

IMPACT REPORT

wey spark HEALTH INSTITUTE

2019-2020

WINDSOR REGIONAL HOSPITAL

University of Windsor

ST. CLAIR COLLEGE

HDGH ESTD 1888

Impact Report:

WE-SPARK Health Institute

Enhancing the health, well-being and care of people through transformative research and knowledge translation.

UNITING STRENGTHS

WE-SPARK Health Institute is a partnership between Hôtel-Dieu Grace Healthcare, St. Clair College, Windsor Regional Hospital and the University of Windsor that brings together health research strengths, expertise, and infrastructure from across the Windsor Essex region. We are establishing research pipelines to address pressing health issues, advancing discovery, innovation and technology, training and promoting excellence among our health professionals, and engaging our community.

WE-SPARK acknowledges that we are on land and surrounded by water, originally inhabited by Indigenous Peoples who have travelled this area for time immemorial. This territory is within the lands honoured by the Wampum Treaties; agreements between the Anishinaabe, Haudenosaunee, Lenni Lenape and allied Nations to peacefully share and care for the resources around the Great Lakes. Specifically, we acknowledge the presence of the Three Fires Confederacy (Ojibwe, Odawa, Potawatomi and Huron/Wendat) Peoples. Health research and care can benefit from gaining a deep appreciation of the past and present healing practises among the Indigenous Peoples. We recognize the urgency for health research, care and training to meet the needs of the Indigenous communities in Canada.

We are committed to providing equity, diversity, inclusivity, and support – all components of an environment that enhances excellence, innovation and creativity. We aim to develop and support policies and practices that strengthen the research community, as well as the quality, social relevance and impacts of our research.

Uniting strengths, igniting discovery, living better.

WE-SPARK LAUNCH TIMELINE

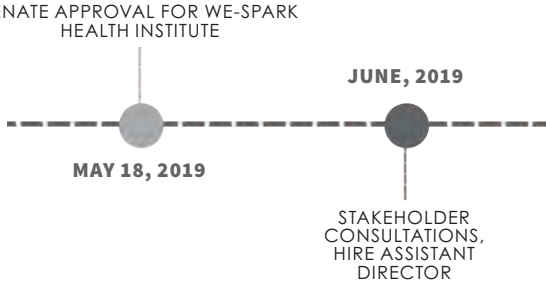

TABLE OF CONTENTS

A THRIVING AND ENGAGED RESEARCH COMMUNITY, DRIVING ADVANCEMENTS IN HEALTH.

MISSION, VISION, STRATEGIC PRIORITIES	04
WE-SPARK SNAPSHOT	06
MESSAGE FROM THE BOARD OF TRUSTEES	08
MESSAGE FROM THE EXECUTIVE DIRECTOR AND THE WE-SPARK TEAM	10
OUR RESEARCH COMMUNITY	12
WE-SPARK GRANTS PROGRAM	14
RESPONDING TO THE NEEDS OF OUR COMMUNITY	16
TRANSLATING RESEARCH TO INSPIRE AND DRIVE CHANGE	18
ENGAGING AND EMPOWERING OUR COMMUNITY	20
PARTNER PROFILES	22
AFFILIATED PROGRAMS	30
THE HEART OF RESEARCH	32
LOOKING FORWARD	34

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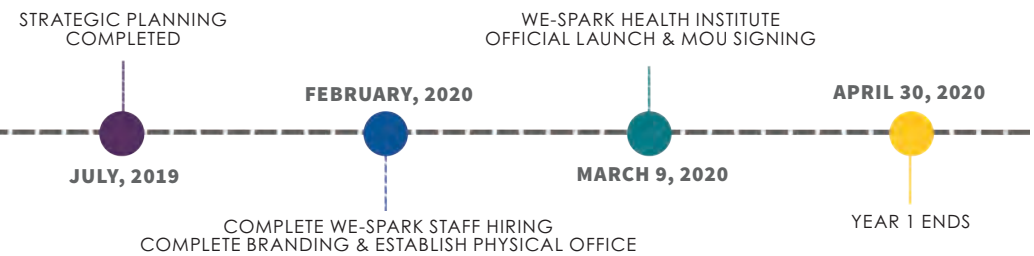
WESPARKHEALTH.COM



Our Mission

Enhance the health, well-being and care of people through transformative research and knowledge translation.

Our Vision

A thriving and engaged research community driving advancements in health.

Our Values

accountability

We are committed to upholding responsible research.

excellence

We are dedicated to achieving world-class outcomes in all that we do.

collaboration

We are a diverse and inclusive team committed to engaging the community.

sustainability

We are committed to working together to ensure our long-term success.

innovation

We foster a culture of inquiry, champion and drive change.



WE

Strategic Priorities

research excellence

Create a dynamic research environment that enables, supports and promotes excellence.

knowledge transfer

Translate and transfer research information to inspire and drive change.

building capacity

Secure the resources that WE-SPARK needs to achieve its mission.

community engagement

Enhance understanding and build trust with the community.

organizational effectiveness

Build an effective and efficient organization.



WE-SPARK SNAPSH

PARTICIPATED IN

22

OUTREACH EVENTS

650+

FOLLOWERS

FACEBOOK, TWITTER, INSTAGRAM, LINKDIN

146

MEMBERS

+

4 STAFF

6,245

$5,328,282

OPERATING

7

EDUCATIONAL EVENTS

18

KNOWLEDGE TRANSLATION TOOLS

OT

29
GRANTS AWARDED
($408,000)



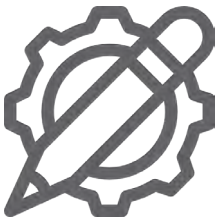
3
THINK TANKS



5,553*
$917,271
INFRASTRUCTURE



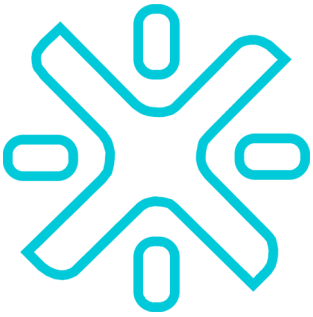
LAUNCHED WEBSITE
WITH OVER
2600
UNIQUE VISTS
IN THE FIRST 2 MONTHS



24
RESEARCH TOOLS CREATED

960+
NEWSLETTER ENGAGEMENTS





33
TIMES IN THE NEWS

*Funding reflects the grant activity of the 19 Core Principal Members



JANICE KAFFER

PRESIDENT & CEO, HÔTEL-DIEU GRACE HEALTHCARE

"Today, patients live longer because of advancements stemming from research. Partnerships are key to driving quality improvement and ensuring we are responsive to the needs of our patients. We are excited to build and strengthen our current research program by working in collaboration with the University of Windsor, St. Clair College and Windsor Regional Hospital to better serve the patients in our region."



