

Shaping the Future of Clinical Research



Shaping the Future of Clinical Research at Oakville Trafalgar Memorial Hospital

Dr. Michael Heffernan
Physician Program Director –
Clinical Research at Halton Healthcare



Over the past three years, Halton Healthcare's Clinical Research program based at Oakville Trafalgar Memorial Hospital has made a significant contribution to the advancement of medical science and continues to achieve the key milestones necessary to expand this important program. Our focus for advancement includes three key priorities: the engagement of more physicians and departments leading clinical research studies; joining the Clinical Trials Ontario organization and the Ontario Cancer Research Ethics Board; and, networking with academic and industry sponsors to bring clinically meaningful research to Halton Healthcare. Community funding has allowed us to lay the foundation for medical research at Halton Healthcare. Now, Halton Healthcare is seeking further funding to establish a named Chair for Halton Healthcare's medical research program.

During this three-year period we have made tremendous strides in expanding clinical research into a variety of fields at our institution. Our initial successes were realized in the fields of cardiology, infectious disease (COVID-19) and the intensive care unit. While we continue to engage in these areas we have now included research studies in nephrology – a patient population which is often under-represented in medical research – and oncology.

Halton Healthcare's research program is particularly excited to be engaging in oncology research. With Oakville Trafalgar Memorial Hospital being home to the Halton region's only cancer care clinic, clinical

research has become an expectation in the care of oncology patients at our institution and we are proud to be able to offer this opportunity to our patients. Halton Healthcare was accepted to be a clinical site in the Canadian Cancer Clinical Trials Network and we have also partnered with the McMaster University oncology research program.

In addition to being accepted by the Canadian Cancer Clinical Trials Network, Halton Healthcare received a favourable review by industry sponsors in the field of oncology. We were felt to be an attractive clinical site based upon our clinical expertise and the research infrastructure that has been solidified over the past several years and were selected as one of the few sites in Canada to conduct a clinical study for the treatment of metastatic breast cancer.

We are proud of the achievements of our clinical research program and the positive impact it has had on patient care. As a community hospital, we have the opportunity to continue to enroll a diverse range of participants across multiple ongoing clinical trials at the institution. This important contribution makes us a valuable partner with external research institutions and industry partners and we plan to initiate additional studies in the fields of heart failure, obesity, myocardial infarction, mental health and end stage kidney disease in the months to come. Our goal is to remain committed to maintaining the highest standards of research integrity, patient safety, and scientific excellence.

