



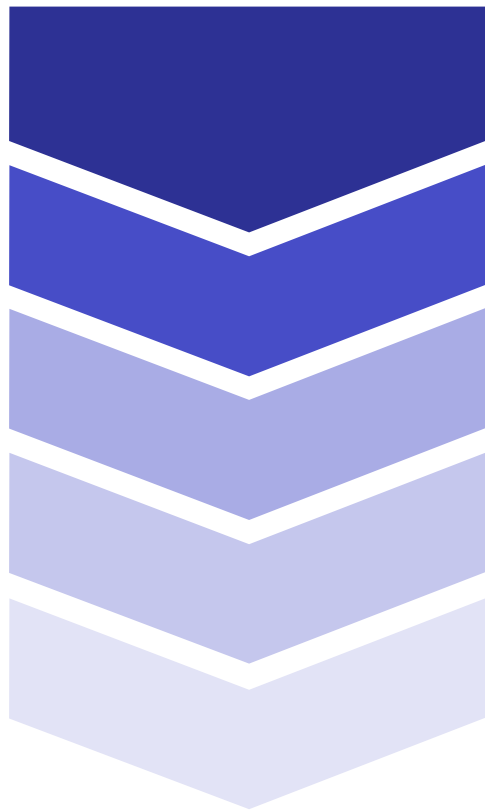
2016  
IMPACT REPORT

*Bridging Research & Hope*

Windsor Cancer Research Group



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# WCRG EXECUTIVE COMMITTEE

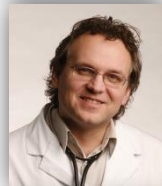
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Lisa Porter  
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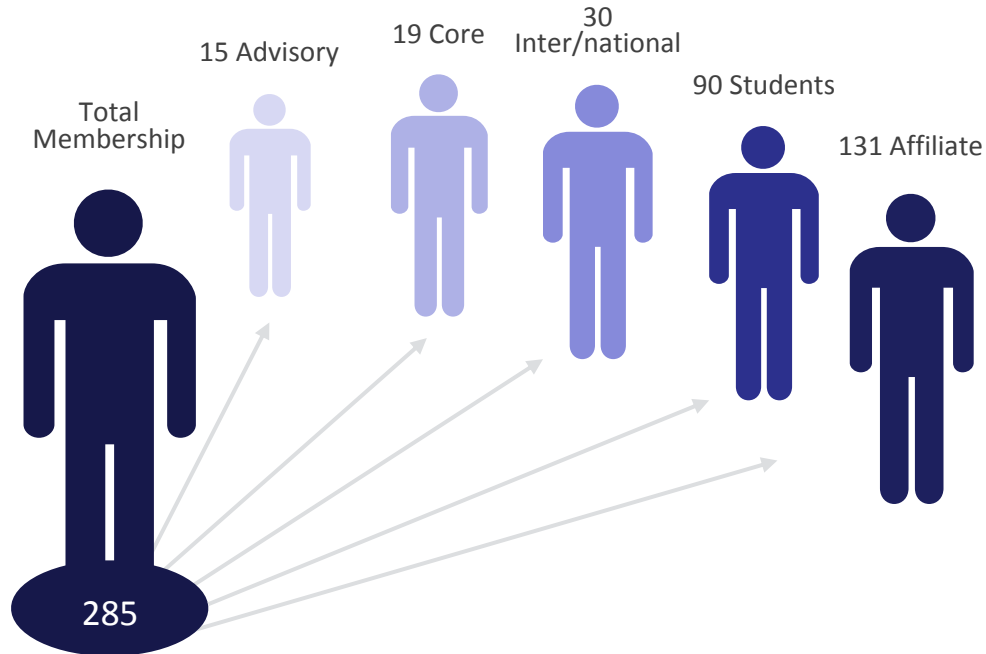
## A Message from the Executive Committee