PATTI FRANCE

PRESIDENT, ST. CLAIR COLLEGE

"The college is looking forward to very extensive participation in this valuable new endeavour. It is the most far-reaching and far-sighted collaboration we've had in the health field during our decades-long partnerships with the university, the hospitals, and a number of local clinics, agencies and medical practitioners. Our professors are looking forward to their expanded research role, and it opens up a whole new vista of knowledge and experience for our students."



ROBERT GORDON

PRESIDENT & VICE-CHANCELLOR, UNIVERSITY OF WINDSOR

"We are thrilled to be part of this innovative health initiative that will support our regional commitment to vibrant, healthy and resilient communities throughout Windsor-Essex. I truly believe that the training opportunities, research outcomes and health benefits of WE-SPARK will demonstrate the impact and need for partnerships throughout our region."



DAVID MUSYJ

PRESIDENT & CEO, WINDSOR REGIONAL HOSPITAL

"Research and Education are among the main drivers of the new Windsor-Essex Hospitals System. Through this unique partnership we have a chance to think big, build collaboration into the new system and position the region as a leader in medical research. This will have a huge impact on our patients and improve our ability to recruit and retain top physicians, professional healthcare staff and medical leaders."

A MESSAGE FROM THE BOARD OF TRUSTEES

We are thrilled to see how the Windsor-Essex community has embraced the new WE-SPARK Health Institute. From the beginning planning stages, to the official launch earlier this year, stakeholders have been involved every step of the way. Healthcare providers, researchers, students and staff at our four organizations continue to inspire, encourage and support the WE-SPARK vision to be a thriving and engaged research community. Hundreds have participated in WE-SPARK research projects and events, and the media have been generous with local and national coverage of these initiatives.

Shortly after the launch of WE-SPARK Health Institute, we were thrown into a world-wide pandemic. COVID-19 continues to have an impact on our communities. It is challenging us in new ways and making it more evident that we need to build on the individual strengths of our organizations and integrate expertise, infrastructure and capacity to build a vibrant, healthy and resilient community.

This is our chance to be bold, to work together to ensure that Windsor-Essex is at the forefront of discovery and care.

A MESSAGE FROM THE EXECUTIVE DIRECTOR

Welcome to our first WE-SPARK Health Institute Impact Report. It was an exciting day in March when the community celebrated the official launch of an innovative, one-of-a-kind partnership between Hôtel-Dieu Grace Healthcare, St. Clair College, University of Windsor and Windsor Regional Hospital. The vision and unwavering commitment of our Board of Trustees has fueled the progress in this report and will undoubtedly impact the health and well-being of our region for generations to come.

The SPARK that initiated this health institute began before my time in Windsor. It began as a grassroots effort of health researchers in our region working together, engaging funders and the local community; some of these individuals are still with us on this journey and others have selflessly given so much to moving our health research landscape forward, we are so thankful to each of you.

This first year brought together a talented team of individuals who put aside their roles within their own institutions and focused on building a strong foundation for health research that spanned the needs of our entire region. Together, WE-SPARK was born – we hired an amazing staff, established a comprehensive strategic plan and implemented an action plan to elevate health research excellence, to translate research to ensure maximal impact and to engage and empower our local community. WE-SPARK Health Institute is about uniting the unique strengths across Windsor-Essex and raising the bar for innovation, training and healthcare delivery that directly impacts the health of our community.

This report highlights the power of collaboration and what we can achieve when we work together – and this is just the beginning.



LISA PORTER, PHD.

PROFESSOR, BIOMEDICAL SCIENCES,
UNIVERSITY OF WINDSOR

OUR TEAM

EXECUTIVE COMMITTEE

Lisa Porter (Chair)
WE-SPARK Executive Director (non-voting)

Karen Metcalfe
WE-SPARK Assistant Director (non-voting)

Terra Cadeau
Hôtel-Dieu Grace Heathcare

Marla Jackson
Hôtel-Dieu Grace Healthcare

Peter Wawrow
St. Clair College

Heather Pratt
University of Windsor

Chad Sutherland
University of Windsor

Otis Vacratsis
University of Windsor (ad hoc member)

Caroline Hamm
Windsor Regional Hospital

Nicole Sbrocca
Windsor Regional Hospital

MEMBERS OF THE FOUNDING EXECUTIVE COMMITTEE:

Michelle Nevett
St. Clair College

Christopher Abeare
University of Windsor

Jody Ralph
University of Windsor

Helen Catauro
Windsor Regional Hospital

Dora Cavallo-Medved
University of Windsor

GOVERNANCE COMMITTEE:

Lisa Porter (Chair)
University of Windsor

Terra Cadeau
Hotel Dieu Grace Healthcare

Heather Pratt
University of Windsor

Nicole Sbrocca
Windsor Regional Hospital

Monica Tighe
St. Clair College

STAFF

Karen Metcalfe
WE-SPARK Assistant Director

Kyle Lago
Translational Research Associate

Cathy Mombourquette
Communications Coordinator

Marla Rivard
Administrative Assistant

OUR RESEARCH COMMUNITY

CORE MEMBERS: Researchers who have a formal affiliation with one of our four partner institutions.

146 MEMBERS

19	**Principal** funded by provincial or national health projects, or lead a clinical trial.
28	**Associate** actively engaged in research but do not currently hold provincially or nationally funded projects or are leading clinical trials.
20	**Affiliate Researcher** associated with health research or healthcare locally or beyond; including administrative support.
43	**Students** post-secondary students in any discipline with an interest in health research.
28	**Community Members** individuals or organizations interested in the health landscape in Windsor-Essex.
8	**WE-SPARK Ambassadors** organizations or individuals that provide a donation/support.

CORE PRINCIPAL MEMBERS

Arezoo Emadi, UNIVERSITY OF WINDSOR, FACULTY OF ENGINEERING
Adrian Guta, UNIVERSITY OF WINDSOR, SCHOOL OF SOCIAL WORK
Caroline Hamm, WINDSOR REGIONAL HOSPITAL, CANCER PROGRAM
Josee L. Jarry, UNIVERSITY OF WINDSOR, FACULTY OF ARTS, HUMANITIES AND SOCIAL SCIENCES
Sindu Kanjeekal, WINDSOR REGIONAL HOSPITAL, CANCER PROGRAM
Phillip Karpowicz, UNIVERSITY OF WINDSOR, FACULTY OF SCIENCE
Matthew Krause, UNIVERSITY OF WINDSOR, FACULTY OF HUMAN KINETICS
Swati Kulkarni, WINDSOR REGIONAL HOSPITAL, CANCER PROGRAM
Kathryn Lafreniere, UNIVERSITY OF WINDSOR, FACULTY OF NURSING
Cheri McGowan, UNIVERSITY OF WINDSOR, FACULTY OF HUMAN KINETICS
Jayashree Mohanty, UNIVERSITY OF WINDSOR, SCHOOL OF SOCIAL WORK
Ming Pan, WINDSOR REGIONAL HOSPITAL, CANCER PROGRAM
Lisa Porter, UNIVERSITY OF WINDSOR, FACULTY OF SCIENCE
Mir Munir Rahim, UNIVERSITY OF WINDSOR, FACULTY OF SCIENCE
Sara Scharoun Benson, UNIVERSITY OF WINDSOR, FACULTY OF HUMAN KINETICS
John F. Trant, UNIVERSITY OF WINDSOR, FACULTY OF SCIENCE
Indryas Woldie, WINDSOR REGIONAL HOSPITAL, CANCER PROGRAM
Sarah Woodruff, UNIVERSITY OF WINDSOR, FACULTY OF HUMAN KINETICS
Otis Vacratsis, UNIVERSITY OF WINDSOR, FACULTY OF SCIENCE

PRINCIPAL CORE MEMBER SUCCESSES

Everyone in our community has a role to play in health research. WE-SPARK members are a network of people dedicated to improving the health and wellness of our region.

