



# President's Report to Ogimaawin Indigenous Education Council





## Office of the President



### ***Times Higher Education* ranks Lakehead University among world's top universities**

For the second year in a row, Lakehead University has been included in the top half of the Times Higher Education's list of top universities from around the world.

The 2021 Times Higher Education World University Rankings has Lakehead University in the 601-800 category out of more than 1,500 universities from 93 countries.

This is the second year that Lakehead University has participated in the rankings and, once again, Lakehead was the only primarily undergraduate university from Ontario to have participated. The University ranked in the same bracket as a number of larger Canadian universities, and ranked above the worldwide median in three of the five categories: Research, Citations, and International Outlook.

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## Lakehead Researchers Continue to Combat COVID-19

Over the summer, Lakehead University researchers secured approximately \$590,000 to support COVID-19 related projects. Funding was awarded from such agencies as the Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council, MITACS, and the Ontario Centres of Excellence to support a wide-range of disciplinary-spanning projects. In one such project, Dr. Kathryn Sinden from our School of Kinesiology is investigating mental health resources that are available to support first responders during COVID-19. Other projects explore solutions for expanding hospitals' capacities during the COVID-19 pandemic, the application of artificial intelligence to assess infrastructure safety, the use of Google Classroom to facilitate remote learning in K-12, and the development of reusable N95 masks.



### Graduate receives the Robert Poulin Award for her outstanding citizenship

**Laura Deschamps** is the recipient of this year's Robert Poulin Award, presented to a full-time Lakehead University student for outstanding citizenship. Laura made many contributions during her time at Lakehead – to the university and to Thunder Bay. She proposed the creation of a peer-mentoring program in Kinesiology after volunteering as a teacher's assistant during her fourth year at Lakehead University. She felt having a program where students could get advice from peers who have gone through the same experiences as them would be incredibly helpful.

[\*Click here for full story...\*](#)



## Orientation 2020

Orientation is Lakehead's introduction and official welcome of our students to our communities of Thunder Bay and Orillia. A **special web page was developed**, and continues to be a source of information and resources, to help ensure our students' successful academic, social, and personal transition to the university experience.

Over the past week we have welcomed over 300 students to our Orillia and Thunder Bay residences. We have had the pleasure of meeting some of them and their families, in person, as they toured our beautiful campuses and made themselves familiar with the many things we have put in place for the new academic year.



One of the events included the opportunity I had to meet with several of our students and their parents along the shores of Lake Tamblyn. Accompanied by staff from Residence Services, the Registrar's Office, and other student-related service units, these sessions offered students and their family members the chance to ask questions about what life will be like at Lakehead from those who know best.

Another notable event that wrapped up Orientation 2020 was our virtual Commencement Procession and President's Welcome. During this occasion, which took place entirely via Zoom, we were able to continue this annual tradition with students around the world.



## Academic Excellence

### Dr. Chris Mushquash named a 2020 Champion of Mental Health

The Canadian Alliance of Mental Illness and Mental Health (CAMIMH) named Dr. Christopher Mushquash a Champion of Mental Health for the Innovation – Researcher or Clinician category.

Dr. Mushquash is a Canada Research Chair in Indigenous Mental Health and Addiction, an Associate Professor in the Department of Psychology at Lakehead University and the Division of Human Sciences at the Northern Ontario School of Medicine, and the Director of the Centre for Rural and Northern Health Research at Lakehead University. He is a registered clinical psychologist providing assessment, intervention and consultation services for First Nations children, adolescents and adults at Dilico Anishinabek Family Care.



Dr. Mushquash is Ojibway and a member of Pays Plat First Nation. He is a generous volunteer, frequently meeting with First Nations communities, organizations and students to discuss mental health and addiction. Through his work, he champions culturally and contextually appropriate mental health and addiction services for First Nations peoples, and for individuals living in rural and northern communities.

[Click to view CAMIMH's video about Dr. Mushquash and his award...](#)

### New NSERC Discovery and Discovery Development Grants (DDG)

The Discovery Grants Program supports ongoing programs of research with long-term goals rather than a single short-term project or collection of projects. These grants recognize the creativity and innovation that are at the heart of all research advances.

The DDG program provides resources to researchers from small universities whose DG applications were deemed to be of appropriate quality to merit research support, but were not funded in the DG Competition.