FUELING RESEARCH ON A GLOBAL SCALE

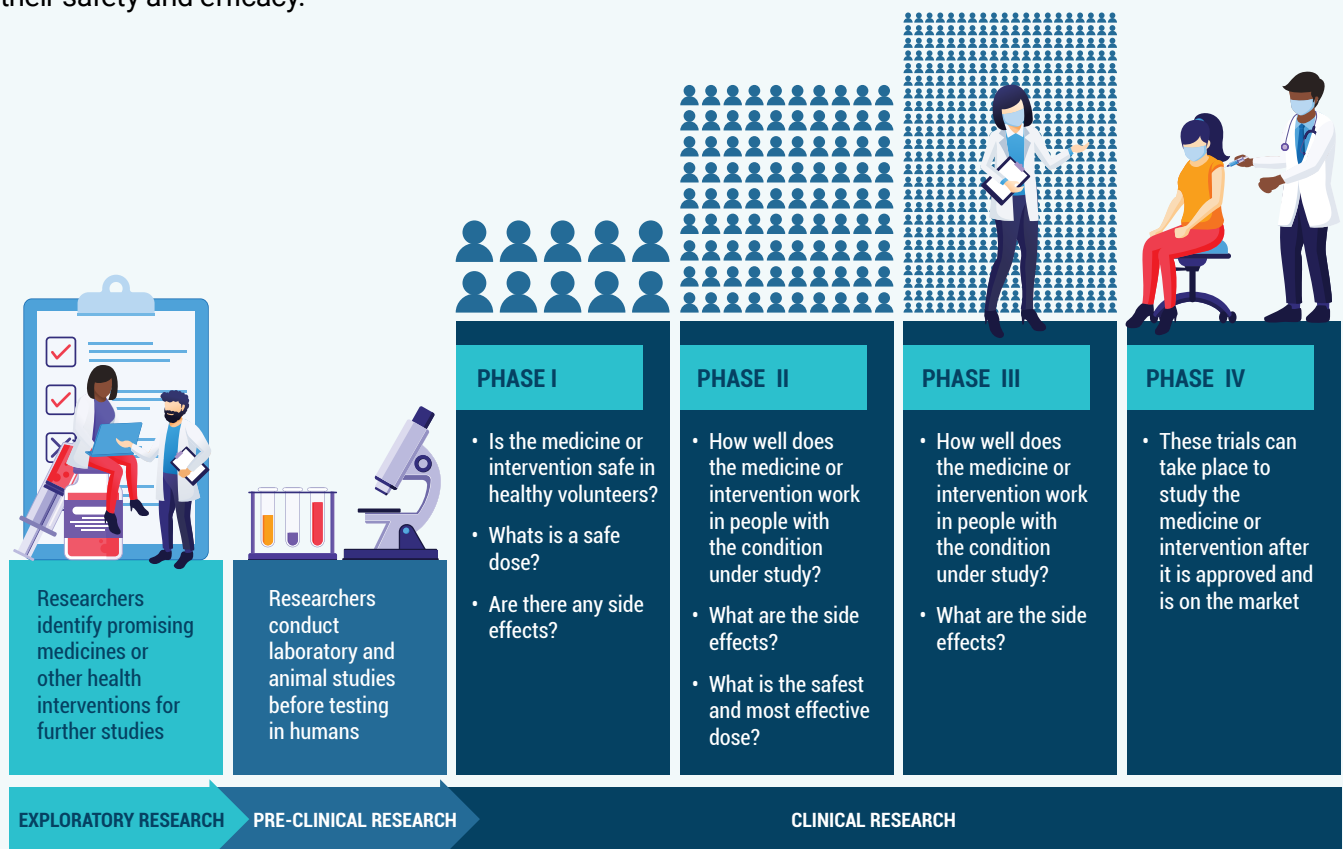
The scale and reach of these large-scale, global research initiatives are crucial for addressing health challenges on a broad spectrum, ensuring that advancements benefit diverse populations across different regions. This global approach is essential for advancing medical science. These studies are not conducted in isolation but involve numerous sites involving thousands of patients around the world, in order to ensure the studies have sufficient statistical power to generate definitive results involving patient care. This helps regulatory bodies like the FDA, Health Canada, and the

European Medicines Agency determine whether new treatments should be approved. We are pleased that we at the Oakville Trafalgar Memorial Hospital have been recognized as one global site that can provide a meaningful contribution to these ground-breaking studies. Community support has directly contributed to our ability to be part of these significant global studies, setting the stage for practice-changing advancements in patient care in the treatment of acute heart attack, heart failure and novel therapies for breast cancer.

THE 4 PHASES OF CLINICAL RESEARCH

Clinical trials play a crucial role in advancing healthcare, often leading to life-changing and life-saving innovations. These trials can evaluate new drugs, surgical techniques, medical devices, or behavioral interventions, providing clinicians with the opportunity to identify more effective treatments, enhance drug safety, and uncover novel therapies. Researchers dedicate years to the development and rigorous assessment of these therapies to ensure their safety and efficacy.

In Canada, this clinical trial journey is broken down into four phases. Each phase has a different purpose and helps researchers answer specific questions. Around the world, hospitals like Oakville Trafalgar Memorial Hospital primarily engage in phase 2, 3 and 4 studies. The phase 1 exploratory research and preclinical studies are not undertaken in a hospital setting but rather in a laboratory at a pharmaceutical company or university.



EXPANDING OUR REACH IN INTENSIVE CARE

We are also thrilled to announce our upcoming participation in an intensive care unit (ICU) consortium across Canada led by the University Health Network. This initiative will enable us to engage more deeply in ICU studies, fostering collaboration with other leading centers to advance care in this critical area. The benefits of participating in this consortium is immense however many of the costs associated with our involvement will be borne by our institution since university-led research projects lack sufficient funding to bear the costs from participating centres. This highlights the importance of ongoing funding to support and overcome these challenges.

TRIUMPHS IN ONCOLOGY

Clinical research has become an expectation in the care of oncology patients. We are thankful that we are now able to offer this opportunity to our patients at Oakville Trafalgar Memorial Hospital. One of the first research studies in oncology that we initiated explored novel therapy in patients living with metastatic breast cancer. In addition, we have initiated a collaborative research project between the divisions of Oncology and Cardiology to enhance the care of patients receiving chemotherapy that develop impairment of their heart function. Halton Healthcare's agreement

with the Canadian Cancer Clinical Trials Network will facilitate our participation in additional oncology studies over the next 5 years.