Our research activities are driven by our Core Members, people who work in the research field and are actively engaged on a daily basis. Essential to our progress are those working behind the scenes to elevate research activities including healthcare providers, educators, students, volunteers and supporters.

19
CORE PRINCIPAL MEMBERS



$5,328,282
OPERATING
+
$917,271
INFRASTRUCTURE



$6,245,553
EXTERNAL GRANT FUNDING



102 GRANTS AWARDED



325+ ACTIVE COLLABORATIONS



28 TALKS AND PRESENTATIONS GIVEN



61 PEER-REVIEWED PUBLICATIONS, BOOK CHAPTERS AND BOOKS

9 AWARDS/RECOGNITIONS



40 CLINICAL TRAILS



220 STUDENTS TRAINED

WE-SPARK

Funding research is key to discovery, improving the health of our community and training the next generation. WE-SPARK is committed to increasing our competitiveness in major granting competitions. Our grants program is designed to support local health researchers at all stages of their career.

Igniting Discovery GRANT

Provides seed funding to emerging, innovative and novel health research and education projects.

Incentive GRANT

Designed to support health research projects that have demonstrated significant promise by being ranked highly in recent external National/International competitions but have narrowly missed the funding cut-off. These grants will support researchers as they work to improve their rankings in the next application round.

Infrastructure GRANT

Provides funding to support critical health research equipment and facilities.

Thank you to our generous sponsors.

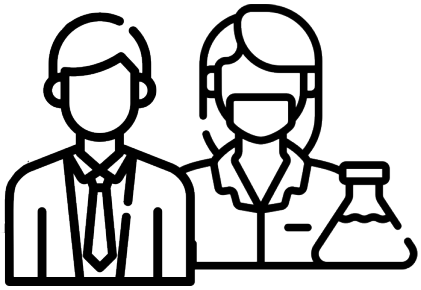
CANCER RESEARCH COLLABORATION FUND

WINDSOR CANCER CENTRE foundation

Katelyn Bedard Bone Marrow Association

CAESARS WINDSOR cares

GRANTS PROGRAM

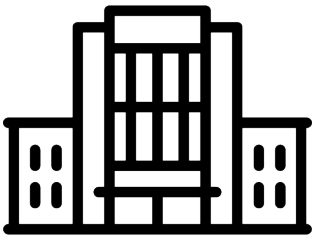


100+
RESEARCHERS INVOLVED
50 collaborators
28 students and
over 20 volunteers



GRANTS AWARDED
29





Academic, healthcare, community and industrial
24 COLLABORATING INSTITUTIONS



FUNDING DISBURSED
$408,000
$265,000 (EXTERNAL) + $143,000 (INTERNAL)

RESEARCH COMMITTEE

Ingrid Qemo (Chair)
University of Windsor

Caroline Hamm
Windsor Regional Hospital

Chris Abeare
University of Windsor

Jenn Voth
Hôtel-Dieu Grace Heathcare

Jody Ralph
University of Windsor

Peter Wawrow
St. Clair College

Simon Rondeau-Gagné
University of Windsor

Lisa Porter
WE-SPARK

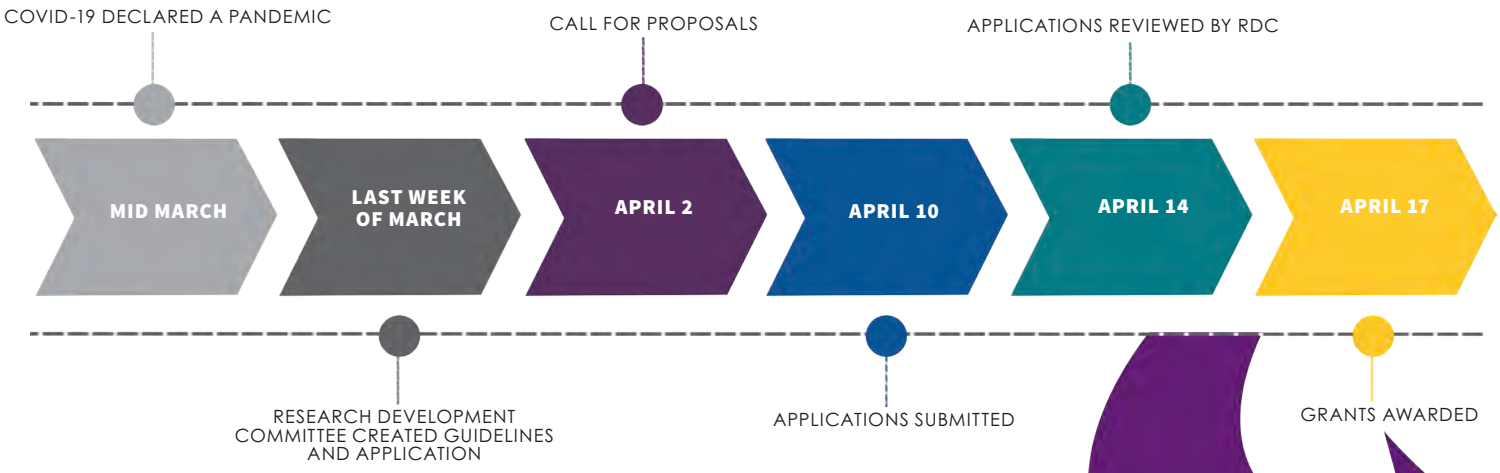
Karen Metcalfe
WE-SPARK

RESPONDING TO THE NEEDS OF OUR COMMUNITY

At the very onset of the COVID-19 outbreak our local research community responded swiftly, engaged and eager to help find solutions. A number of initiatives were launched, which will have immediate and long-term impacts on the health and wellness of our community.

A COVID-19 Resource Hub was created on our website to provide our region with reliable, up-to-date and fact based information for researchers, healthcare providers, students and our community.

www.wesparkhealth.com/covid-19-resources



These projects provided seed funding. Many have now advanced to successfully secure provincial and national grant dollars.

