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Windsor Cancer Research Group



Windsor Cancer Research Group

Assembly of local researchers and healthcare professionals working together to create teams to strengthen our local cancer research programs and bridge collaborations with our neighbouring cancer centres.

Our Mission

To establish Windsor-Essex as an international hub of cancer research excellence.

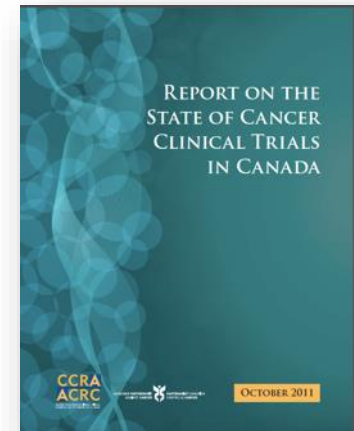
Our Vision

A united community bridging cutting edge research with world-class cancer care

Why not Why Windsor-Essex?



Windsor
Cancer
Research
Group



Significant appetite and opportunity for a collaborative health research in the area of cancer

Improved outcomes for patients treated in institutions with an active research programs

2009 Consulting Report

2011 CCRA Report

Vision and Mandate

A united community bridging cutting edge research with world class care

RESEARCH

Increase local & cross border translational research

INFRASTRUCTURE

Increase local research expertise and infrastructure

TRAINING

Elevate and support existing training programs
Create new training opportunities

COMMUNITY ENGAGEMENT

Enhance local education and engagement programs

Elevating Research Success



RESEARCH

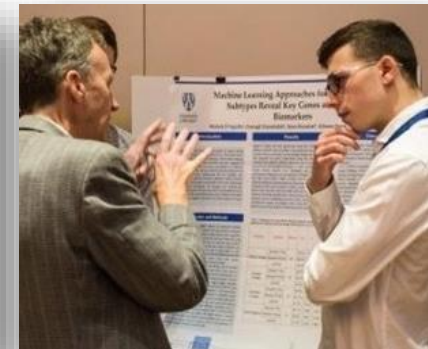
- Develop seed grant programs through ORIS
 - Seeds4Hope program
- Support advanced professional training
 - Biennial Cancer Research Conference
- Support development of research teams
 - Think Tanks
- Simplify the process for researchers
 - Research Toolkit



University
of Windsor



CROSS-BORDER
INSTITUTE



Expanding Infrastructure



INFRASTRUCTURE

NUCLEUS – Network of Core Labs Enabling Solutions

- Core facilities that brings together and expands medical research infrastructure to enable ideas and accelerate solutions that impact patients in Windsor Essex.



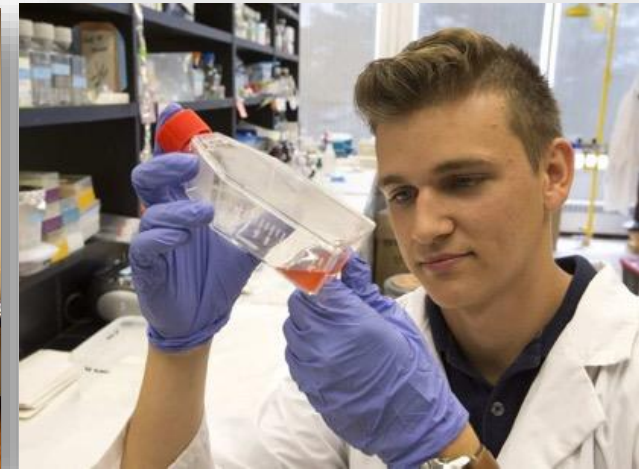
University
of Windsor
Faculty of Science



Unique Training Opportunities

TRAINING

- Graduate and Postdoctoral training
- SWORP students
- Medical students and residents
- Cancer Undergrad Research Education Students (CURES)
- RIOT team (graduate student outreach training)
- Graduate programs in health (MSc. Translational Health Research)



Connecting to our Community

COMMUNITY EDUCATION

Cancer SMART Community

- Public outreach events
- Researcher for a day
- Collaborators Corner
- Community newsletter
- Cancer SMART day