- 11 Discovery Grants, awarded for five years worth a total of \$1,875,000.
- 5 Discovery Development Grants awarded for two years with a total of \$150,000.

The above represents a total of \$2,025,000 in new NSERC funding. This is a 21.4% increase in NSERC funding this year, compared to last year.



## Lakehead receives \$1.2 million 500 MHz Bruker Avance NEO Liquid & Solid-State NMR Spectrometer

Lakehead University has taken delivery of a new 500 MHz Bruker Avance NEO Liquid & Solid-State NMR Spectrometer. The purchase of this Spectrometer was made possible through the largest ever CFI-JELF award to two Lakehead University principal investigators (Drs Pedram Fatehi and Stephen Kinrade). The spectrometer will be installed in CB 0012C in August/September 2020. NMR spectroscopy is used to study the physical, chemical, and biological properties of matter. Chemists use it to study the structure of molecules, molecular interactions, kinetics or molecular dynamics, and the composition of biological mixture, synthesized solution, or composite. The advantages of this new NMR Spectrometer over the current 17-year-old 500 MHz Varian liquid-based spectrometer is the ability for non-destructive analysis of the solid and liquid samples thus facilitating quantitative determination of concentration of molecules even in complex mixtures.

## \$50,000 grant from the Canada Research Chairs Equity, Diversity and Inclusion program

The Canada Research Chairs (CRC) Secretariat has awarded Lakehead University a one-time grant of \$50,000 to expand equity, diversity and inclusion (EDI) training opportunities for senior leadership, faculty researchers and staff who are integral in supporting and implementing the University's implementation of the CRC EDI Action Plan and the University's EDI Action Plan. The program will be jointly developed and delivered by Lakehead University's Office of Research Services and Office of Human Rights and Equity. The grant will provide our faculty and students with access to training offered by the Canadian Centre for Diversity and Inclusion and an EDI workshop series for researchers and graduate students. Researchers who participate in the program will be eligible to receive a Lakehead University Certificate in Inclusive Research Leadership.

## Dr. Sabah Mohammed named an Outstanding Associate Editor with IEEE Access

Congratulations to Lakehead University's **Dr. Sabah Mohammed**, a Computer Science professor who was recently recognized by the Institute of Electrical and Electronics Engineers along with other outstanding associate editors for their contributions to Access, the organization's flagship research journal. "These associate editors have directly contributed to the tremendous growth of IEEE Access with their exceptional efforts, and assisted the journal in upholding high publication standards. Thank you all again for your hard work and dedication," the announcement said.

For a complete list of Outstanding Associate Editors of 2019, please visit <http://bit.ly/3cMcZA9>.





## Lakehead earns bronze at CCAE Prix d'Excellence Awards

At this year's Canadian Council for the Advancement of Education Prix d'Excellence Awards, Lakehead University took home the Bronze for Best Student/Young Alumni initiative. This year's win marks the second alumni award in three years, and third straight year of award recognition for Lakehead. The award this year recognized the building of the Lakehead University Student Alumni Association at Lakehead Orillia. This dedicated group of students, under the guidance and leadership of External Relations Associate Jacquie Kent, has become an integral part of the campus community; often being called upon to support and participate in University-wide events, in addition to their student outreach activities.

[\*Click here for full story....\*](#)

## Team of Canadian and Italian researchers breaking new ground in materials science

In May, a team of researchers from Canada and Italy published a paper in Nature Materials journal that could usher in a revolutionary development in materials science, leading to big changes in the way companies create modern electronics.

The goal was to develop two-dimensional materials, which are a single atomic layer thick, with added functionality to extend the revolutionary developments in materials science that started with the discovery of graphene in 2004.

In total, 19 authors worked on this paper from INRS, McGill, Lakehead, and Consiglio Nazionale delle Ricerche, the national research council in Italy.

"This work represents an exciting development in the realization of functional two-dimensional materials beyond graphene," said Dr. Mark Gallagher, a Physics professor at Lakehead University. "I found it particularly rewarding to participate in this collaboration, which allowed us to combine our expertise in organic chemistry, condensed matter physics, and materials science to achieve our goals."