COVID-19 RAPID RESPONSE GRANTS PROGRAM

An **Igniting Discovery Rapid Response Grant Program** was quickly launched at the beginning of April. The research community responded, mobilized their teams and launched 21 projects. The projects span across our four partner organizations and out into our local and international communities, involving hundreds of dedicated, engaged collaborators.

The impact of COVID on Nurses's Well Being in a Border City



Dana Ménard

Emergency Healthcare Logistics



Guoqing Zhang

Locally Made, Customized Hand Sanitizer



John F. Trant

COVID-19 Home Monitoring Program



Jessica Summerfield

Producing Evidence-Based Home Made PPE



Ken Drouillard

Hands Free Door Handle Designs



Jill Urbanic

Examining Pandemic's Effect on Small Business



Kyle Brykman

Early Detection of Pro-Inflammatory Cytokines



Mir Munir Rahim

Coping Mechanisms during Quarantine and Social Isolation



Jayashree Mohanty

The Impact of COVID-19 on Children's Mental Health



Lance Rappaport

Impact of COVID-19 on Physical Activity



Sarah Woodruff-Atkinson

Caring for the Caregiver



Josée Jarry

The Psychological Impact on Healthcare Workers



Jennifer Voth

Diagnostic Testing Using Armored-RNA Technique



Yufeng Tong
*Recipient of 2 grants

Rapid Detection of COVID-19 with Lab-on-a Chip



Simon Rondeau-Gagné

Municipal Resiliency in Pandemics



Edwin Tam

Applying Gamification to Fighting COVID-19



Eunsik Kim

Developing Epidemiological Dashboards



John Ulakovich

Risk Monitoring and Prevention



Rupp Carriveau

Vaping and COVID-19 Complications

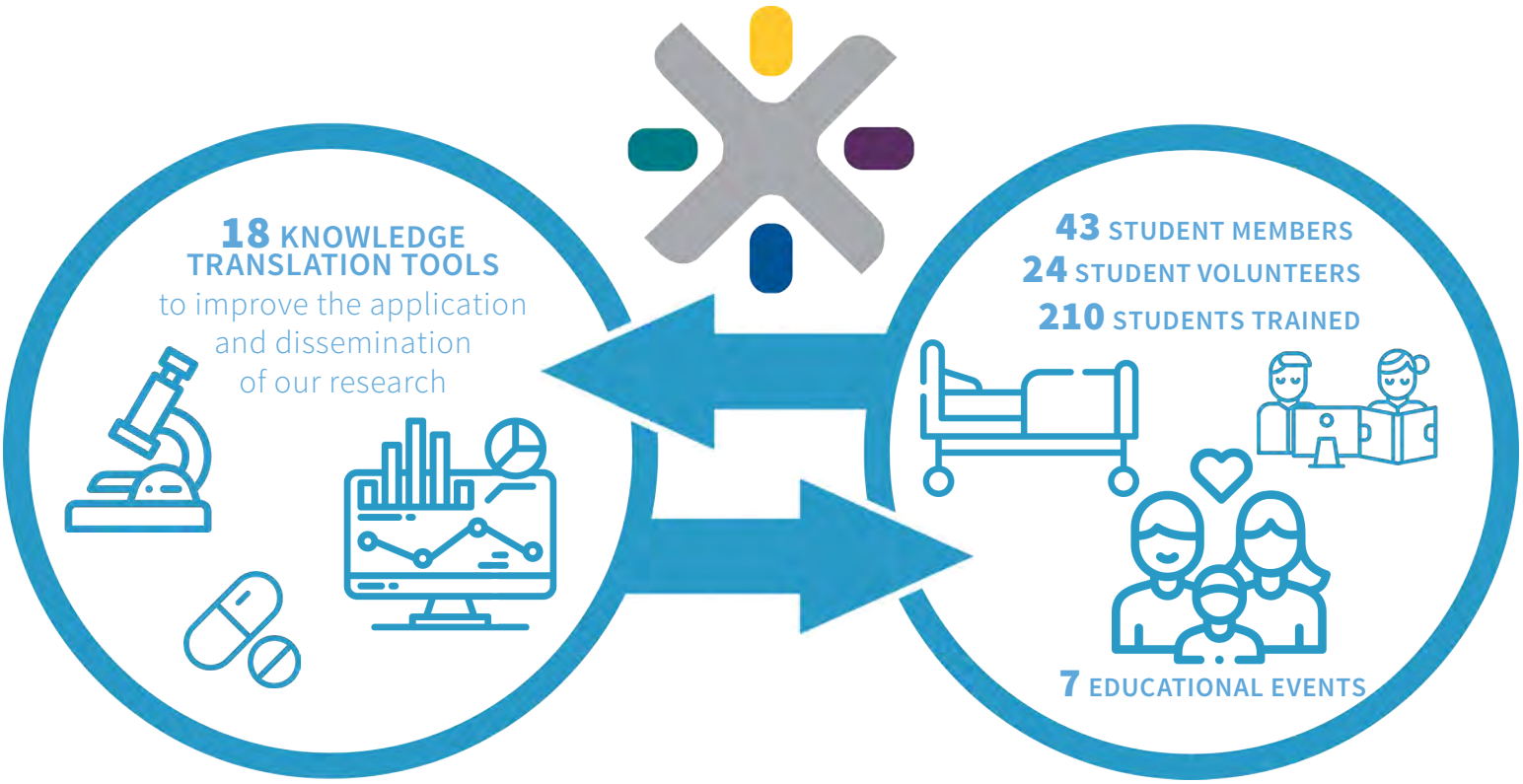


Drew Marquardt

Use the QR code to check out all our projects.

TRANSLATING
INSPIRE AN

WE-SPARK is committed to translating and transferring research information to inspire and drive change. We make research accessible for use in learning, practice, planning and policy-making. We do this through student engagement and training, the creation of educational tools and workshops, and events that promote knowledge sharing and collaboration.





"Being a student researcher needs focus and motivation especially during these tough times. The events organized by WE-SPARK have helped me to connect with fellow researchers, share my ideas, and know what other researchers are doing. Using the WE-SPARK platform, we can connect and collaborate to provide better solutions to health related problems."

~ Tejas Shinde, Student
(Data Analytics for Business), St. Clair College

RESEARCH TO
D DRIVE CHANGE

THINK TANK
MOVING IDEAS FORWARD

"Thoughts are aligned, tasks are assigned, ideas are discussed, energy is focused. New endeavors are born, alliances sworn, On the meeting I like, It's just like a snack, Wonderful Think Tank!"