As health research in Windsor-Essex continues to grow with exciting opportunities on the horizon, WCRG is reminded of its origins. In 2009, a consulting firm was hired by Windsor Regional Hospital to assess the research needs and capabilities in Windsor-Essex. With an impressive amount of data, their report clearly demonstrated a *“significant appetite and unexploited opportunity for a collaborative health research enterprise in Windsor, and the place to start would be in the area of cancer.”*

Today, with renewed investment in health care regionally, the vision of the WCRG is more relevant than ever. Now is the time to build a united community bridging cutting edge research with world-class cancer care. This WCRG report highlights our main successes and key initiatives of 2016 that continue to strengthen and enhance collaborations, enable researchers to advance bright ideas and work together to find new and innovative solutions in the areas of cancer detection, diagnosis and treatment. Looking forward, we are excited for the future in health care for the residents of Windsor-Essex.

# WCRG MEMBERS

In 2016, we've seen our membership grow to 285 members. Our membership includes individuals from several of our partner institutions with expertise in a variety of fields connected to cancer.



## Member Affiliations

- University of Windsor
- Windsor Regional Hospital
- Windsor Cancer Centre Foundation
- Hotel Dieu Grace Healthcare
- Schulich School of Medicine & Dentistry
- St. Clair College
- Henry Ford Health System
- Karmanos Cancer Institute
- Wayne State University

# 2016 – THE NUMBERS

WCRG members are involved in building a dynamic cancer research environment in the Windsor-Essex region. Their contributions are important to the continued growth of WCRG and significant to the success of cancer research in our community. A general overview of our 2016 progress is illustrated below.

Cancer Grants Awarded

18



Cancer research grants support projects centred on a wide variety of cancers including colon, hematological, breast, brain, liver, prostate and bladder. Our 2016 funded projects focus on basic sciences, translational, clinical, and quality of life research surrounding these types of cancers.

Collaborators on Grants

44



The number of collaborators involved in successfully funded grants almost doubled from 2015. Collaborators come from a variety of disciplines, organizations and institutions.

Trainees

133



Trainees are affiliated with the University of Windsor and Schulich School of Medicine and Dentistry and include Post-doctoral Fellows, Residents, Graduate and Undergraduate students.

Grant Funding

613K



Grants over \$25,000 were awarded from the following funding agencies:

- Canadian Institutes of Health Research
- Canadian Cancer Society Research Institute
- Windsor Cancer Centre Foundation, Seeds4Hope

\* *Metrics are the outcomes of the 19 Core Members.* - local researchers who are active in the cancer field (PI/Co-applicant) on cancer grants/clinical trials, publish in the cancer field, hold an academic appointment AND have contributed significantly to WCRG.

# CLINICAL TRIALS

04

Clinical trials are an important part of any successful cancer research network. WCRG is fortunate to work in partnership with the Clinical Trials Department at Windsor Regional Hospital to facilitate and improve connections, communications and collaborations for our members. The Clinical Trials Business Coordinator, Krista Naccarato, provides financial tracking and budgeting considerations for each trial. In 2016, she also oversaw the development of the Quality Assurance Process which has led to an improvement in data quality as noted at site audits. Krista also serves on the WCRG Executive Committee.



5

## Staff

The Clinical Trials Department at Windsor Regional Hospital is comprised of 5 staff members - 4 Study Coordinators who recruit patients and conduct local clinical trials, and 1 Business Coordinator who directs daily outputs and manages the administrative logistics, including study contracts, budgets, training requirements and study startup.



14

## Open & Recruiting Clinical Trials

Clinical trials at Windsor Regional Hospital Cancer Centre open and close throughout the year. Of the 14 trials in 2016, two were initiated by local clinical investigators.



89

## Recruited Participants

Our local cancer patient recruitment rate matches the national average of approximately 3%. WCRG is committed to support efforts that increase the number of clinical trials operating in Windsor-Essex and their accessibility to our local cancer patient population.



# PUBLICATIONS

05

In 2016, core members produced **34** cancer research peer-reviewed publications, proceedings and books.

Highlighted are a small sample of publications that include collaborators from computer science, biological sciences, chemistry and biochemistry, physics, diagnostic imaging, medical oncology, radiation oncology and social work.

