

UHN RESEARCH STRATEGIC ACTION PLAN



OUR PURPOSE

Transforming lives and communities through excellence in care, discovery and learning

VALUES

Safety, Compassion, Teamwork, Integrity, Stewardship

ABOVE ALL ELSE, OUR PRIMARY VALUE

The needs of patients come first

OUR VISION

A Healthier World



UHN Research Strategic Action Plan

MESSAGE FROM LEADERSHIP

Every day, we are reminded of the power of science.

Exemplified by the development of vaccines in record time or the advancement of artificial intelligence that surpasses human performance, the possibilities of science and research are boundless. Discoveries can be incremental, contributing to the global body of knowledge; and, they can also be transformational, upending paradigms and creating new models or avenues of study. Both uphold principles of academic rigour, ethical conduct, and scientific integrity in the service of society.

The University Health Network (UHN)'s Strategic Plan, **Bold Resolve**, encapsulates a drive to reimagine what a world-class academic health sciences centre can accomplish. Interpreted through the lens of research, UHN's call to action is embodied by the dedication of each and every member of TeamUHN to our Research Mission of driving excellence in discovery and innovation to create *A Healthier World*. With this shared vision, our 'one team' approach to science is the single most important ingredient for excellence in all facets of health research—from revealing the basic molecular and cellular biology underlying human health and disease, to translating that knowledge into solutions, policies, market-ready products, and health education approaches for the benefit of patients worldwide.

In this accompanying Research Strategic Action Plan, *Science for Society*, we outline how our world-class research enterprise aligns its priorities to support the Bold Resolve of Canada's premier hospital network:

- It describes our commitment to meet the evolving needs of UHN's scientific, technical, and operational teams, as well as our community of people with lived experience. This 'one team' approach to science ensures that UHN remains the best place to create cutting-edge and inclusive solutions for all.
- It defines how we will develop tomorrow's leading health care solutions today by championing the full spectrum of health research, the breadth of scientific and medical disciplines, and the data science and advanced technology platforms that support this work. Along with governments, academia, philanthropy, and industry, we will accelerate innovation opportunities to create lasting products and partnerships to solve local and global challenges.
- And, it ensures that team science is woven into the fabric of everything that we do at UHN—aligning research priorities to maximize impact. New structures and workflows will enable our research teams to think bigger and act faster. United with our partners, we will embrace our leadership role to ensure that health research remains a priority for Canada.

Research is bold. Research takes resolve. Together, TeamUHN is ready.

Dr. Brad Wouters
Executive Vice President,

Science and Research

Dr. Kevin Smith President & CEO

Dr. Janet Rossant
Chair, Research Committee
of the Board of Trustees

RESEARCH AT UHN

Research at UHN takes place across its research institutes and clinical programs, which have specific areas of focus in human health and disease, and its collaborative centres, which advance common areas of research interest. UHN's research teams collectively engage in the full pipeline of health research—from fundamental science to translational, clinical, health systems, and education research—for virtually all major causes of global disease burden. In addition, administrative, operational, and technical teams provide centralized supports, services, facilities, and infrastructure across the research enterprise.

CARDIOVASCULAR

RESPIRATORY

CANCER

ARTHRITIS

METABOLISM AND ORGAN FUNCTION

NEUROSCIENCE

VISION

TRANSPLANTATION

CLINICAL STUDIES AND TRIALS

REHABILITATION



BY THE NUMBERS*

*at March 31, 2024

1,199

Principal Investigators 335

Postdoctoral Researchers 1,688

Graduate and Other Students

2,251

Research Staff



557
Support and Core
Facilities Staff

\$599.3 M

Annual Research Funding 4,173

Annual Publications

1.027 M ft²

Dedicated Research Space

RESEARCH MISSION

Together we drive excellence in discovery and innovation to create A Healthier World

GOALS

GOALS FOR RESEARCH IMPACT

UHN's research addresses unmet needs and makes vital contributions to society by achieving the following:



Advancing the fundamental understanding of health and disease for all groups of people



Accelerating discovery and translation to improve clinical practice and health systems



Training, educating, and developing tomorrow's research and health care leaders

GOALS FOR ORGANIZATIONAL EXCELLENCE

Together, UHN's 'one team' of scientific, technical, and administrative experts creates a world-class research destination by achieving the following:



Enabling the development of discoveries that change the world through efficient, rigorous, and cuttingedge support services



Elevating UHN as a preferred solution provider for partners to address local and global health challenges, and for people with lived experience to participate in and benefit from cutting-edge research



Attracting, developing, and retaining top research talent by prioritizing diversity, collaboration, and empowerment

RESEARCH COMMITMENTS

UHN Research's strategic priorities are strongly aligned with UHN's three core Strategic Directions:







Commitments

Engage people with lived experience to enhance health research outcomes for all

Empower all members of the research community through continuous learning and development opportunities

