

**LAKEHEAD UNIVERSITY
STRATEGIC RESEARCH PLAN
SUMMARY**

2012-2017

INTRODUCTION

Lakehead University is a leading research institution in Northern Ontario and plays a key role in the region's social and economic future. Established in 1965, Lakehead offers a diverse range of undergraduate and graduate programming with 10 faculties and a total enrolment of 7100 full-time students: Social Sciences and Humanities, Science and Environmental Studies, Business Administration, Education, Engineering, Medicine, Natural Resources Management, Health and Behavioural Sciences, Law, and Graduate Studies.

Lakehead University's research activities are a testament to its growing commitment to become one of the top 25 research-intensive universities in Canada. With twelve Canada Research Chairs, two Ontario Research Chairs, 323 full-time faculty members, 11 research centres, 32 graduate programs (752 full-time graduate students), and external research funding that has more than doubled within the last ten years, Lakehead's sustained development in this area is clear. In the latest MacLeans rankings, Lakehead is first in Ontario in SSHRC Grants and Total Research Dollars. In the 2013 Research InfoSource rankings of Canada's top 50 research universities, Lakehead ranked second in Canada and first in Ontario in the primarily undergraduate universities category. Given our recognition of the value and expertise that faculty who are actively engaged in creative and scholarly work bring to their teaching, we are in a position to further strengthen the quality of research at Lakehead by recruiting the best and brightest talent through the Canada Research Chairs Program and by investing in state of the art infrastructure through partnerships with the Canada Foundation for Innovation and Ontario Research Fund.

MAJOR OBJECTIVES OF THE PLAN

- To strengthen research and scholarly activity at Lakehead that is of outstanding quality and leading in its innovation, especially in strategic interdisciplinary research areas that are prominent at, or unique to, Lakehead University among Canadian universities, while allowing for the development of new emerging areas of concentration, with the long-range objective of creating new institutional centres of research excellence;
- To enhance the training of highly qualified personnel (HQP is defined as undergraduate/graduate students and postdoctoral fellows), by increasing the number of HQP, and by providing a highly stimulating research environment for all of our students that establishes Lakehead as a leader in the integration of research and teaching;
- To ensure our researchers have access to superior research resources and infrastructure and to manage these to ensure their effective and efficient use;

- To develop new research partnerships with communities, businesses, industries, government, other academic institutions and other partners, regionally nationally and internationally; and
- To enhance knowledge mobilization, translation, transfer and application in order to maximize their benefits to society in northern Ontario and beyond.

PRIORITY AREAS FOR RESEARCH

All research and scholarship will be valued by Lakehead University. However, in order to become one of the top 25 research-intensive universities, Lakehead University recognizes that it must focus its resources towards priority research areas where we have a unique advantage and strength. Specifically, priority areas will encompass clusters of research activity which 1) present opportunities for interdisciplinary research and/or partnerships with not-for-profit organizations, government, and the private sector; 2) present an opportunity to develop new graduate programs, especially at the PhD level, or strengthen existing graduate programs; 3) have a proven ability or strong potential of attracting peer-reviewed and other external funding; 4) will benefit northern Ontario and Canada in terms of social and economic development; and 5) will foster synergistic research activity among our researchers that will benefit Lakehead University, the region, and Canada as a whole. The following six research priorities have been identified for further development where new resources will be allocated including Canada Research Chairs and Canada Foundation for Innovation (CFI) grants (priority areas are listed in alphabetical order):

Advanced Systems and Technologies

A significant group of researchers from various Faculties work in Advanced Systems and Technologies. These areas of research endeavour include integrated hardware, software, and communication links, information and communications technology, control systems, along with advanced computing technologies. Other areas include mobile computing for learning and health-related applications, and robotics, as well as in environmental biotechnology, biomedical and molecular biotechnology, material science and nanotechnology.

Cultures, Societies, and Social Justice

Researchers working at Lakehead University in this priority area examine pressing issues facing societies today as well as important forces shaping cultures and societies such as popular culture, the arts, communication, education, politics, globalization, the past and our relation to it, and the future and our hopes for it. Research in this priority area includes those who are active in the field of cultural production itself through their creative and performance activities and also those who engage in text-based analysis and criticism.

The Environment and Natural Resources

Lakehead University researchers are known as experts on a range of areas related to the environment and natural resources. Examples include: climate change, community resilience, ecology, environmental biotechnology, environmental education, environmental health, environmental literature,

environmental psychology, food security, green chemistry, mining and exploration, mitigation and adaptation, nature-based tourism, outdoor recreation, parks and protected area management, water quality, watershed protection, and wildlife conservation.

First Nations, Métis and Inuit (Indigenous) Research

Lakehead University recognizes the importance of advancing Indigenous (First Nation, Métis and Inuit) research at Lakehead University. Over 30 researchers at Lakehead University are involved in research projects and/or partnerships with Aboriginal communities. The impact of Indigenous research focused on community needs in areas ranging from the arts to health, education, science, land management and culture, is far reaching.