[J Biomed Inform.](#) 2016 Apr;60:422-30. doi: 10.1016/j.jbi.2016.03.010. Epub 2016 Mar 15.

**A novel model used to detect differential splice junctions as biomarkers in prostate cancer from RNA-Seq data.**

[Rezaeian I](#)<sup>1</sup>, [Tavakoli A](#)<sup>2</sup>, [Cavallo-Medved D](#)<sup>3</sup>, [Porter LA](#)<sup>4</sup>, [Rueda L](#)<sup>5</sup>.

[BMC Cancer.](#) 2016 May 24;16:328. doi: 10.1186/s12885-016-2359-1.

**Activated thrombin-activatable fibrinolysis inhibitor (TAFIa) attenuates breast cancer cell metastatic behaviors through inhibition of plasminogen activation and extracellular proteolysis.**

[Bazzi ZA](#)<sup>1</sup>, [Lanoue D](#)<sup>1</sup>, [El-Youssef M](#)<sup>1</sup>, [Romagnuolo R](#)<sup>1</sup>, [Tubman J](#)<sup>2</sup>, [Cavallo-Medved D](#)<sup>2</sup>, [Porter LA](#)<sup>2</sup>, [Boffa MB](#)<sup>3</sup>.

[PLoS One.](#) 2016 Jul 28;11(7):e0140892. doi: 10.1371/journal.pone.0140892. eCollection 2016.

**Estimation of Tumor Interstitial Fluid Pressure (TIFF) Noninvasively.**

[Liu LJ](#)<sup>1</sup>, [Brown SL](#)<sup>1,2</sup>, [Ewing JR](#)<sup>2,3</sup>, [Ala BD](#)<sup>4</sup>, [Schneider KM](#)<sup>5</sup>, [Schlesinger M](#)<sup>1</sup>.

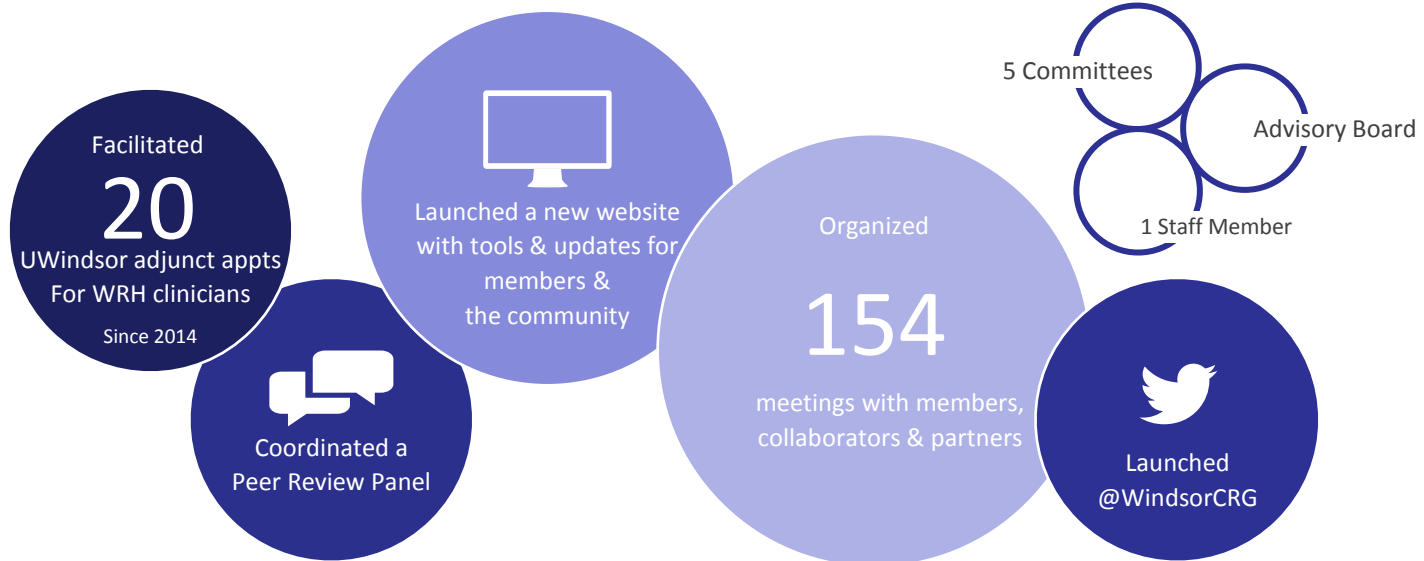
[BMJ Support Palliat Care.](#) 2016 Aug 23. pii: bmjspcare-2015-001035. doi: 10.1136/bmjspcare-2015-001035. [Epub ahead of print]

