reviewed Distinguished Researcher Award applications and the results will be announced during Research and Innovation Week.

Sincerely,

*Constance L Russell*

Dr. Constance Russell  
Chair, 2016-2017  
Senate Research Committee



## Proposal for the Centre for Innovation and Entrepreneurship Research

Submitted by:

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Dr. Alla Reznik, Department of Physics  
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January 10, 2017

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# Proposal for the Centre for Innovation and Entrepreneurship Research

## Purpose

The primary purpose of the Centre for Innovation and Entrepreneurship Research (CIER) is to promote and support research on innovation and entrepreneurship at Lakehead University.

## Objectives

The objectives of the CIER are:

- To facilitate interdisciplinary research collaborations among faculty members at Lakehead University related to innovation and entrepreneurship.
- To support undergraduate and graduate research on innovation and entrepreneurship.
- To identify and explore innovation and entrepreneurship-related research topics that are relevant to the University, the local community, and beyond.
- To seek research funding from external sources for innovation and entrepreneurship-related research projects and programs.
- To seek opportunities to augment the curriculum and programming for students related to innovation and entrepreneurship.

## Definition

For the purposes of the CIER, innovation and entrepreneurship is broadly defined to include: technological and science-based innovation, innovations in business operations, start-ups, new venture creation, social entrepreneurship, institutional entrepreneurship, intrapreneurship, commercialization venture management, small and family-led business, economic development through business creation, start-up financing, service, healthcare innovation, and other related topics.

## Core Values

The CIER exists to promote scholarship in the area of innovation and entrepreneurship and is guided by the following values:

- *Integrity* – we will maintain the highest ethical standards in research
- *Curiosity* – we will encourage intellectual curiosity
- *Collaboration* – we will promote interdisciplinary collaboration
- *Capacity* – we aim to build capacity within our members, students, and the community through the centre activities

## Relevance

The CIER would support the University's mandate by aligning with the pillars of the Strategic Plan, specifically, nurturing scholarship, community engagement, and economic development.

With respect to nurturing scholarship, the CIER will enable quality interdisciplinary research by providing an attractive forum for researchers at Lakehead to find resources and partnerships for their research projects. The findings would be published in scholarly outlets as well as through a CIER working papers series.

Regarding community engagement, the Centre will provide opportunities for community-engaged scholarship that will respond to local needs for information. This may involve researchers seeking partners for their research projects, or community members seeking assistance from researchers.

Research conducted within the CIER will help to identify evidence-based practices that will foster unique opportunities for economic development in Northwestern Ontario and Simcoe County. The President and Vice-Chancellor has made a commitment to economic development through entrepreneurship and innovation.

Additionally, the CIER will bolster on-campus entrepreneurship activities offered through Partners in Innovation and Entrepreneurship (PIE) and the Economic Development and Innovation (EDI) Office as well as link to entrepreneurship curriculum currently offered by the Faculty of Business Administration. To catalyze community engagement, the CIER will also draw upon existing partnerships and linkages with community partners in northwestern Ontario and Simcoe County.

## Life Expectancy

The CIER is intended to operate indefinitely. The Centre would be evaluated in 2020 (or three years after its inception).

## Budget

| <b>Start-up Revenues</b>                                  |               |   |
|---|---------------|---|
| <i>Item</i>   | <i>Amount</i> | <i>Comment</i>  |
| Office of Research Services                               | \$5,000       | Start-up funds  |
| Faculty of Business Administration                        | \$9,100       | To support start-up and provide course release for the CIER Director  |
| <b>Total</b>  | \$14,100      |   |
| <b>Start-up Expenses</b>                                  |               |   |
| <i>Item</i>   | <i>Amount</i> | <i>Justification</i>  |
| Website development and support                           | \$500         | A website will serve as a portal for information exchange and promotion of upcoming events.                     |
| Promotional materials                                     | \$1,000       | Promotional materials include brochures, posters, banners, etc. for the CIER generally and for specific events. |
| Guest Speaker fees & travel expenses                      | \$3,000       | Raises the profile of the CIER - draws researchers and generates opportunities for collaborations to occur.     |
| Technology services for linkages to Orillia campus        | \$500         | Covers fees/costs for inter-campus technology and support   |
| Research expenses for new collaborative research projects | \$2,000       | Encourages collaborative research projects by providing nominal funds to initiate new projects.                 |
| Course release for the Director                           | \$7,100       | Enables operational management requirements.  |
| <b>Total</b>  | \$14,100      |   |

## Budget -- Future Growth and Development

Additional funding from overhead for external grants will be used to expand programs and services available through the program. The members of the Centre will actively seek major funding grants (e.g., SSHRC) and other sources of funding that become available.