[\*Click here for full story...\*](#)



## NOSM and Lakehead receives \$330k from Ontario Human Capital Research and Innovation Fund

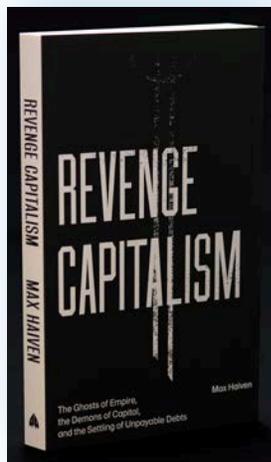
Researchers from the Northern Ontario School of Medicine (NOSM) and Lakehead University are receiving more than \$330,000 from the Ontario Human Capital Research and Innovation Fund (OHCRI) for projects that will benefit health-care workers and immigrants.

Dr. Erin Cameron, Dr. Diana Uranijik, Dr. Brianne Wood and John Hogenbirk have received \$250,000 from the OHCRI. Their study, Working models for human capital planning in Northern Ontario: a model for the primary healthcare workforce, will focus on human capital planning in Northern Ontario's primary care sector.

On another project, Dr. Kathy Sanderson and her team are receiving \$83,093 for research that examines how community and organizational welcoming affects the retention and recruitment of new immigrants.

[Click here for full story...](#)

## Dr. Max Haiven publishes new book on *Revenge Capitalism*



We typically think of economic systems as dispassionate machines. But in Dr. Max Haiven's new book, *Revenge Capitalism: The Ghosts of Empire, the Demons of Capital, and the Settling of Unpayable Debts*, Lakehead's Canada Research Chair in Culture, Media and Social Justice asks us to recognize the vindictive dimensions to the global capitalist economy.

Arguing that an economy can be vengeful even if no one intends it to be, he traces its structural and economic violence to its roots in colonialism, slavery and the immiseration of workers.

With eclectic chapters on topics ranging from the ongoing prescription opioids epidemic to Shakespeare's *Merchant of Venice*, from the scourge of aquatic dead zones to the reality TV series *Revenge Body* with Khloé Kardashian, this is a book that makes an urgent call for the radical imagination.

[More information can be found, and books can be purchased, via the publisher, Pluto Press.](#)



## BEd Grad Awarded Ontario Secondary School Teachers' Federation's Faculty of Education Award

Congratulations to **Rupinder Grewal (graduate of the BEd program, 2020)**, who has received the Ontario Secondary School Teachers' Federation (OSSTF) Faculty of Education Award, valued at \$1,000. The award, announced in May, is granted to a graduating Intermediate/Senior Teacher Candidate who is seeking employment with a public secondary board and who exemplifies values of importance to the OSSTF, including being an advocate of unionism, engaging in social activism to promote the professional nature of teaching, and showing leadership among Teacher Candidates.



Rupinder's dedication to activism and the teaching profession is evidenced by her leadership and support shown in various capacities, such as school breakfast programs, teachers' unions, the Climate Strike Rally in Thunder Bay, and the Ontario Teacher Candidates' Council.

[Click here for full story...](#)

## Lakehead professors awarded \$500,000 for important research

Two Lakehead University professors have been awarded \$250,000 each from the federal New Frontiers in Research Fund – Exploration to pursue important work that will benefit Canada and beyond.



**Dr. Zubair Fadlullah**, associate professor in Computer Science and Research Chair at the Thunder Bay Regional Health Research Institute, is receiving \$250,000 over two years to investigate the use of drones to address the lack of reliable internet access and health-care connectivity in rural areas in Northern Ontario. The aim of this research is to address both the urban-rural digital and health-care gaps in an interdisciplinary manner.

**Dr. Maryam Ebrahimi**, assistant professor in Chemistry and Tier 2 Canada Research Chair in Low-Dimensional Nanomaterials, is receiving \$250,000 over two years to address the enduring mystery of life's origin in the cosmos. In collaboration with her co-applicants at the Technical University of Munich, Dr. Ebrahimi and her team will study the peptide bonds formation from non-amino acid reactants under ultra-high vacuum (UHV) conditions, which resembles outer space.



[Click here for full story...](#)



## Researcher developing resources to support firefighter mental health

The Canadian Institutes of Health Research has awarded Lakehead University's **Dr. Kathryn Sinden** with a \$49,968 Knowledge Synthesis COVID-19 rapid response grant to spend six months developing resources to support the mental health of firefighters working during COVID-19.

