



Fall 2023

CROSH Crew News

The CROSH Members' Newsletter

Welcome to the fall CROSH Members' Newsletter! We hope you enjoy this issue; [let us know](#) what you think!

Registration for **CROSHCon 2024: Occupational Illness Awareness** is open! Register below and join us on January 19, 2024.

[Click here to register for CROSHCon 2024](#)

Research is **heating** up in Dr. Nicholas Ravanelli's Lab at Lakehead University



Research in action in Dr. Ravanelli's Lab. They now have the capacity to **simulate ambient temperatures up to 50°C** in the lab!

Dr. Nicholas Ravanelli is the CROSH Research Lead in Occupational Environment and Physiology. He's an Assistant Professor in the School of Kinesiology at [Lakehead University](https://www.lakeheadu.ca/).

Dr. Ravanelli's overarching research objectives are:

- to find efficient, safe, and effective evidence-based strategies to



- reduce the risk of heat-related illness in occupational settings;
- to identify what factors (e.g., disease, drugs) independently influence thermoregulatory function; and
- to advance our current understanding of fundamental thermoregulatory control mechanisms.



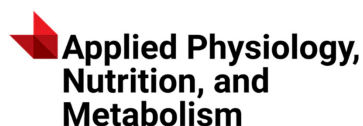
By understanding the underlying mechanisms for how people respond to exercise and heat, we can:

- better predict the risk of heat-related illness in heat-vulnerable populations;
- devise evidence-based cooling strategies to preserve health, quality of life, and performance within occupational or athletic settings; and
- potentially exploit structured heat exposure to improve individual heat tolerance.

Make these your next reads:



- [Agreement between the ventilated capsule and the KuduSmart® device for measuring sweating responses to passive heat stress and exercise](#)



- [24-h movement behaviour, thermal perception, thirst, and heat management strategies of children and adults during heat alerts: a pilot study](#)

Dr. Ravanelli and his team recently completed the CROSH-funded project, "Does diphenhydramine impair evaporative heat loss during physical activity in temperate conditions?"

He worked with local (Thunder Bay) physician Dr. Mario Nucci and Lakehead University graduate student (and CROSH Student Member) Douglas Newhouse. They've completed data collection and the initial findings are currently under peer-review. Stay tuned for the publication details!

They are following this study up with a larger investigation on other antihistamines and their potential impact on temperature regulation during heat stress.

Dr. Ravanelli and his team also finished data collection in Montreal from the summer when they piloted [HeatSuite](#), their research focused field data acquisition system. It's website (www.heatsuite.ca) is still being curated, but stay tuned for it to become available!

On top of all that, his team has also submitted 4 abstracts (from 2 MSc students and 1 undergrad student) to the American Physiology Summit 2024!

If you're interested in joining Dr Ravanelli's team as a graduate student, you can reach him at nravanell@lakeheadu.ca.

Meet the newest members of the CROSH Crew

Since our last newsletter, the following students have become CROSH members. Welcome to the CROSH Crew!

Raisul Islam Atik

Program: Masters in Engineering -
Engineering Science

Melanie Clouthier

Program: Masters in Human
Kinetics

Gomin Mathew George

Program: Masters in
Computational Science

Shaantanu Kulkarni

Program: Human Kinetics - Sport
Psychology

Apurv Kumar Bhatt

Program: Masters in Applied
Science

Tyanne Ewing-Bui

Program: Kinesiology

Md Ferdous Hasan

Program: Masters in
Computational Science

Zamdazitta M. Kumbakumba

Program: Masters in Engineering
Science

Congratulations Megan Wickie

MDEC 2023 Scholarship Winner Megan Wickie



Masters in Interdisciplinary Health Student
Laurentian University

Congratulations to student member Megan Wickie on earning the 2023 Mining Diesel Emissions Council (MDEC) Scholarship! Megan's research is on "Evaluating the Healthcare and Economic Burden of High Diesel Particulate Matter Occupational Exposure Limits in Northern Ontario's Underground Mining Industry."

"My research aims to fill a gap in our understanding of diesel exhaust exposures, and their link with cardiovascular diseases in the mining industry. It will inform the industry's strategies to mitigate the exposure and associated health risks, leading to a healthier and more productive workforce. By working directly within the industry or in a mining-related service/supply industry, I will be able to apply the findings of my research to real-world situations, driving change, and improvement in the health and safety standards within the industry."