~ Indryas Woldie
Windsor Regional Hospital, Cancer Program

3 THINK TANKS

142 PARTICIPANTS

9 PRESENTERS

18 ORGANIZATIONS represented

110 MEMBER NEWSLETTER ENGAGEMENTS
core, affiliate and students

The spark

KNOWLEDGE TRANSLATION COMMITTEE

Peter Wawrow (Chair), ST. CLAIR COLLEGE
Dave Andrews, UNIVERSITY OF WINDSOR
Dora Cavallo-Medved, UNIVERSITY OF WINDSOR
Linda DiRosa, HÔTEL-DIEU GRACE HEALTHCARE
Karen Metcalfe, WE-SPARK HEALTH INSTITUTE
Lisa Porter, WE-SPARK HEALTH INSTITUTE
Jody Ralph, UNIVERSITY OF WINDSOR
Indryas Woldie, WINDSOR REGIONAL HOSPTIAL

ENGAGING AND

WE-SPARK IS COMMITTED TO MAKING RESEARCH ACCESSIBLE. The community can stay connected to WE-SPARK through our newsletter, website or on social media: Facebook twitter, Instagram, and LinkedIn.



we spark HEALTH INSTITUTE

Page not displaying correctly? Click here to view as webpage

COMMUNITY CONNECTOR

Bringing research to you.

Vol. 1, No. 1 May 2020

Welcome to our first edition of **The Community Connector** - a newsletter for everyone interested in the health research landscape in our Windsor-Essex region, and beyond. The Community Connector will keep you updated on the exciting research that is happening in our own community, share events that you might be interested in, and highlight ways that you can be involved and connected.

Since the official launch of WE-SPARK on March 9th, our research community has been very busy! Hundreds have been working on **WE-SPARK Igniting Discovery research projects.** Researchers have been sharing their expertise with one another during our virtual **WE-SPARK conversations series**. And we launched a **COVID-19 Resource Hub** to provide our Windsor-Essex community with up-to-date reliable information.

We've also been building **tools** to help make it easier for everyone to navigate the research processes across our four partner institutions, while planning **events** to build and support research teams and help identify funding opportunities. You can learn about our member's research projects, WE-SPARK grant programs and more by visiting **www.wesparkhealth.com**.

WE-SPARK CELEBRATION LAUNCH

Photo credits: Mychailo, Snapd Windsor

850+

COMMUNITY MEMBER ENGAGEMENTS

Community Engagement Committee

Michelle Nevett
ST. CLAIR COLLEGE

Dora Cavallo-Medved
UNIVERSITY OF WINDSOR

Marla Jackson
HÔTEL-DIEU GRACE HEALTHCARE

Allison Johnson
WINDSOR REGIONAL HOSPTIAL

Cathy Mombourquette
WE-SPARK HEALTH INSTITUTE

Chad Sutherland
UNIVERSITY OF WINDSOR

Karen Metcalfe
WE-SPARK HEALTH INSTITUTE

TOP WEBSITE VISITORS

- Canada
- United States
- China
- Israel
- France

EMPOWERING OUR COMMUNITY

470
SOCIAL MEDIA FOLLOWERS

BUILDING TRUST, AWARENESS AND INTERCONNECTIVITY.



@wesparkhealth

2600
UNIQUE WEBSITE VISITS

21
OUTREACH EVENTS

33
TIMES IN THE NEWS

*Website/social media platforms launched in March 2020

PARTNER PROFILES



87,647
PATIENT/ CLIENT VISITS

35
RESEARCH & EVALUATION PROJECTS



RESEARCH HIGHLIGHT

Evaluating the effectiveness of hospital and home-based outpatient rehabilitation services for stroke survivors in the Windsor-Essex community

Dr. Nathania Liem, Clinical Lead, Rehabilitative Programs, HDGH
Dr. Susan Fox, Faculty of Nursing, University of Windsor
Dr. Jennifer Voth, Research Associate HDGH
Dr. Maher El Masri, Director, The Daphne Cockwell School of Nursing at Ryerson University
Joe Karb, VP Restorative Care, HDGH

In this study, patients' clinical and psychological outcomes are compared between HDGH's hospital based and home-based stroke rehabilitation programs. This research will build capacity to better serve stroke patients and their families and it will help staff make targeted and evidence-based decisions when referring to different outpatient programs. Ultimately this work will ensure that patients receive the best possible care.

HÔTEL-DIEU GRACE HEALTHCARE

HDGH
ESTD 1888

PATIENT-CENTRED, VALUE BASED CARE

Hôtel-Dieu Grace Healthcare (HDGH) is committed to improving the health and wellbeing of the Windsor-Essex community through the delivery of patient-centred, valued based care. HDGH is a unique community hospital offering services in Mental Health & Addictions; Rehabilitative Care; Complex Medical and Palliative Care; and Children and Youth Mental Health. We offer a unique blend of services including but not limited to community and home based services. In collaboration with our healthcare and inter-sectorial partners, HDGH is providing care in new ways and in new locations throughout the region to address barriers, improve access and patient outcomes and improve the overall patient experience. We work with our WeSpark Partners to promote excellence in every care experience by integrating research, evaluation and evidence into practice.

RESEARCH REGULATION, RESOURCES AND MANAGEMENT

The Department of Reseach and Evaluation at HDGH has 2.5 full time staff and a team of students and volunteers who support the development and implementation of over 30 initiatives each year. The Department assists in the development of new research ideas from concept to protocol and coordinates collaboration with universities, hospitals, and other external institutes. Research services include: protocol development, REB applications, administration of awarded grants and contracts, study coordination, data collection, statistical analysis and reporting and knowledge transfer and education. The Department also actively supports program evaluation and implementation science projects, including developing logic models and evaluation plans, sourcing/developing data collection instruments, facilitating data collection, implementing evaluation activities, conducting analysis and interpretation of evaluation information, and ensuring evaluation results are used to continuously improve programs.

Office of Research and Evaluation website: www.hdgh.org/research



Youth Advisory Council Members: **14**

Volunteers: **890**

Staff: **1,231**

History **130 years**

Physicians: **134**

Patient and Family Advisory Council Members **11**

Offsite Locations **3**

Campus Acreage **30**

PARTNER PROFILES



16,321
UNDERGRADUATE AND GRADUATE STUDENTS

635
EXTERNAL FUNDED RESEARCH PROGRAMS



Everyday, across our campus, our nation and globally, University of Windsor researchers are making a difference. We are advancing our understanding of the world around us, maximizing benefits to society, and enhancing quality of life today and tomorrow. By collaborating with our partners and stakeholders we have become a vessel for the transfer of knowledge, technology and expertise and are known as a place to stimulate creativity, collaboration and to nurture the inventive spirit. We are committed to training highly qualified personnel who will become our next-generation of health scholars, clinicians, leaders, scientists, engineers and industrial entrepreneurs. Health research and innovation at the University of Windsor are traversing exciting new terrain and opening new vistas. Great things are happening here and, from where I stand, the view has never been more exhilarating!