**Palliative chemotherapy among people living in poverty with metastasised colon cancer: facilitation by primary care and health insurance.**

[Gorey KM](#)<sup>1</sup>, [Bartfay E](#)<sup>2</sup>, [Kanieekal SM](#)<sup>3</sup>, [Wright FC](#)<sup>4</sup>, [Hamm C](#)<sup>3</sup>, [Luginaah IN](#)<sup>5</sup>, [Zou G](#)<sup>6</sup>, [Holowaty EJ](#)<sup>7</sup>, [Richter NL](#)<sup>1</sup>, [Balaqurusamy MK](#)<sup>1</sup>.

# GROWING CANCER RESEARCH

WCRG is focused on specific initiatives that support our members to build collaborative cancer research projects. In 2016, the WCRG hosted an International Cancer Research Conference, Think Tank series and several community events. We also facilitated numerous University of Windsor adjunct appointments for our clinicians, established a grant peer review panel and enhanced our online and social media profiles.



# BUILDING COLLABORATIVE RESEARCH

WCRG organizes activities and events that build collaborative cancer research networks. In 2016, we hosted an International Cancer Research Conference and launched a Think Tank Series. We facilitate the presentation and discussion of cancer research topics and identify collaborative teams that can bring projects forward for funding. Our newsletter, WCRG Matters, is circulated throughout the year to keep our members engaged and informed.



## Biennial Cancer Research Conference

- 160 Participants
- 25 Institutions Represented
- 56 Speakers and Posters



## Quarterly Cancer Research Think Tanks

- Over 80 Participants
- 8 Institutions Represented
- 11 Disciplinary Backgrounds



## Bi-monthly 'WCRG Matters' Member Newsletters

- Readership of +250
- Shares member successes
- Enhances communication

*"Congratulations to the WCRG for creating a first class scientific event and for having the vision to bring such a diverse and dynamic group together." ~ Conference Participant*

*"This was a well organized, collaborative opportunity with so many areas of expertise in one room. There were so many ideas brought forward that I would never have thought of and such great energy in the room. I'm looking forward to the next think tank!" ~ Think Tank Participant*

# PARTNERSHIPS

Collaborative research networks are created through successful partnerships. WCRG is fortunate to have the Windsor Cancer Centre Foundation and Caesars Windsor as strong proponents of cancer research activities. Their support is essential to the health of our community.



## Cancer Smart Community

*Windsor Cancer Centre Foundation (WCCF)*

WCCF funds the innovative Seeds4Hope program that elevates cancer research locally. In 2016, WCCF partnered with WCRG to establish an education program "Cancer SMART" that translates and connects cancer research within the Windsor-Essex community.



## Nucleus

*Caesars Windsor*

Thanks to the support of Caesars Windsor and UWindsor Faculty of Science, 'Nucleus' will provide a virtual inventory of all cancer research facilities and equipment in Windsor-Essex. This will facilitate collaboration within our research community and will reduce duplication and maximize use of valuable resources. Caesars supported the 'Nucleus Drug Development and Screening Platform' with the purchase of a critical piece of equipment.