- Megan Wickie

OHCOW Launches their Silica Control Tool

On November 3rd, Ontario Health Clinics for Ontario Workers (OHCOW) launched their Silica Control Tool. The goal of the

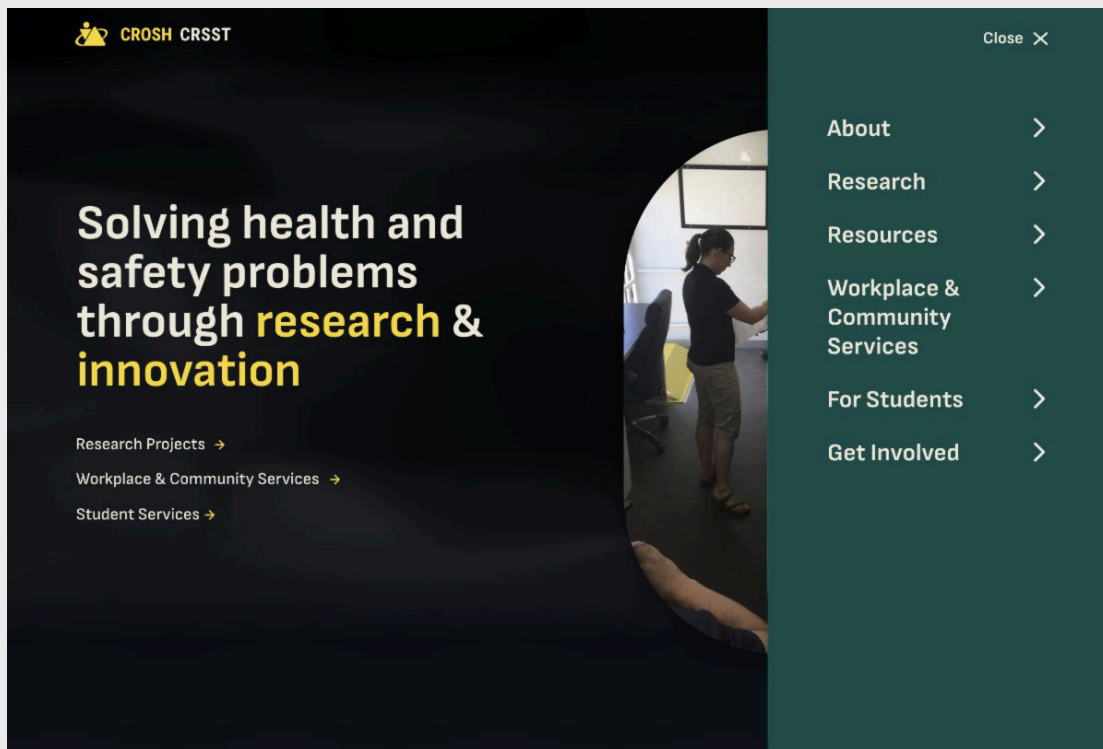


Tool is to reduce risk, protect workers, and improve efficiency for construction companies who work with silica by developing and providing an Exposure Control Plan. Workers and employers in the Ontario Construction Industry can get full access to the Tool.

If you know someone who could benefit from the Tool, you can [share this link](#) with them.

New Website Update

The new CROSH website is under development by local firm Design de Plume. We'll let you know when it launches!



Mock-up of the home page of the new website.

Resources for Members



There are a variety of resources for our members on our shared [Google Drive](#), from presentation templates to the lab handbook. And there's more we're adding! If you don't have access to the

CROSH Word Search

Play the [CROSH Word Search online](#) or print it out below.