~ **K.W. Michael Siu, PhD, FCIC, FRSC**
Vice-President, Research and Innovation

UNIVERSITY OF WINDSOR

University of Windsor

THINKING FORWARD, TAKING ACTION

The University of Windsor is a progressive, student-centred university working with our WE-SPARK partners to overcome the health challenges that our communities face. Today, like no other, we must empower our health researchers and trainees to guide the directions of a world in transition.

Windsor-Essex sits at the Southern point of Canada, a retirement beacon for its warm climate and proximity to the international border and home to many unique under-represented populations. It is a region with enormous economic importance in manufacturing, agriculture, health care and more. As a fully comprehensive university, we bring academics and research together to build viable, healthy and safe communities for a more vibrant Windsor-Essex. The University of Windsor is a place of promise.

RESEARCH REGULATION, RESOURCES AND MANAGEMENT

The Office of the Vice-President Research & Innovation houses 26 staff who support University based research programs and those in collaboration with our partners. Some of the primary services include:

- Serve as a liason to federal granting councils, manages submissions and compliance to all grant opportunities. Compiling University research reports.
- Establishing and managing research accounts and providing financial statements.
- Ensure that research is ethical and humane for all animals, including humans.
- Promote the safe use of hazardous materials.
- Provide education/workshops about research practices.

Office of Research and Innovation website: www.uwindsor.ca/research-innovation-services



Alumni
135,000+

Annual Research Funding
$29.8M+

National/Provincial Research Chair Positions :
10

Undergraduate Programs:
190

Research Institutes/Centres:
42

Faculty:
538

WE-SPARK Partner Adjunct Faculty:
26

Graduate Programs:
65

PARTNER PROFILES



188,213
INPATIENT VISITS

54
CLINICAL TRIALS



RESEARCH HIGHLIGHT

Examining the potential use of convalescent plasma to treat COVID-19.

WRH Principal Investigator: Dr. Caroline Hamm
WRH Co-Investigators: Dr. Avi Wasserman, Dr. Ian Mazzetti, Dr. Corinna Quan, Dr. Sukarno Chaudhry, Dr. Wendy Kennette

As part of this nation-wide study, researchers at WRH are examining the safety and effectiveness of administering convalescent plasma collected from donors who have recovered from COVID-19 to patients admitted to hospital with COVID-19. The hope is that this dose of antibodies will decrease the risk of serious complications from the virus.

"There is a strong indication that this is going to help people," says Dr. Caroline Hamm, Chair of the Academic and Research Committee at WRH. "*But until you do the trial you don't know for sure and that's what we're trying to find out.*"

WINDSOR REGIONAL HOSPITAL

WINDSOR REGIONAL HOSPITAL
OUTSTANDING CARE – NO EXCEPTIONS!

OUTSTANDING CARE – NO EXCEPTIONS.

Windsor Regional Hospital is the 11th largest hospital in Ontario and provides acute care services across a range of specializations to serve the needs of the Windsor-Essex region. Over the past decade WRH has aligned our two hospital campuses and made great strides toward becoming an academic health system that attracts and retains professionals from all disciplines and supports world-class innovation, education and care. We work with our WE-SPARK partners and the Schulich School of Medicine & Dentistry - Windsor Campus to connect training and continued learning with research that provides our patients with the latest, cutting-edge care. Patients treated at institutions with research live longer – Windsor-Essex deserves nothing less.

RESEARCH REGULATION, RESOURCES AND MANAGEMENT

The newly formed Office of Research aims to advance the academic and research culture at WRH by offering a centralized approach for all staff engaged in or wanting to explore research. The unit will streamline and support approved projects, while developing and strengthening local partnerships and highlighting the work of local research teams.

Office of Research website: www.wrh.on.ca/officeofresearch

In the Cancer Program, there is an exciting pilot initiative called the Clinical Trials Navigator. This position helps link cancer patients with ongoing clinical trials when an appropriate clinical trial is not available at their home cancer centre.



Emergency Visits: **104,557**

Births: **3,917**

Surgical Procedures: **27,673**

Campuses **2**

Clinical Trials: **54**

Staff: **3,866**

Funded Projects: **42**

Professional Staff: **535**

PARTNER PROFILES



2,398
STUDENTS IN HEALTH PROGRAMS

22
HEALTH PROGRAMS



RESEARCH HIGHLIGHT

Development and customization of COVID-19 epidemiological dashboard

TEAM:
John Ulakovich
St. Clair College, Data Analytics Program Coordinator

Tejas Deepak Shinde, Student Researcher

The proposed project will develop an automated database repository and reporting dashboard to generate and disseminate key epidemiological metrics requested by healthcare professionals and decision makers in order to most optimally care for their patients, control virus spread, and prepare for future similar scenarios.

ST. CLAIR COLLEGE

START HERE.
GO ANYWHERE.

St. Clair College is home to one of the largest number of graduates in Health Science-related programs in Ontario. Each of these programs offers placement opportunities to provide students with work-ready skills. In collaboration with our WE-SPARK partners, the Department of Applied Research and Development functions to advance research in their respective fields and forge connections with community partners.

Our students are addressing community health inequities, they are developing novel technology to advance opportunities for healthcare delivery, monitoring, and pedagogy. By connecting research to applied experience our students are more career-ready and rise above the ordinary.

RESEARCH REGULATION, RESOURCES AND MANAGEMENT

The Office of Applied Research and Development houses 2.5 staff to liaison with granting councils and research partners. The research office manages grant submissions, compliance, safety and ethics.

"In a short period of time WE-SPARK has fostered a collaborative environment between the four partner institutions, resulting in the building of research relationships with very diverse backgrounds. This has also provided the platform from which health related research at St. Clair College can grow."

~ Peter Wawrow
Director of Applied Research and Development

Office of Applied Research and Development website: www.stclaircollege.ca/applied-research



Total Student Enrolment: **13,000+**

Home to **5G-ready Technology**

Campuses: **3**

International Students: **5200**

Funded Health Research Projects: **4**

Academic Staff: **264**

Graduate Employment: **88%**

Alumni: **110,000+**

AFFILIATED PROGRAMS

Cardiovascular disease is the leading cause of death worldwide. Cardiac rehabilitation programs offer important physical and mental health benefits, reduce hospitalizations and lower rates of death. The **Great Lakes Cardiac Rehabilitation Consortium**'s goal is to find solutions to help more patients access cardiac rehabilitation and improve long-term adherence to healthy behaviors that are developed in these programs. WE-SPARK members are engaging with other cardiologists, scientists, exercise specialists, clinical exercise physiologists, and statisticians from Lawson Health Research Institute, Henry Ford Medical Group and the University of Michigan.