Additionally, we are currently working with the Philanthropy Office to seek funding for a Post-Doctoral Fellowship in Entrepreneurship. We have also explored the potential for a Fullbright Visiting Scholar. If the funding is received, these positions would be associated with the Faculty of Business Administration and CIER.

## Research Plan

The proposed research centre intends to generate inter-disciplinary research in innovation and entrepreneurship initiated by individual members of the centre. It does not plan to execute a specific program of research since research interests could vary across members of the centre within the broad domains of innovation and entrepreneurship. The intention is to encourage individuals from a variety of academic units (and potential community partners) to collaborate on a range of research activities related to innovation and entrepreneurship.

We furnish below examples of the current (work-in-progress) and proposed research projects of faculty members in the Faculty of Business Administration whose research focus is in the broad domains of innovation and entrepreneurship.

### Examples of current and proposed research

1. Venture Capital:
  - a. Distributing Startup Equity: A Theoretical Foundation for an Emerging Practice.
2. Crowdfunding:
  - a. Can crowdfunding disrupt professional investing in startups?
  - b. Crowdfunding: Factors that make projects fundable.
  - c. How should equity be priced in an equity crowdfunding campaign?
  - d. Of the All-or-Nothing and the Keep-It-All models adopted by crowdfunding platforms, is one model superior to the other under specific circumstances or to specific parties involved in crowdfunding campaigns?
3. Entrepreneurial Capabilities:
  - a. New capability development in different contexts (e.g., small creative industry companies, international strategic alliance in established companies, industry-academia interactions, etc.)

### Speaker Series

A speaker series will be organized each year. The speakers will be both Lakehead scholars and researchers from other institutions. This activity will help to promote the profile of the Centre with the Lakehead community and local entrepreneurship ecosystems.

The speaker series will provide CIER members to share their research findings with the broader community. Bringing researchers from other institutions to Lakehead will facilitate discussion that could lead to new collaborations.

## Commitments by Lakehead University

The administration of research grants will be supported by the Office of Research Services and Financial Services.

Technology support will be required to assist with the linkages to the Orillia campus. High quality video technology is essential for this purpose. There is typically a fee for this service.

## University Facilities

The CIER will be housed within the Faculty of Business Administration initially using existing resources and office space. When the Entrepreneurship Centre (to be named) is opened in the CASES building (projected date Spring 2018), space will be available in the Centre. The CIER will be co-located with PIE and the EDI to facilitate interaction with the students, staff, and entrepreneurs.

The CIER will also use audio-visual equipment and facilities to connect activities with the Orillia campus.



## Membership

The membership of the CIER will be comprised of individuals who are engaged in research related to innovation and entrepreneurship. The nature of the research is broadly defined, to include a membership that is as diverse as possible. This decision is intentional because the interaction of researchers with different interests may lead to the development of new research initiatives.

The Criteria to become a Member in the CIER are:

- An appointment at Lakehead University (limited term-appointments, tenured or tenure-track faculty members, post-doctoral fellows, contract teaching staff).
- Engagement in research related to some aspect of innovation and entrepreneurship. This research may relate specifically to the study of innovation and entrepreneurship or it could involve research that relates to innovation associated with the development of technologies or intellectual property that may be studied in the context of commercialization.

The Criteria to become a Student Member in the CIER are:

- Registration in a degree program at Lakehead University.
- An interest or involvement in a research project related to innovation and entrepreneurship (broadly defined).

The Criteria to become an Academic or Industry Associate of the CIER are:

- Reserved for individuals from outside Lakehead University who are engaged in a project with a CIER Member that is related to innovation and entrepreneurship (broadly defined).
- An Academic Associate may be a community-based researcher, or a faculty member at another university.
- An Industry Associate may be a member of a community organization, an entrepreneur, innovator, or another individual who is involved in the delivery of services to entrepreneurs

## Application Process

Individuals interested in becoming a Member, a Student Member, or an Associate of the CIER must submit a letter of intent and a curriculum vita to the CIER Director. The letter of intent should describe their involvement in relevant research and their interest in joining the Research Centre. Applications will be reviewed by the Director and/or Executive Committee (TBD) and a decision provided to the applicant in writing.