Our oncology studies continue to advance and the benefit of this research is promising, however, we face logistical challenges, particularly from administrative and oncology nursing staff who are required to manage the operational aspects of these studies to ensure Health Canada compliance. These challenges underscore the importance of thorough budgeting and resource allocation to ensure the smooth execution of our research initiatives.

NEW HORIZONS IN MENTAL HEALTH

In addition to our progress in Oncology, Cardiology, and Nephrology, we are entering a new frontier in our research endeavors—Mental Health. Just within the past year, we launched our inaugural study in this critical area. This milestone marks the beginning of a new chapter in our research capabilities and reflects our commitment to addressing a broad spectrum of health concerns. Furthermore, we are now exploring opportunities with Allied Health and Mental Health to develop research proposals that focus on enhancing the quality and success of our internal processes. While these initiatives may not have the same global impact as our larger studies, they are crucial for improving our hospital's practices and the quality of care we provide to our patients.



FIRSTS IN THE FIELD

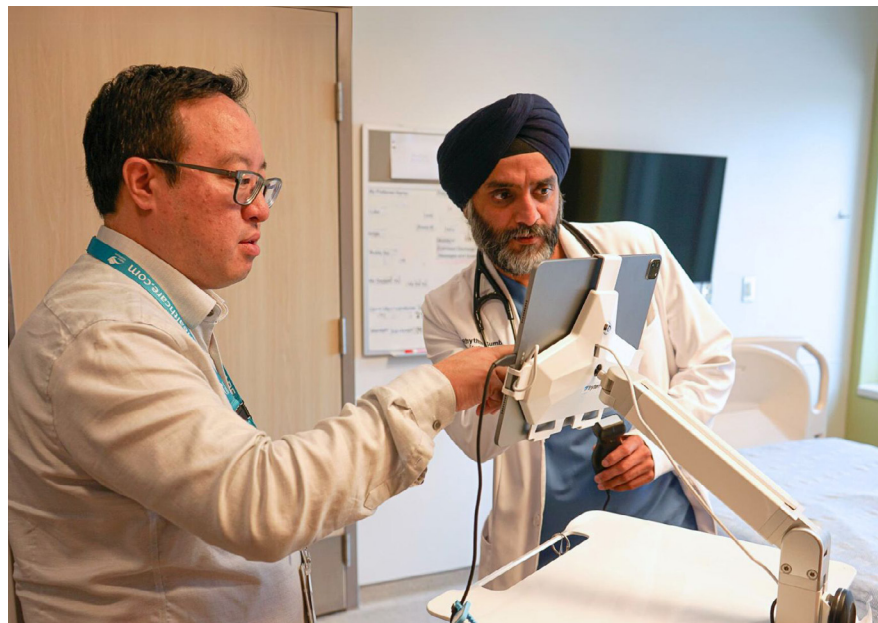
As we embark on our journey into the world of clinical research, we are excited to share a few highlights that showcase our institution as first movers in various clinical studies, illustrating our commitment to innovation and excellence.

- The one and only Canadian site to enrol patients in the COVID study called DARE-19 which was exploring a novel therapy for patients who had contracted COVID
- The first Canadian site to enrol patients in the global heart failure study DAPA-ACT
- The first Canadian site to participate in the intensive care unit study LOVIT which was published in the New England Journal of Medicine.



PHYSICIAN-DRIVEN RESEARCH

Over the past three years of our program, we have also been successful in growing a culture of research activities in-house aimed at improving the quality of care delivered to Halton region patients. The following are a few examples of how our exceptional physicians leveraged opportunities to collaborate and translate research data to benefit our patients and care teams.