Secured PiR Seed Funding – UWindsor-HDGH

Officially launched the GLCRC, and held inaugural meeting at Henry Ford Healthcare in Detroit, MI, USA

GLCRC graduate student investigator, Ms. Cayla Wood, defended her master's thesis

The **Windsor Essex Compassion Care Community** is a community-driven collective impact effort, long-term population health research program, and learning health organization. WECCC is citizens, families, neighbours, service providers, businesses and community leaders working together to build thriving, connected and compassionate communities and neighbourhoods across our region. The WECCC's mission is to measurably improve community and population health, wellness and quality of life and reduce inequities for elderly and vulnerable citizens in Windsor-Essex, with a vision of working together to make ourselves, our citizens and our community more well.

WECCC trained, supervised and mentored 101 new community volunteers

Over 540 high risk and vulnerable individuals and families are now better connected with the community. 222 new individuals received active 1:1 connections support in 2019

Over 2,000 people are now educated about the importance of being connected and future wishes

The **CHPH** is located within the University of Windsor's Faculty of Human Kinetics and is comprised of both the academic Department of Kinesiology and the Division of Athletics and Recreation Services. Faculty, coaches, and staff from each department area combine efforts to showcase exceptional talents and expertise across multiple disciplines in the field of human movement.

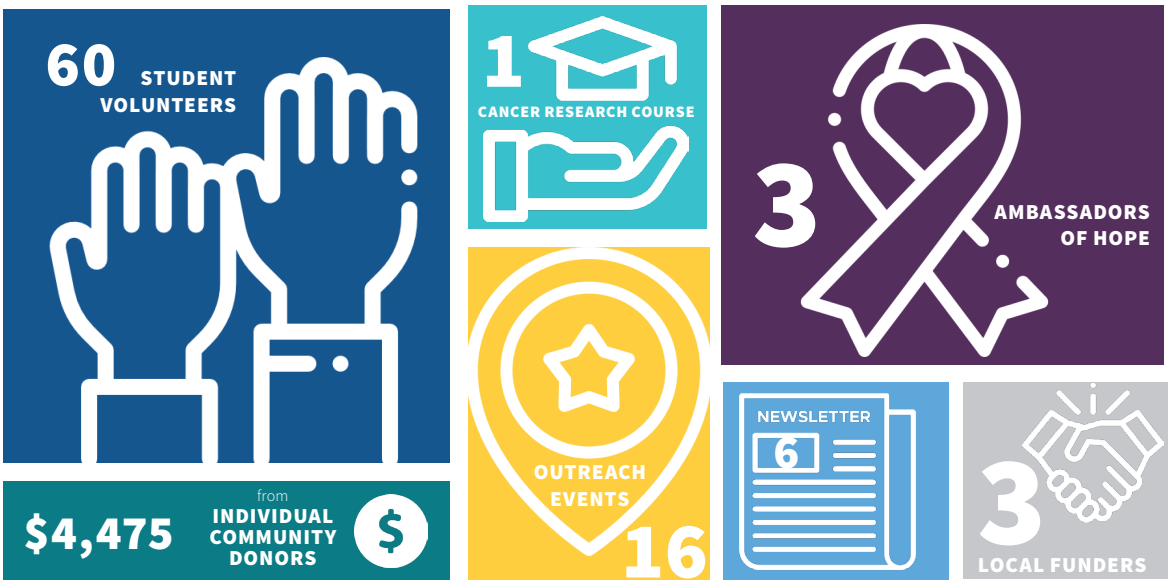
Developed an exercise manual and accompanying videos for adults with intellectual and developmental disabilities for use by organizations across the province to enhance the health and wellness of the people they support

Partnered with local sports organizations to provide physiological and biomechanical testing to athletes, to help increase their performance and minimalize their risk of injury

Partnered with Walkerville Chiropractic to launch an innovative research study using Light Emitting Diode (LED) therapy for the treatment of Parkinson's Disease

WINDSOR CANCER RESEARCH GROUP

"Without research, hope is just a word" - **Dr. Michael Dufresne, 2018 Ambassador of Hope**



Windsor Cancer Research Group (WCRG) brings WE-SPARK cancer researchers together with community partners and neighbouring cancer centres to establish Windsor-Essex as an international hub of cancer research excellence. The vision of WCRG is a united community bridging cutting edge research with world-class cancer care.

In 2019-2020, WCRG engaged with local research supporters to create targeted funding calls and purchase infrastructure for cancer related research. Over a quarter of a million dollars was donated by our community and invested in local research.

CANCER RESEARCH COLLABORATION FUND

WINDSOR CANCER CENTRE foundation

CAESARS WINDSOR cares

$40,000 CANCER CARE GRANT

Caroline Hamm
Windsor Regional Hospital

Cancer Care Grants are supported by local funds raised by the 2019 Play for a Cure event.

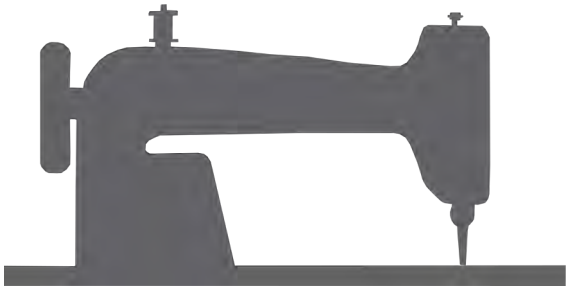
$200,000 SEEDS4HOPE GRANTS

University of Windsor
Debbie Kane
Mir Munir Rahim
Simon Rondeau-Gagne

Windsor Regional Hospital
Ming Pan
Indryas Woldie

$15,000 INFRASTRUCTURE GRANT

TOWARDS ADVANCED IMAGING EQUIPMENT



THE HEART

Health research at its best is a complicated, collaborative endeavour that goes beyond labs, clinics and classrooms. Key to WE-SPARK's growth and impact is the passion and dedication of people in the community that bring the research to life, share the message and commit to action. Impacted personally, they are the heart of research.

It was early into the COVID-19 pandemic when local hospitals asked the community for help. They needed homemade personal protective equipment for their non-critical care areas.

What happened in the months following is a remarkable example of our Windsor-Essex community coming together to produce quality-driven, evidence-based homemade masks. The Windsor Essex Sewing Force (WESF) is a grass-roots volunteer organization that started with just a few home-based sewers and quickly grew to an organization of over 800 members – combining other volunteer sewing groups across the region.

"In a pandemic or really any emergency, groups like ours were ready to help. We already had boots on the ground, machines threaded," said Rebecca Rudman, co-founder of the WESF. Some had extensive sewing experience, some were part of quilting groups, some were students, some came from vulnerable populations, and many were seniors looking for something to do. They were also using their own fabrics. It struck Rebecca and co-founder Karen Harris, that they needed to establish a standard mask, consistent in design and materials. She turned to her husband Dr. Ken Drouillard, a professor at the University of Windsor's Great Lakes Institute for Environmental Research (GLIER). He heard about the WE-SPARK COVID-19 Rapid Response grant call and applied, bringing his 20 years of expertise running an accredited research lab to the project.