## New Hospital System

*Windsor Regional Hospital*

As members of the Windsor-Essex community, we are excited by the recent announcement of provincial support for a new hospital system. The new hospital system will build and expand current research and training programs, attract, and retain leading professionals and increase funding potential for local health research. WCRG is proud of have partnered with WRH to support and share this message with the community and province.

# RESEARCHER SNAPDSHOT

09



**WCRG RESEARCHER SNAPDSHOT**  
**Dr. Luis Rueda,**  
 PhD, School of Computer Science,  
 University of Windsor

**What is your research focus?**  
 My research uses machine learning and bioinformatics approaches to study cancer biology. We design computer algorithms that deal with huge amounts of data generated by the latest biotechnological tools for DNA and RNA sequencing. These algorithms help us find relevant indicators (biomarkers) associated with progression of prostate cancer and the different breast cancer subtypes. Powerful computer systems combined

with intelligent algorithms for machine learning open opportunities for implementing novel therapies and devices.  
**What advice would you give to students who are interested in cancer research?**  
 Be focused and open-minded – this is key for cancer research, especially today when combining expertise from different disciplines is necessary. Also, be positive, self-motivated and creative; don't burn out working harder than needed. Spending time with family and friends and doing some physical or recreational activity are important too. My advice is to work smart rather than excessively hard.  
**What inspires you to do cancer research?**  
 I am very happy that I can contribute to society and enhance the chances of having a healthy life; at least by a tiny portion. I am also very excited about the challenges this particular type of research involves, in particular, processing huge amounts of data to find a tiny piece of a puzzle, integrating biology and computer science knowledge toward a common goal.  
**What do you do in your spare time?**  
 I enjoy spending time with my family, running, playing badminton, coaching, wine-making, brewing my own beer and my Argentinian style BBQs.  
 You can find out more about Dr. Rueda's work at <http://lrueda@uwo.ca>



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**WCRG RESEARCHER SNAPDSHOT**  
**Dr. Swati Kulkarni,**  
 B.Sc., M.B.B.S., F.R.C.P. (c), Medical  
 Oncology, Windsor Regional Hospital

**What is your research focus?**  
 My research focus is to identify important biomarkers that reduce the toxicity from current cancer treatments. Currently, I am working on a project to identify the cardiotoxicity in breast cancer patients. I am particularly interested in identifying the characteristics and outcomes of young breast cancer patients. My main focus has been

clinical research but through my membership with the WCRG, I am hoping the future will bring collaborations with basic scientists at the University of Windsor.  
**What do you do in your spare time?**  
 I enjoy spending time with my family and friends. My favourite activities are cooking and traveling to new places. When I do find time to myself, I like to do Yoga.  
**What advice would you give to students who are interested in cancer research?**  
 Think outside the box. Be persistent and do not give up. Balance your work and personal life, so that you can enjoy what you are doing.  
**What is your most notable accomplishment so far?**  
 Getting an American Society of Clinical Oncology Award for male breast cancer research.  
**What motivates you to do what you do?**  
 My biggest motivation is to try to help my patients and serve the community.



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**WCRG RESEARCHER SNAPDSHOT**  
**Dora Cavallo-Medved, Ph.D.**

**What is your research focus?**  
 My research is focused on the role of the tumor microenvironment, including the molecules and normal cells surrounding a tumour. We know that cancer cells can recruit and use normal cells during cancer progression. Exploring these cellular relationships will allow us to better understand how cancers grow and spread to other parts of the body.

**What do you do in your spare time?**  
 I very much enjoy cooking, entertaining, dancing, soccer and vacationing with my family and friends.  
**How did you come to be working in this field?**  
 As a graduate student studying enzymes involved in cardiovascular disease at the University of Windsor, I was introduced to a cancer biology lab at Wayne State University. I learned that many of the enzymes I was studying also play major roles in cancer. I was excited to transition into cancer research and after several years of being a cross-border cancer researcher, I was fortunate to return to the University of Windsor. Here at home I can continue my cancer research locally and teach the next generation of University of Windsor students.  
**What advice would you give to students who are interested in cancer research?**  
 In general, research is not easy and there will be many days in which you will be frustrated and disappointed. However, research allows for discovery, and this is exciting! Your research will take you on a fantastic life; you will encounter some wonderful people along the way and learn a lot about yourself. And through this journey, you will make your scientific contributions, none of which are too small, and all of which matter.