## Governance

The CIER will have a Director who will be responsible for the operations of the Centre. The Director will report to the Vice-President, Research and Innovation. A management committee comprised of the Director and three members of the CIER (*recommended by the membership*) will assist the Director with the operations of the Centre. The specific Terms of Reference for the management committee will be developed by the committee within the first year.

The CIER will use the Entrepreneurship Centre Advisory Board (to be named, in development) as its Advisory Board. This linkage will help with the integration of the research centre with other entrepreneurship and innovation programming as well as the shared use of space and other resources.

## Employment Opportunities

The CIER will seek funding and grants to hire graduate and undergraduate research assistants, thereby providing employment opportunities for students.

The CIER may provide opportunities for a support staff (administrative assistant), subject to future funding.

Positions such as a Post-Doctoral Fellow or Visiting Scholar may become available, subject to funding.

## Personnel

At the start, the only personnel will be the Director, who will receive a 0.5 FCE course release to coordinate activities within the CIER. This course-release is provided by the Dean, Faculty of Business Administration, for a FOBA Faculty member to act as Director and is guaranteed for the first year of operations (and subject to review after the first year).

Additional positions may be added in the future, subject to funding (e.g., visiting scholar, post-doctoral fellow, administrative support).

### Biographies of Founding Members

**Dr. Michael S. Dohan**, PhD, is an Assistant Professor in Information Systems in the Faculty of Business Administration at Lakehead University. Michael conducts academic research on the application of innovative technologies in healthcare, and has a research interest in new technology and economic concepts such as data analytics, Internet of Things (IoT), crowdfunding, crowdsourcing, and social media. His research has been published in top-tier journals in his field, including the Communications of the Association for Information Systems (CAIS), as well as included in the conference proceedings of the America's Conference for Information Systems (AMCIS), Hawaiian International Conference for Systems Sciences (HICSS), Administrative Studies Association of Canada (ASAC), and the Institute for Operations Research and the Management Sciences (INFORMS). A 15-year veteran of developing technology in the media industry, and a developer of other innovative technologies, Michael teaches classes where entrepreneurship and innovation content would greatly enhance current course delivery methods, such as Systems Analysis and Design, Business Intelligence and Website Design and Administration. He has served on the Startup Weekend Thunder Bay planning committee and DemoCamp Thunder Bay committee, along with members from the RIC, Confederation College, Lakehead University's Economic Development Office, and the City of Thunder Bay's Community Economic Development Commission (CEDC).

**Dr. Vijay. Mago** is also an Assistant Professor of Health Informatics in the Department of Computer Science at Lakehead University in Ontario, where he teaches and conducts research in areas including decision making in multi-agent environments, probabilistic networks, neural networks, and fuzzy logic-based expert systems. Dr. Mago received his Ph.D. in Computer Science from Panjab University, India in 2010. In 2011 he joined the Modelling of Complex Social Systems program at the IRMACS Centre of Simon Fraser University before moving on to stints at Fairleigh Dickinson University, University of Memphis and Troy University. He has served on the program committees of many international conferences and workshops. Dr. Mago has published extensively on new methodologies based on soft computing and artificial intelligent techniques to tackle complex systemic problems such as homelessness, obesity, and crime. He currently serves as an associate editor for BMC Medical Informatics and Decision Making and as co-editor for the Journal of Intelligent Systems.

**Dr. Meyyappan Narayanan** received the B.Eng. degree in mechanical engineering from the University of Madras, Chennai, India; the M.S. degree in engineering management from the Birla Institute of Technology and Science, Pilani, India; and the M. A. Sc. and Ph.D. degrees in management sciences from the University of Waterloo, Waterloo, ON, Canada, respectively. He has taught at the University of Waterloo and Fairleigh Dickinson University (FDU). He is an Assistant Professor at Lakehead University's Faculty of Business Administration, Thunder Bay, ON, Canada. Prior to joining academia, he was with the petrochemical and engineering industries in India and Singapore. His current research interests include financing of innovation and his research primarily applies to theoretical scrutiny of equity division in venture capital and crowdfunding of start-ups. He won an internal university-level grant for his research in crowdfunding at FDU. Dr. Narayanan is a member of the editorial boards of the *International Journal of Business Analytics* and *IEEE – Transactions on Engineering Management*, and also reviews regularly for the *Journal of Business Venturing* and the *Journal of Small Business Management*. His works have been published in *Applied Economics Letters* and *IEEE – Transactions on Engineering Management* and, as a best paper, in the *Academy of Management Proceedings*(2013). He received a Distinguished Reviewer Award in the Entrepreneurship Division at the 2013 Annual Meeting of the Academy of Management. Mey has taught Innovation and Entrepreneurship and Management Theory at the graduate level, and Economic Impact of Technological Change and Entrepreneurship, Strategic Management of Technology, Business Planning, and Advanced Business Planning at the undergraduate level.