"What began as a funding application quickly transformed into a truly collaborative working relationship. WE-SPARK connected us with

WINDSOR ESSEX SEWING FORCE:

Homemade Masks for Health

www.WESF.ca



OF RESEARCH

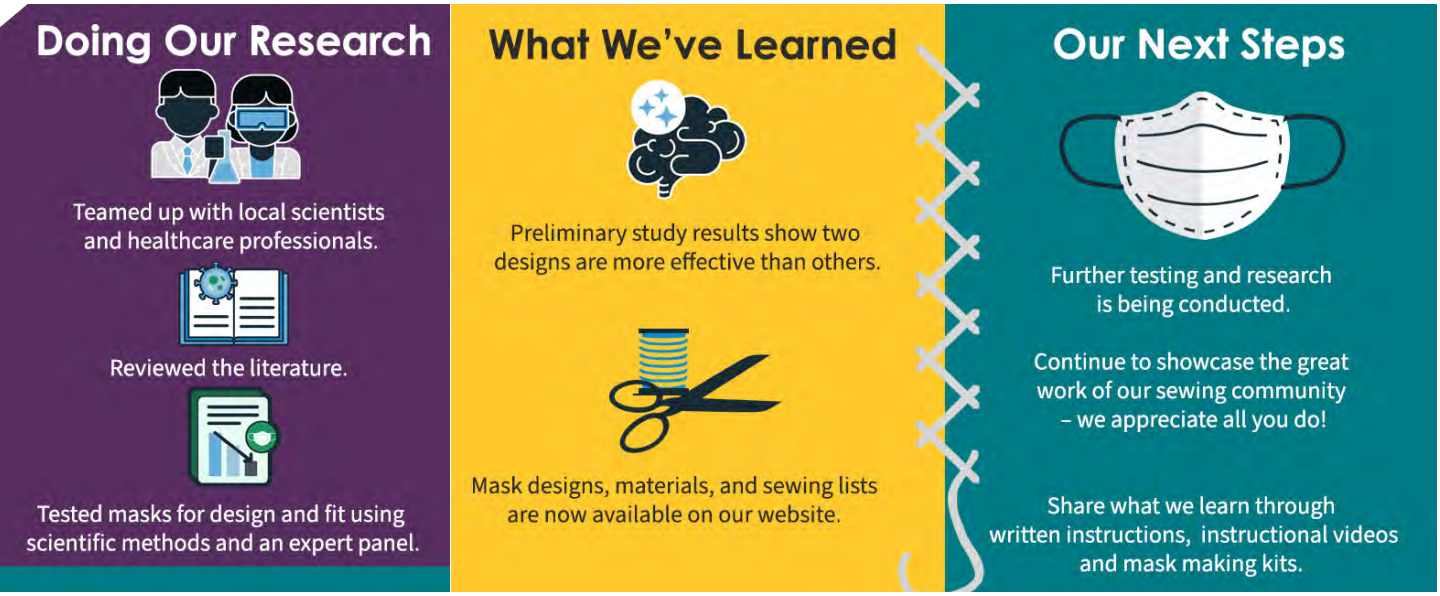
key community members which expanded our production capacity, connected us to research partners to make the best masks possible, and helped us create a robust quality assurance program."

The team produced the optimal designs after enlisting a panel of experts from Hôtel-Dieu Grace Healthcare, St. Clair College, The University of Windsor and Windsor Regional Hospital. The St. Clair College Fashion Design Department then helped refine the instructions, and Dr. Drouillard mobilized resources at GLIER to characterize locally available fabrics. They participate in weekly research calls and have coordinated with other WE-SPARK funded projects to compare research data. And with added support from the City of Windsor they were given free production and storage space, 3D printed sewing tools, and supplies to provide free masks for vulnerable and at-risk populations including migrant workers.

"The knowledge translation tools and communications support we received from WE-SPARK improved the quality of our masks and those of other local groups, as well as across Ontario. They helped us to effectively explain our research, ethics and mission which led to partnerships with the City of Windsor, local hospitals, the Windsor Essex County Health Unit, the Windsor Public Library, long term care and many other health and community agencies."

~ Rebecca Rudman

What started as a spark, an act of kindness, ignited into a multi-institutional, multi-disciplinary project that reached beyond the homes of our local volunteers into our labs, classrooms, farms and hospitals. Now fused together, these connections will last long after COVID-19 is gone. That's what WE-SPARK is about. Igniting connections, living better.



LOOKING FORWARD

WE LOOK FORWARD TO WORKING TOGETHER - IGNITING DISCOVERY, ACHIEVING MORE, LIVING BETTER

In our first year, we established a strong common vision and came together as an engaged community to develop a foundation of programs and processes to drive advancements in health. We are proud that we were able to rapidly work together to support Windsor-Essex and beyond during the COVID pandemic. Year 2 will build on this momentum – we will grow existing areas of strength and support upcoming novel ideas to enhance the health, well-being and care of people in our region. We are united and strong.



PRIORITIES FOR 2020-21

RESEARCH EXCELLENCE	• Address need for a regional Research Ethics Board • Increase profile of all local health researchers on our website • Host events that build collaboration, grow teams and support professional development • Host WE-SPARK grant competitions • Provide support for external peer review
KNOWLEDGE TRANSLATION	• Develop an online Knowledge Translation Toolbox for our research community • Develop a student research network with a student research series • Create a Health Resource Hub • Support novel training opportunities in health research
COMMUNITY OUTREACH	• Broaden distribution of our community and members newsletters • Increase engagement on all social media platforms • Continue to evolve our website capabilities and reach • Launch an Ask the Expert series to support the health-related questions of our community
BUILDING CAPACITY	• Coordinate infrastructure planning • Facilitate joint funding plan for large infrastructure grants • Launch and expand use of data sharing platforms for our researchers

EXPANDING HEALTH RESEARCH INFRASTRUCTURE IS THE MANDATE OF THE NUCLEUS WORKING GROUP:

Otis Vacratsis, University of Windsor (Chair)
Anthony Bain, University of Windsor
Kyle Lago, WE-SPARK
Linda MacDougall, St. Clair College
Krista Naccarato, Windsor Regional Hospital
Jody Ralph, University of Windsor
Kristoffer Romero, University of Windsor

IMPACT REPORT

Igniting Discovery, Living Better.

Research is creating new knowledge.

~ Neil Armstrong

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WE-SPARK HEALTH INSTITUTE

Windsor Regional Hospital · University of Windsor · St. Clair College · HDGH Estd 1888

Statistics reflect the WE-SPARK 2019/20 fiscal year ending on April 30, 2020. Partner statistics reflect their fiscal periods April 1, 2019-March 31, 2020.

Photos courtesy of Hôtel-Dieu Grace Healthcare, Snapd Windsor, St. Clair College, University of Windsor, Windsor Regional Hospital

Graphic Design: Kaila Wilson, Student, University of Windsor