Due to the important work that they perform, firefighters are often "first-on-scene" and have a higher chance of being exposed to transferable diseases including COVID-19, said Dr. Sinden, an Assistant Professor in Kinesiology.

[\*Click here for full story...\*](#)

## Lakehead University research team receives funding to explore the Midcontinent Rift

A Lakehead University researcher is receiving \$300,000 from the Natural Sciences and Engineering Research Council of Canada and \$150,000 from Clean Air Metals Inc. (TSXV:AIR) to investigate the mineralized intrusions of the Thunder Bay North igneous complex, part of the 1.1 billion-year-old Midcontinent Rift.

Dr. Pete Hollings, a Geology professor and the department's chair, will examine a portion of the nearly 3,000 km rift in the earth's surface that nearly split apart North America to aid Clean Air Metals in its exploration efforts at the Escape Lake and Thunder Bay North deposits.

This project will compare the mineralized intrusions of the Thunder Bay North igneous complex with barren and weakly mineralized intrusions. Three Master of Science students, three honours Bachelor of Science students, and one post-doctoral fellow will complete an integrated research program over three years, working closely with the geological team at Clean Air Metals and Dr. Derek Wilton from Memorial University on three key objectives.

[\*Click here for full story...\*](#)



## Lakehead professor's research could prevent burnout in health-care workers fighting COVID-19

A Lakehead University professor's research could help prevent burnout in more than a million health-care workers around the world as they assist patients who have become ill with COVID-19.

"Workforce shortage is the number one problem in health care globally," said **Dr. Salimur Choudhury**, an Assistant Professor in Computer Science at Lakehead University whose graduate student Mahzabeen Emu was recently awarded a \$15,000 Mitacs research internship for the next four months.

Dr. Choudhury's research with the [MeshAI.io](#) platform proposes an automated staff scheduler in the health-care industry that ensures stress-free task delegation and smarter staff scheduling decisions in a very short time.

Mesh Scheduling Inc. is a Kingston-based Canadian corporation that is the leader of a novel category of socially intelligent staff scheduling.

[Click here for full story...](#)





## Social Responsibility

### 2020 Lloyd Dennis Award recipient connects people, food, and learning on campus

**Jacob Kearey-Moreland** was contributing to campus life long before he was a Lakehead University student. As this year's recipient of the Lloyd Dennis Award for outstanding citizenship, he's has been a driving force behind local community gardening initiatives for over a decade – from Toronto during his undergraduate degree, through community advocacy in Orillia, and now as a graduate student at Lakehead. A grassroots champion for social and ecological justice, he's helping secure people's right to collectively produce and access food, while also preserving public, multi-generational spaces to gather, learn, exercise, and interact.

[Click here for full story...](#)



## Entrepreneurship and Innovation

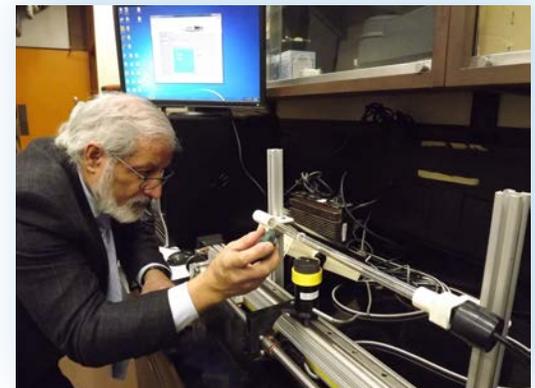
### Testing shines a light on effectiveness of UV lamps

A study being undertaken by Lakehead University to analyze the performance of ultraviolet lamps used to disinfect wastewater before being released into Lake Superior is moving to the next phase of testing. The aim is not just to determine which lamps perform better, but how to improve the process and optimize costs.

“The City of Thunder Bay is looking to gain a better understanding of the aging process of the ultraviolet lamps,” explains Lindsay Menard, process engineer at the City's Water Pollution Control Plant. “The intended goal of this project is to optimize the UV system and decrease operating costs.”

The study is a collaboration with **Dr. Siamak Elyasi**, an associate professor in **Chemical Engineering**. Elyasi's broad interest is drinking water and wastewater treatment.