MEDICINE

Dr. Chin in the Gemini project looking at how to improve patient care efficiency



PSYCHIATRY

Dr. Hastings reviewing the care of patients admitted with mental health crises



RADIOLOGY

Dr. Feeberwee assessing the potential changes in breast cancer diagnoses



ORTHOPAEDICS

Dr. Bischoff exploring AI and radiology to predict fracture risk



GERIATRICS

Dr. Thomson exploring better methods to assess pain in a patient with dementia

COLLABORATING WITH UNIVERSITY ACADEMIC RESEARCH

In addition to the recently signed agreement with the University Health Network Intensive Care Unit consortium we have been actively engaged in other academic research collaborations. We partnered with the research group at St. Michael's Hospital in Toronto in order to undertake the several dialysis studies mentioned earlier. In addition, we continue to forge a close ties with the Public Health Research Institute at McMaster University and as a result we have engaged in studies in orthopedic surgery, radiology, oncology treatment, heart failure and upcoming studies in vascular surgery, pharmacy and exercise in cancer patients. Halton Healthcare is in the process of formalizing its research collaboration with McMaster

University in a signed agreement. While these university-based research projects are important and aim to answer key clinical questions associated funding is required to undertake these projects.

EMPOWERING THE NEXT GENERATION

This year, we proudly introduced a new initiative that has significantly enhanced our research program. For the first time, we have been able to involve college and university students as research volunteers, thanks to the new resources and infrastructure we have developed. These students, who are actively pursuing secondary education, contribute their time and skills on a volunteer basis. By linking them to various projects, we are not only advancing in-house research but also fostering a deeper engagement with the field.



STRENGTHENING OUR RESEARCH TEAM

To continue advancing our research at Oakville Trafalgar Memorial Hospital, we need to address some critical staffing challenges. Our dedicated team includes a lead administrator who manages both the research ethics board and the research program. This role is currently unsupported by hospital government funding and encompasses responsibilities that would typically require two individuals. As a result, we are constrained in our ability to undertake additional in-house projects.

Expanding our team is crucial for sustaining and growing our research efforts. To maximize our research potential, we plan to expand our team. One of our top priorities is hiring dedicated clinical staff for the research ethics board and other research responsibilities. These roles are essential for managing the complex logistics of research studies and ensuring compliance with ethical standards.

Additionally, our current team includes research coordinators who handle patient interactions, consent, and day-to-day study operations. As our research activities grow, we will require a third coordinator to enhance recruitment efforts and support our expanding study portfolio. Investing in additional staff will not only improve recruitment but also ensure the smooth execution of our studies.

ADDRESSING CRITICAL NEEDS FOR FUTURE SUCCESS

As we continue to advance our research, we are focusing on several key priorities to guide our efforts:



SPACE AND INFRASTRUCTURE

Our current research facilities need improvement to meet Health Canada compliance standards and provide a conducive environment for our studies. Specifically, we require designated space with secure, locked doors to ensure privacy and adherence to regulatory requirements. Additionally, our current setup for outpatient studies is less than ideal, as it relies on shared clinic spaces. Investing in a dedicated clinical research unit would significantly enhance our ability to conduct outpatient studies effectively.



RESEARCH PARTICIPANTS AND STUDENT VOLUNTEERS

To build on the early success of our student research engagement, we are inspired by practices from other leading centers. For instance, we would like to host an annual research fair, where students present their work and are recognized with awards, which can further stimulate enthusiasm for clinical research. We are exploring ways to allocate some of our funding to support such events and enhance the visibility of our program both locally and provincially. Such investments will help elevate the profile of our research program and attract more participants. It is vital for hospitals to actively promote and publicize the need for patient participation in research studies, as increased awareness can significantly enhance enrollment and drive essential advancements in medical research and patient care.



A Heartfelt Thanks



We are deeply grateful for the support from our community for their role in laying the foundation of this program and for making these vital research studies possible.

With a focus on channeling our efforts into advancing treatment options rather than merely focusing on diagnosis or prevention, we were able to make tangible, life-changing impacts for patients who need it most. Philanthropic contributions have paved the way for these clinical studies and have significantly accelerated progress in other critical fields. We are exploring novel therapies for acute heart attack,

heart failure, breast cancer, and improving care for dialysis patients. These studies are poised to be transformative, with the potential to shift global medical practices and improve patient outcomes worldwide.

With further support, we will overcome the funding challenges we currently face in our program and advance our research capabilities. We look forward to creating a brighter future for patients everywhere and making a difference that extends beyond borders and touches lives around the world.

GET IN TOUCH

For more information please contact:

SUZANNE HALLSWORTH

Chief Development Officer

Oakville Hospital Foundation

905-338-4642

shallsworth@haltonhealthcare.com



**Oakville
Hospital
Foundation**

3001 Hospital Gate, Oakville, Ontario, L6M 0L8

www.oakvillehospitalfoundation.com