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**WCRG RESEARCHER SNAPDSHOT**  
**Sindu Kanjeekal, M.D.**

**What is your research focus?**  
 My research aligns with my clinical practice including hematological, gastrointestinal and genitourinary cancers. I have been the local lead investigator in a number of national and international trials over the years. I am a member of the Myeloma Canada Research Network. A couple of our projects include testing a novel compound against myeloma and establishing a national database to support Canadian research. In the field of GI cancers, we will soon be opening a trial to study new immunotherapy drugs in colorectal cancer, which could potentially transform the way we treat this disease. I also collaborate with a talented team from the Windsor Regional Hospital and University of Windsor on a number of projects. I am leading a bladder cancer study to establish a genomic signature that will identify patients at high risk of developing invasive bladder cancer. Our goal is to prevent people from developing this devastating disease.

**When do you get your best research ideas?**  
 I like to run, without music, and let my mind wander. I find it relaxing and freeing, and some how I find solutions to problems I struggle with during the day.  
**What is your favorite thing to do when you are not at work?**  
 Medicine demands a lot of my time and energy so in my free time I love to be with my children Noah and Madeline, my husband and close family and friends. I have learned the lesson that life is about relationships.  
**What motivates you to do what you do?**  
 I am motivated by my desire to ease the burden that cancer places on my patients and their families.



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**WCRG RESEARCHER SNAPDSHOT**  
**Dr. Laurie Freeman-Gibb,**  
 R.N., PhD, Faculty of Nursing  
 University of Windsor

**What is your research focus?**  
 My research focus is cancer survivorship. Survivorship is a pivotal part of the cancer journey for all cancer patients and it is vital that we give patients all the possible tools to help them adjust after treatment for cancer is complete. In particular I research fear of cancer recurrence, as many cancer patients will experience this common phenomenon at the end of active treatment. Cancer treatment changes a person forever and I am exploring potential ways to mitigate or reduce fear of cancer recurrence within the survivorship phase of care. I am part of a team working towards assisting patients in how to lower their fear of recurrence and improve their overall quality of life. I never want a patient to leave cancer care feeling so overwhelmed by the experience and fearful of the future that they cannot move forward with his or her new reality as a cancer survivor.

**What is your favorite thing to do when you are not at work?**  
 In my spare time I love doing two very different activities. First I am an avid motorcyclist. I drive a Can-Am Spyder RRS and you will see me buzzing around town on my bike. Being on my bike gives me a sense of freedom and being one with nature. Second is hot yoga. I find that yoga helps me clear my mind and relax. It is especially helpful if I am working on a tough project as it helps me to regain focus. During these meditative times in yoga many a research question or idea has popped into my mind.



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In April 2016, the Cancer Researcher Snapshot was launched. With the generous sponsorship of snapd Windsor, 5 cancer researchers were introduced to our community. They share information about their research, what motivates them to do cancer research and how they spend their free time. The goal of this initiative is to raise awareness about the cancer research being done in Windsor-Essex and stimulate new research collaborations. Thank you snapd Windsor for supporting this new community initiative.



# COMMUNITY OUTREACH AND EDUCATION

10

An important goal for WCRG is to make cancer research more accessible to the public. We host a community newsletter, facebook page, twitter, outreach events, educational workshops and public seminars. WCRG is becoming an important resource for cancer research in our community.



2

Community Newsletters circulated with a readership of over 500 people

15

Community events WCRG participated in

26

Times WCRG was featured in the news. A few of the top headlines:

- *New Canadians learn about science by smashing, squishing and stirring*
- *Research showing cancer patients' pain and anxiety led to local change*
- *Cancer research, says Windsor scientist, 'truly is hope'*
- *Experts invited to help plan for research, education at new hospital*

362

Facebook 'likes'

# STUDENT VOLUNTEERS

WCRG has **30** undergraduate student volunteers who are vital to our success. In 2016, volunteers played key roles in the following initiatives: Science Rendezvous, Research Showcase, Biennial International Cancer Research Conference, Think Tank Series, WRH Cancer Education Days, YMCA Cancer Workshop, Cancer Patient Parent Education Workshop, and Prostate Cancer Support Group Seminar.