Occupational Illness Word Search

R	W	R	E	K	R	O	W	H	A	Z	A	R	D
E	E	C	H	E	M	I	C	A	L	R	I	C	A
M	B	L	Y	I	E	R	U	S	O	P	X	E	E
P	I	E	S	L	A	C	I	G	O	L	O	I	B
L	N	L	E	E	M	P	L	O	Y	E	R	N	E
O	A	C	S	D	I	S	E	A	S	E	A	P	A
Y	R	E	I	N	T	E	R	A	C	T	I	O	N
E	R	L	A	I	C	O	S	O	H	C	Y	S	P
E	C	L	A	I	M	I	L	L	N	E	S	S	R
A	A	D	U	E	D	I	L	I	G	E	N	C	E
M	E	O	T	A	Y	H	C	R	A	R	E	I	H
E	N	D	H	C	I	M	O	N	O	G	R	E	H
N	O	I	T	A	L	S	I	G	E	L	E	A	W
W	O	R	K	P	L	A	C	E	A	E	I	H	L

ILLNESS
BIOLOGICAL
DISEASE
EMPLOYER
LEGISLATION
PSYCHOSOCIAL
WORKPLACE
HIERARCHY
ERGONOMIC
WEBINAR
DUE DILIGENCE
INTERACTION
EMPLOYEE
RESEARCH
CHEMICAL
EXPOSURE
WORKER
HAZARD
CLAIM

Play this puzzle online at : <https://thewordsearch.com/puzzle/6339864/>

Upcoming Events

- **OHCOW Occ|tober Webinar. Exposures & Disease – Making the Link.** November 17th 1:00 pm - 3:00 pm. [Click here to learn more.](#)
- **OHCOW Occ|tober Webinar. Airborne Hazard Management – Reducing Exposures in Mining.** November 24th 1:00 pm - 3:00 pm. [Click here to learn more.](#)
- **Lunch and Learn. Key Takeaways from ACE MSD Solutions Lab.** November 30th 12:00 pm - 1:00 pm in B-216A. Presented by

Melanie Cloutier.

- **Holiday Get-Together.** December 7th 11:00 am - 1:00 pm in B-216A. If you wish, you can bring a **nut-free** holiday treat to share - but very much not required.
- **General Membership Meeting:** January 10th at 3:00pm. In person in B-216A (CROSH Home Lab in Ben Avery) and also via Zoom at <https://us06web.zoom.us/j/85453307003?pwd=0AdZ7DbN3iVLYLTnBFPJVxdBXfBNtZ.1>
 - Meeting ID: 854 5330 7003
 - Passcode: 127186
- **CROSHCon 2024: Occupational Illness Awareness.** January 19, 2024. [Click here to register for free](#)
- **WSN's One-Day Symposium on Battery Electric Vehicle Safety in Mines.** February 15, 2024. [Click here to learn more](#).
- **CROSH Annual General Membership Meeting.** June 5th at 10:00am. Details to follow closer to the date.

Student Opportunities

Interested in a CROSH student internship? Learn more about our internship program and how you can show your interest by [clicking here](#). You can then submit your completed Notification of Interest form to croshtech@laurentian.ca

Laurentian University's Goodman School of Mines' Mineral Resource Industry Leadership Certificate is an excellent opportunity for students considering a career in the mining industry. [Click here to learn more!](#)

THIS LITTLE GEM.

For students and industry professionals




Mineral Resources Industry
LEADERSHIP CERTIFICATE

- Over \$4,000 worth of training and certifications
- Participate in 4 field trips to learn about different aspects of the mining industry.
- Attend 4 professional networking events with industry guests.
- One-on-one mentorship with an industry professional for the length of the program.
- Participate in mock interviews conducted by industry professionals.



 **Laurentian University**
Université **Laurentienne**

GOODMAN School of Mines
Ecole des mines

 | Canada's Mining University

APPLY NOW!
goodmanschoolofmines.laurentian.ca/mrilcertificate

Call for Participants

Student member Pranil GC is recruiting participants for a study comparing the effectiveness of virtual reality and video training methods for working at heights safety training. If you'd like to participate (and meet the criteria), you can scan the QR code below. You can also email Pranil for more information at pg_c@laurentian.ca.

CALL FOR PARTICIPANTS

ENGAGE IN VR RESEARCH STUDY

EVALUATING USER PERFORMANCE ON VR FOR WORKING AT HEIGHT

Participants criteria:

- Laurentian University
- Ages 18 and above
- Does not have a medical condition that precludes VR use

We're comparing the effectiveness of VR and video training methods for working at heights safety training. The study takes 1.5 hours



Scan to Register

Venue: **CHILL LAB (Fraser Building FA. 343)**

For more Information:
pg_c@laurentian.ca



Thank you for reading, and stay tuned for the next newsletter in Spring 2024!

Visit our Website



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