**Dr. Alla Reznik** is a Canada Research Chair in Physics of Molecular Imaging and an Associate Professor in the Physics Department, Faculty of Science and Environmental Studies. She is also affiliated as a Senior Scientist in the Thunder Bay Regional Health Research Institute (TBRHRI). Dr. Reznik has completed her PhD in solid-state physics at the Technion- Israel Institute of Technology. After several years as a Senior Physicist at the GE Medical Systems she decided to return to academia and accepted a Research Associate position at the University of Toronto, Canada. In 2008 she was appointed a Canada Research Chair in Physics of Molecular Imaging and in 2013 re-appointed as a Canada Research Chair in Physics of Medical Imaging. She is a specialist in photoconductive materials and technologies for radiation medical imaging. The focus of her work is on solid-state technology for organ-specific Positron Emission Tomography (PET). The goal is an improvement in resolution and sensitivity over commercially available PET imagers. Another focus of her work is on advanced low-dose direct conversion x-ray imaging detectors based on novel x-ray-to-charge transducers. Reznik group's PET research has led to the launch of Radialis Medical – the first joint Lakehead –TBRHRI spin-off company, which will produce a commercial version of the technology for breast cancer detection.

**Dr. David Richards** is the Assistant Dean, Coordinator, Graduate Studies, and an Associate Professor, Organizational Behaviour and Human Resources in the Faculty of Business Administration. He joined Lakehead University in 2008 and has taught graduate and undergraduate courses in organizational behaviour, research methods, and current issues in management. His research interests relate to interpersonal relationships at work, attachment theory at work, the management of human capital, organizational citizenship, and ethics. Prior to joining Lakehead, he had careers in social work and health services management. In 2012, David received a Standard Research Grant from the Social Sciences and Humanities Research Council (SSHRC) for \$18,981. His research has been published in the *Journal of Applied Psychology*, *Leadership Quarterly*, and the *Human Resources Management Journal*. David was involved in the grant application and development of Partners in Innovation and Entrepreneurship (PIE), the On-Campus Entrepreneurship Activities program funded through the Ontario Centres of Excellence. He sits on the PIE Advisory Committee and is involved in the administration of that program.

**Dr. Farshid Shams** is an Assistant Professor of Strategic Management and Entrepreneurship in the Faculty of Business Administration at Lakehead University. He received his PhD in Strategic Management from the University of Bath, United Kingdom. He also holds an MBA from the University of West London (UK) and a Bachelor of Science in Industrial Engineering. Dr. Shams has taught various Business and Management courses at both undergraduate and graduate levels. Farshid's doctoral research was about the strategic entrepreneurial evolution of subsidiaries in transnational professional service enterprises on the dichotomy of global integration versus local responsiveness. In particular, he focused on the transnational higher education institutions, which are operating on a free-market economic infrastructure while being non-profit organisations by nature. His current research is about the implications of competing institutional logics in new organisational forms. He is particularly interested in the pluralistic settings of hybrid organisations, which stand at the intervening space between market, state and civil society. Additionally, he has started studying the micro-dynamics of social entrepreneurship in social enterprises.

**Dr. Yuayuan Wu** is an Assistant Professor of Entrepreneurship and Strategy at the Faculty of Business Administration, Lakehead University (Orillia Campus), Ontario, Canada. Her research focuses on the entrepreneurial processes of capability and enterprise development. She has published in multiple journals, including *Journal of Business Research*, *Journal of International Entrepreneurship*, *Journal of Contemporary Management*, and *Global Business Review*. She has supervised students and taught a broad range of courses in the areas of strategy, entrepreneurship, and international business. She recently received SSHRC funding for a research project that focuses on international collaboration in the aerospace industry.

**If the CIER is approved, there will be a broad invitation sent to faculty members from various academic units across both campuses to solicit interest in joining.**

## Legal Implications

There are no existing contracts.

Copyright and intellectual property will be governed by the University Policy on Intellectual Property.