Health Research Across the Life Span

Lakehead University and the Northern Ontario School of Medicine have a growing group of researchers working in the area health-related research. Researchers in this area aim at making a concrete difference in the health of our communities. The research covers the age continuum, from children to youth to older adults, underscoring that health in old age is often determined by one's health in youth.

Northern Studies

Northern-based research has always been a cornerstone of Lakehead University and has added a distinct element to its identity. Originally limited to Lakehead University's regional mandate to serve Northern Communities, the scope of such research is now international, encompassing the entire circumpolar north. There is a growing need to increase our commitment to northern research to deal with emerging regional, national and international issues, including the areas of First Nation, Métis, and Inuit issues, education, health, law, sustainable development, and resource management.

DISTRIBUTION OF CANADA RESEARCH CHAIRS AND CFI INVESTMENTS

Canada Research Chairs Distribution

The Canada Research Chairs Program provides major investments in research and scholarship at Lakehead University. Lakehead is committed to a strategy of recruiting world-class Canada Research Chairs external to the University as well as retain the best and brightest researchers that are currently at the University. Chairs will be allocated to areas of strategic research importance to the University and in support of high quality graduate programs. Canada Research Chairs will be used to strengthen and/or to build specific priority research areas within the University. Canada Research Chairs will be allocated in a strategic manner across faculties; faculties and research centres will be asked to respond to open calls for proposals that fit the research priority areas identified within the University's Strategic Research Plan.

Strategic Priority Area	CRC Title	Tier 1 or 2
<i>Current:</i>		
Advanced Systems and Technology	<ul style="list-style-type: none"> ▪ Physics of Molecular Imaging 	NSERC T2
Cultures, Societies, and Social Justice	<ul style="list-style-type: none"> ▪ Environmental Education ▪ Arts Integrated Studies 	SSHRC T2 SSHRC T2
The Environment and Natural Resources/Northern Studies	<ul style="list-style-type: none"> ▪ Materials and Environmental Chemistry ▪ Bioenergy and Biorefining Processes 	NSERC T2 NSERC T1
First Nations, Métis and Inuit (Aboriginal) Research/Northern Studies	<ul style="list-style-type: none"> ▪ Indigenous Knowledge and Research 	SSHRC T2
<i>Planned Nominations 2014:</i>		
Cultures, Societies, and Social Justice	<ul style="list-style-type: none"> • Human Origins 	SSHRC T2
The Environment and Natural Resources	<ul style="list-style-type: none"> • Freshwater Ecology and Fisheries • Green Chemicals and Processes 	NSERC T2 NSERC T2
First Nations, Métis and Inuit (Aboriginal) Research/Northern Studies	<ul style="list-style-type: none"> • Indigenous Mental Health and Addictions 	CIHR T2
Health Research Across the Life Span/Northern Studies	<ul style="list-style-type: none"> • Food Systems Studies • Driving Behaviour Safety 	SSHRC T2 CIHR T2

CANADA FOUNDATION FOR INNOVATION PROGRAM

The Priority Areas of Research outlined in this Strategic Research Plan will also be used to help guide decisions on submission of CFI applications to the John Evans Leaders Fund (JELF) and other national CFI competitions. CRCs who require infrastructure support will be given priority when allocating the CFI JELF; CFI/CRC JELF applications will be submitted when the CRC nomination is submitted.

ASSESSING SUCCESS IN MEETING STRATEGIC RESEARCH PLAN OBJECTIVES

In order to assess if our Strategic Research Plan objectives have been met, research success will be evaluated based on nationally acknowledged common criteria (i.e., increase in external research funding; increase in peer-reviewed publications; increase in number of research partnerships; increase in commercialization activities; increase in scholarly prizes; and increase in number of graduate programs, graduate students and postdoctoral fellows, etc.). At the same time we will attempt to establish additional indicators that respect discipline specificity and varying types of scholarly output.

PLANNING AND APPROVAL PROCESS

Lakehead University's Strategic Plan strongly connects teaching, research, community engagement and economic development. Teaching and research are seen as inextricably linked and driven by a common focus on learning and creation of new knowledge. As a result, in 2012 the Vice-President (Research, Economic Development and Innovation) and the Provost and Vice-President (Academic) agreed to integrate the academic planning process and research planning process. The result was the development of the Lakehead University Academic Plan which encompassed the University's Strategic Research Plan. A joint strategic academic/research planning committee was formed with representation from the Senate Research Committee and Senate Academic Committee. Plans for development of graduate programming were made with consideration of Lakehead's research strengths and research priorities. The University community was consulted widely and the advice and views of faculty, students, affiliated institutions and partners were solicited broadly, and incorporated wherever possible. The Academic/Research Plan was approved by Lakehead's Senate in March 2012 and can be accessed on the following website: <http://vpacademic.lakeheadu.ca/uploads/Academic%20Plan/Academic-Plan-2012-2017-Public.pdf>.