Lead change towards an inclusive, diverse, equitable, and accessible research environment Champion the full spectrum of health research, knowledge translation, and commercialization

Unlock the potential of cutting-edge technologies to accelerate research

Elevate UHN as a partner of choice to solve local and global health issues

Embolden ambitious team science through UHN Collaborative Centres

Deliver
administrative
and core services
with speed
and ease

Embrace our leadership position to sustain and grow the national health research system

STRATEGIC DIRECTION TRANSFORMATIVE EXPERIENCES



UHN's 'one-team' approach means that everyone has the privilege to serve society by addressing local and global health challenges with research. This can only be accomplished by integrating diverse perspectives and experiences into research to ensure that the outcomes benefit all, and by investing in continuous growth for TeamUHN to create an exceptional research environment.

COMMITMENTS

Engage people with lived experience to enhance health research outcomes for all

Enhance our learning health system by bringing more opportunities for people with lived experience to engage in research in a meaningful, authentic, and transparent manner

Empower all members of the research community through continuous learning and development opportunities

Build an environment that supports scientists, staff, and trainees for the future of health innovation, forming the foundation for an enriching research and learning experience

Lead change towards an inclusive, diverse, equitable, and accessible (IDEA) research environment

Strengthen research teams and the work that they do by learning from people with lived experiences and from the histories of inequity in health care to design and build a more inclusive and equitable future for all

SAMPLE INITIATIVES

- The **Pride in Patient Engagement in Research** initiative is transforming UHN into an international exemplar for the participation of patients, families, and community partners in research through resources/toolkits, technologies, and changing organizational structures and culture. The team is developing a unique consultation and coaching service for researchers, and a network of networks for people with lived experience and partner community organizations to connect people with one another, share research ideas and accomplishments, access education and training modules, and enhance the capacity to conduct leading-edge patient-engaged research at UHN.
- The **Research IDEA Committee** is building a culturally safe research environment and integrating principles of inclusion, diversity, equity, and accessibility into the design and implementation of research—progressing towards the systemic change needed for improving health outcomes for all. The Committee is preparing an action plan based on internal consultation with the research community to incorporate IDEA into all aspects of research, and supporting the use of innovative education approaches to build equity competencies for the research community.



STRATEGIC DIRECTION SOLUTIONS BEYOND BOUNDARIES



Innovative healthcare solutions are the result of generating and translating knowledge. These new approaches, interventions, and products require continual testing and specialized expertise to integrate into clinics, health systems, policies, and commercial markets—and UHN is *the* one-stop shop for this holistic approach. Supported by data science and leading-edge technologies, our teams lead and partner to bring new solutions to patients in Toronto, Canada, and around the world.

COMMITMENTS

Champion the full spectrum of health research, knowledge translation, and commercialization

Prioritize basic, translational, clinical, health services, and health education research to create new knowledge, interventions, therapies, policies, commercial products, and other solutions for the unmet needs of patients and communities

Unlock the potential of cutting-edge technologies to accelerate research

Accelerate progress in data science, artificial intelligence (AI) research, and other advanced technologies through the creation of globally leading platforms, and in the development and implementation of new approaches for the diagnosis, treatment, and care of patients everywhere

Elevate UHN as a partner of choice to solve local and global health issues

Form new and strengthen existing partnerships with academic, government, industry, and philanthropic partners, and pursue jointly developed solutions for the communities that we serve

SAMPLE INITIATIVES

- The **Commercialization at UHN** team has refreshed its first-ever strategic action plan, with a renewed focus on accelerating the impact of our most promising innovations and capabilities, and empowering commercialization culture. The team is maximizing value for patients and UHN by increasing capacity in the optimization of data and biological capabilities for the development of therapies and diagnostics, and by increasing the speed and volume of UHN's research engagements through automated approaches.
- The **UHN AI Hub**, one of UHN's Collaborative Centres, is advancing AI technologies and accelerating their applications to support clinicians, researchers, and administrators in providing the best possible care for patients. By forging strategic partnerships with health care institutions and industry leaders, the AI Hub will ensure the safe and responsible deployment of AI technologies at UHN, with the overarching goal to position the institution as one of the world's leading AI-enabled smart hospitals.
- Developing research tools for Epic, advancing the UHN-wide Digital Health Platform, and partnering in the Mayo Clinic's Platform_Connect are providing unprecedented access to data to ask bigger and bolder research questions. Working in partnership with the UHN AI Hub, these initiatives will empower researchers to leverage integrated, multimodal data assets (e.g., medical imaging, clinical, machine/sensor) to transform the delivery of patient care though innovative health research projects.



STRATEGIC DIRECTION ALIGNMENT FOR IMPACT



The breadth of UHN's multidisciplinary expertise is an untapped wealth of innovation. Uniting under a shared vision for *A Healthier World* enables TeamUHN to integrate research into care, share learnings across all corners of the organization, and collectively serve society through research.