**Public Health Advocates**

WCRG volunteers develop public education tools, answer questions at events and workshop and promote awareness of local cancer research projects and resources.



**Effective Communicators**

WCRG volunteers convey information about WCRG, cancer, research and treatment initiatives in Windsor-Essex to everyone in a clear and enthusiastic manner. They are approachable and target information to the needs of the audience.



**Professional**

WCRG volunteers have the opportunity to interact with researchers, peers and the public, which assists them in their own professional development.

# TESTIMONIALS

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“As a new member of the Windsor Cancer Research community, and a new professor who works at the interface of chemistry and biology, the Windsor Cancer Research Group is providing me with an exceptional and rare opportunity to build bridges with colleagues, future collaborators, and clinicians that I would never have the opportunity to meet and talk to otherwise. There is nothing else like this in Canada that I am aware of, and it makes starting my independent career here in Windsor the best possible decision I could have made. Simply put, the WCRG bridges discovery with implementation and means that my molecules will not just be intellectual curiosities, but can be further investigated and translated into potential therapies.”

## John Trant, PhD

*Chemistry and Biochemistry, University of Windsor*



“I owe the WCRG a huge thank you for an invaluable experience and the opportunity to work with local physicians and researchers. Being part of this group has been incredibly rewarding and has undoubtedly enhanced my pursuit for a career in medicine.”

## Youshaa El-Abed

*Undergraduate Student, Biological Sciences  
WCRG Lead Volunteer*



The WCRG is a leader in our community. What sets them apart is their strong dedication to cancer research combined with a desire and willingness to collaborate with anyone interested in moving forward. So many organizations work in silos, not WCRG. They have built a strong base within our community and beyond. As a member of this community, a business owner and a cancer survivor I am proud of what they have accomplished thus far and can't wait to see what they are able to do in the future.

## Jeff Casey

*Owner, snapd Windsor  
WCRG Advisory Member, Cancer Survivor*



“One of the great benefits of being part of the WCRG has been the opportunity for new relationships and collaboration with scientists at the University of Windsor. Through events like the Think Tank or sharing of research results at WCRG sponsored scientific meetings, there is now an environment to learn of each other's interests and skills and resources. This leads directly to exciting research ideas and collaborations that would have been otherwise unlikely.”

## Sindu Kanjeekal, MD

*Medical Oncologist, Windsor Regional Hospital*



# THE HEART OF RESEARCH

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When cancer researchers come together, we often talk about the motivation for our work. In addition to the passion that our members feel for their area of study, it is often the personal connections to cancer that drives us all. Ron Truant was a member of the WCRG Executive and a valued mentor and friend. His words of wisdom continue to inspire WCRG as we move forward.

*“My personal cancer journey has taught me the value of scientific research. I see now more than ever the need for collaboration and the creation of a research corridor that has no borders! WCRG needs to keep doing what it has been doing to build this, without letting up!”*



Ron Truant, CPA

WCRG Executive Committee  
June 7, 1950 - February 17, 2016

# THANK YOU TO OUR SUPPORTERS

Today, cancer patients live longer because of advancements stemming from research. WCRG is excited to build and strengthen our current local cancer research program to better serve the patients of the Lake Erie-St. Clair region. The devotion, energy and enthusiasm of our members, our volunteers and all those in the community that have supported us is key to our continued growth and our ability to make a difference in the fight against cancer.

*Thank you, we couldn't do it without you!*



## Personal Donors

Michael Dufresne in memory of Rosemary Dufresne

Maria Napigkit, RBC Making 150 Count

Federica Nazzani

Donors who wish to remain anonymous







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