Demonstrated Success

...past 6 years



Organization

- **360** members
 - **23** core
 - **> 150** students
 - **35** organizations

Collaboration

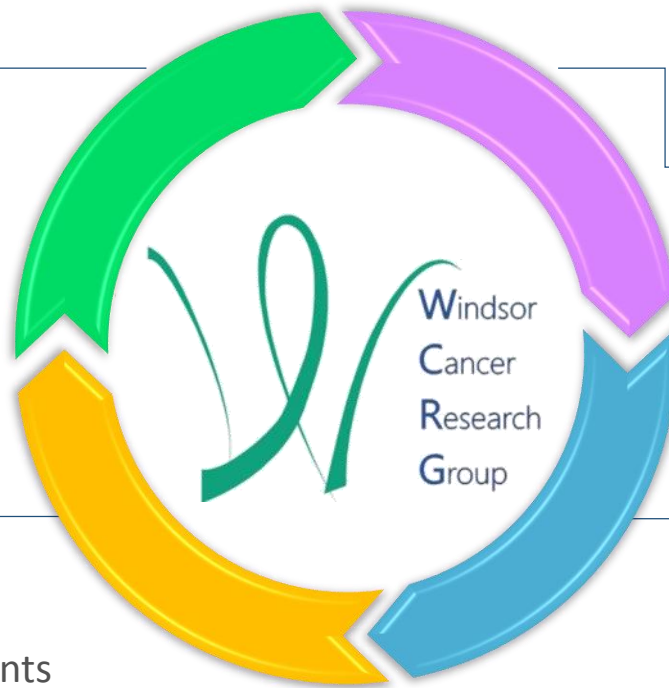
- **4** International conferences
- **13** Think Tanks
- **> 75** active collaborations
- **> 400** participants

Community Impact

- **> 65** community Events
- **> 25** educational Activities
- **> 5** new community programs
- Community newsletters

Research Impact

- **Triple** research grant submissions
- **Active** clinical trials
- **> \$4M** funding
- **> 60** publications



Some Latest Funded Projects

2018 CIHR Grant

A Matter of Timing: Circadian Clock Regulation of Intestinal Healing and Cancer

Dr. Phil Karpowicz

Biological Sciences - University of Windsor

Project Description

The circadian clock tells stem cells when to grow and when to divide during the day. When the clock is broken because of activities like shift work, we hypothesize this can lead to uncontrolled cell growth, a feature of cancer. To studying the dangers of a disrupted circadian clock, we will look at both mice and intestinal organoids, which are mini organs grown from stem cells in cell culture. Dr. Caroline Hamm from Windsor Regional Hospital will help obtain human tissues from cancer surgeries to study these processes in human cells. In addition to, the project will also investigate how medical treatment could be significantly improved by knowing how time of day affects healing.

- UWindsor Daily News

Keep up with us:



2018 Seeds4Hope Research Project

Establishing a Brain Tumour Organoid Screening Model to Optimize Therapeutic Options for Patients with Glioblastoma Multiforme

Dr. Swati Kulkarni

Oncology - Windsor Regional Hospital
Biological Sciences - University of Windsor

Project Description

To develop a brain tumour screening model that will advance our understanding of brain tumour biology, accelerate testing of new and promising drugs, and optimize therapeutic options for patients.

Multi-disciplinary Research Team

University of Windsor

- Dr. Dorota Lubanska - Biological Sciences
- Dr. Lisa Porter - Biological Sciences
- Dr. Simon Rondeau-Gagne - Chemistry & Biochemistry
- Dr. Keith Frank Stringer - Pathology, Cincinnati Sick Kids

Windsor Regional Hospital

- Dr. Abdalla Shamisa - Neurosurgery

Michigan State University

- Dr. Eran Andrechek - Computational Biology



Seeds4Hope

2019 - 2023 CIHR Grant

Targeting Cell Cycle Checkpoints in Glioma

Dr. Lisa Porter Dr. Ana deCarvalho

Project Description

Glioblastoma multiforme is an aggressive brain cancer of which there are currently no effective treatment options. Glioblastoma cells have very rapid mutation rates and the tumour itself is comprised of a mix of different cells with differing capabilities of driving tumour recurrence. Research has shown that only a small population of cells (called Brain Tumour Initiating Cells; BTICs) within the tumour are the most deadly, but these cells are also insensitive to available therapies. The Porter lab has found a protein, called Spy1 that is important in the expansion of the BTIC population. Spy1 is highly expressed in patients with glioblastoma, and early pre-clinical data suggests that targeting its mechanism may make an exciting therapy for these patients. This project will test the potential of targeting Spy1 for treatment of this aggressive form of cancer.

Multi-disciplinary Research Team

University of Windsor

- Dr. Abdulkadir Hussein
- Dr. John Trant
- Dr. Otis Vaccratis

Windsor Regional Hospital

- Dr. Swati Kulkarni
- Dr. Abdalla Shamisa

Lunenfeld-Tanenbaum Research Institute

- Dr. Daniel Schramek
- Michigan State University
- Dr. Eran Andrechek



CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

> \$4M in funding for local cancer research

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www.windsorcancerresearch.com



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*“Without research,
hope is just a word.”*

Dr. Michael Dufresne

WCRG Ambassador of Hope, former
cancer researcher & Seeds4Hope
Program Administrator

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