[Click here to read full story ...](#)





## Local and Global Partnerships

### New HBA English transfer program from Confederation College

In May, Lakehead University's Department of English announced a new transfer program in cooperation with Confederation College. Students who now complete Confederation College's Film Production Diploma and have an overall average of 70% or higher can be considered for admission to Lakehead's HBA English program with the potential to complete their HBA English in two years.

### Project guides climate change communication strategies

That climate change is one of the greatest challenges facing humanity is not news. This awareness, however, does not always translate into action. To move people to action, governments and organizations need to understand how best to communicate climate change information.

Earlier this year, **Dr. Lindsay Galway**, Associate Professor in the Faculty of Health and Behavioural Science at Lakehead University and her team completed a project that sought to understand how citizens in Thunder Bay, Ont., and Prince George, BC, can become better engaged with climate change. Northern communities are particularly vulnerable to the effects of climate change. Although research has been conducted in the arctic, until now, little was known about public responses to climate change in the provincial norths.

The two-year project, funded the Social Sciences and Humanities Council of Canada, involved three components: representative postal surveys in Thunder Bay and Prince George; interviews with "climate champions" in each community who are engaged in climate change education and action; and lastly, the development of climate change communication strategies based on the gathered data.

[\*Click here for full story...\*](#)





## Charting a Course to Treat Issues Stemming From Childhood Trauma



*(left to right) Dr. Chris Mushquash, Lakehead University professor and a registered clinical psychologist, is overseeing research with Dilico Anishinabek Family Care. photo credit: Thunder Bay Regional Health Sciences Centre; Elaine Toombs is a PhD student in Clinical Psychology. submitted photo; Jessie Lund is a PhD student in Clinical Psychology. submitted photo.*

A partnership between Lakehead University and a First Nations organization that is examining the links between childhood trauma and adult physical and mental health issues may lead to wellness programs that could improve the lives of clients from all walks of life.

The collaboration with Dilico Anishinabek Family Care is looking at the areas of abuse, neglect, and the resulting personal challenges. The aim is to develop appropriate services for treatment.

The project involves the Adult Residential Treatment Centre, located on the Fort William First Nation. Two graduate students are working on this venture, which consists of interviews with staff and more than 100 clients, as well as data collection and analysis.

**[Click here for full story...](#)**



## **Bioenterprise Signs MOU with Lakehead University**

The promise of research and innovation commercialization in the agriculture and food sectors is front and centre thanks to a new Memorandum of Understanding signed between Lakehead University and Bioenterprise Corporation, showcasing the value of Canada's Food & Agri-Tech Engine (The Engine) in northern Ontario. Lakehead is taking a very active role in the development of technologies, which will have specific benefit to the agricultural sector and has seen success in providing useful tools to primary producers and the procession sector.

Whether it is the evaluation of formulations of fertilizer on new crops, small plot research studies for industry, biotechnological analytical services, or the evaluation of technologies which have positive environmental implications, Lakehead University is making a statement that it is strongly focused on providing value and service back to the agricultural sector.

*[Click here for full story...](#)*

## **Zehbe Research Group Steps Up Work into HPV-Associated Cancers and Treatments**

A team of scientists and students affiliated with Lakehead University, the Thunder Bay Regional Health Sciences Centre (TBRHSC) and the Northern Ontario School of Medicine has been conducting research related to certain types of cancers springing from a common infection. The efforts of members of the Zehbe Research Group has earned them a sterling reputation.

Zehbe is a Lakehead University Thunder Bay Regional Health Research Institute Research Chair and an associate professor with the Northern Ontario School of Medicine. The Zehbe Research Group focuses on cancers related to human papillomavirus (HPV), potentially leading to cancers such as head and neck, cervical and anal.

*[Click here for full story...](#)*

## **eHealth app for Northern maternal health care being developed**

A program for mobile devices may provide access to the health care and education that mothers-to-be in Northwestern Ontario feel they often don't receive. Supported by the Thunder Bay District Health Unit, an eHealth app is being adapted by researchers at Lakehead University to fit the needs of women in this region, particularly Indigenous and immigrant women. This will hopefully help close this gap in maternal care and education. Moeller, who is also associate director of the Centre for Rural and Northern Health Research, has a long-standing interest in equity in access to health and health care as well as Northern, Indigenous and women's health.

*[Click here for full story...](#)*