COMMITMENTS

Embolden ambitious team science through UHN Collaborative Centres

Pave the way for teams from across all UHN programs and institutes to work collaboratively with internal and external partners on clinical research, drug discovery, health services and policy research, immunotherapy, artificial intelligence, and more

Deliver administrative and core services with speed and ease

Leverage opportunities and understand risk to deliver best-in-class operational and advanced core services—making it easier and faster for everyone to get research done

Embrace our leadership position to sustain and grow the national health research system

Lead and partner in efforts to maximize the impact of research for the public, government, and decision-makers and to advocate for new investment in research—ensuring that Toronto and Canada lead the way to a more healthy and prosperous future

SAMPLE INITIATIVES

- The Clinical Research Executive is embarking on the IA45 transformation to activate studies involving human participants in an average of 45 days. This includes creating a transparent, fast-track stream with clear rules of engagement, streamlining authorization reviews to focus only on those required for regulatory and safety needs, and moving towards attestation and implied approval models for all business, service, and internal impact reviews.
- **UHN Collaborative Centres** are creating communities of excellence in immunology, drug discovery, health services research, and more—growing UHN's position as a global powerhouse in areas of research that underpin the top causes of disease burden. Collaborative Centres will be tasked with thinking bigger and developing cross-cutting solutions for several facets of health and disease.



UHN Research Strategic Action Plan

ENABLERS

Financial Sustainability

Research at UHN is made possible by the invaluable support of our funders—governments, industry, and non-profit organizations—and especially by our dedicated partner foundations: The Princess Margaret Cancer Foundation, UHN Foundation, and West Park Foundation. UHN will work closely with these funders to bring attention to the federal research funding system and the full costs of performing research within academic research hospitals. Together, we will strengthen opportunities to position UHN, Toronto, Ontario, and Canada as a sustainable destination to grow health research innovation and maximize the impact of our discoveries to benefit patients locally and globally.

National Leadership

As Canada's largest research hospital, UHN holds an influential voice in shaping the country's vision for health research. We embrace this responsibility, and we will continue to work with our peers, funders, and all levels of government to ensure that we champion, sustain, and grow Canada's health research ecosystem for the benefit of Canadians—now and in the future.

Part of this work involves educating governments and policymakers on the important contributions made by research hospitals such as UHN, which span fundamental research through to clinical trials and commercialization. The uniqueness of the research hospital environment enables our teams to take innovations all the way from discovery to implementation—a one-stop shop for tomorrow's health care solutions.

UHN's Foundational Commitments and Values

At the core of everything that we do are UHN's Foundational Commitments: Live UHN's Patient & Staff Declarations of Shared Values; respect and uphold Indigenous rights to support the health and well-being of Indigenous peoples; and commit to inclusive and sustainable health impact. These Foundational Commitments are fully embedded in and cross-cut all of the Research Commitments outlined in this plan.

Similarly, our day-to-day work is predicated on our Primary Value that above all else, the needs of the patient come first, as well as the Values of safety, compassion, teamwork, integrity, and stewardship. These lie at the centre of our research, translation, and commercialization activities, and are woven in to the very fabric of UHN's research enterprise.

MEASURING IMPACT

UHN's Research Assessment Implementation Committee used a data-centered and purposeful approach to develop a set of key performance indicators to measure the success of this Research Strategic Action Plan. Aligned with our Goals for Research Impact and Organizational Excellence, the indicators were identified and prioritized following consultations with external experts on the assessment of research, reviews of existing external frameworks, and engagement opportunities with the research community. Throughout this process, the indicators were evaluated against the following guiding principles: meaning and value to UHN; ability to be measured and benchmarked; and applicability to multiple levels of the organization.

The indicators are also informed by UHN's commitment to the Declaration on Research Assessment (DORA), an international best practice that improves the ways in which researchers and the outputs of scholarly research are evaluated.

The implementation of these indicators will ensure a scientific and analytical measurement of performance and impact. It provides the tools and standardized measures of success to inform strategic decision-making and focus on areas of growth and excellence.

ACKNOWLEDGMENTS

We thank all members of TeamUHN—scientists; postdoctoral researchers; scientific, technical, operational, and administrative staff; students and trainees; and Patient Partners—who participated in the development of this Research Strategic Action Plan.

We also thank members of the UHN Research Committee of the Board of Trustees for their valuable guidance throughout the development of this plan. We look forward to implementing this Plan with the support of our foundations—The Princess Margaret Cancer Foundation, UHN Foundation, and West Park Foundation—as well as our academic partners, including the University of Toronto and peers within the Toronto Academic Health Science Network, and government and industry partners.





<u>UHNStrategicPlan.ca</u> <u>UHN.ca | UHNResearch.ca</u> <u>UHNFoundation.ca | thePMCF.ca | WestParkFoundation.ca</u>

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