

UHN'S 2019-23
STRATEGIC
RESEARCH PLAN

RESEARCH AT
 **UHN**



**In it
Together.**

MESSAGE FROM
THE **EXECUTIVE**
VICE PRESIDENT,
SCIENCE AND
RESEARCH

In it Together for A Healthier World.

UHN's triple promise of care, research and education is the cornerstone of our purpose: transforming lives and communities through excellence in care, discovery and learning. This means that research and innovation are a part of everything that we do here at Canada's largest research hospital.

And we have so many opportunities: UHN is home to world-leading research institutes and programs, each with their own strengths and tight integration with clinical and education counterparts.

Our research ecosystem and teams of scientists, clinicians and learners enable us to apply knowledge from one area to another—accelerating discovery and innovation not only across specific diseases or cross-cutting research areas, but also through all aspects of care, research and education. This is part of what makes UHN unique: our ability to listen and learn from everyone to discover, translate and implement new approaches to create A Healthier World.

With these foundational principles and your valuable input, we are excited to present UHN's Strategic Research Plan 2019–2023 to drive research excellence within all of its institutes and programs. The Plan will empower integrated research teams so that they can pursue scientific investigation most effectively. With critical support from our partners, these teams will use research as a tool to develop real world solutions for today's greatest health challenges.

We're excited to embark on this journey, and there's no telling what TeamUHN can achieve together.



Dr. Brad Wouters
Executive Vice President,
Science and Research

The **Research Mission and Values** are closely aligned with **UHN's overall Vision, Purpose and Values**

OUR MISSION
AND VALUES

**UHN Vision,
Purpose and Values**

Vision

A Healthier World

Purpose

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

Values

The Needs of Patients Come First

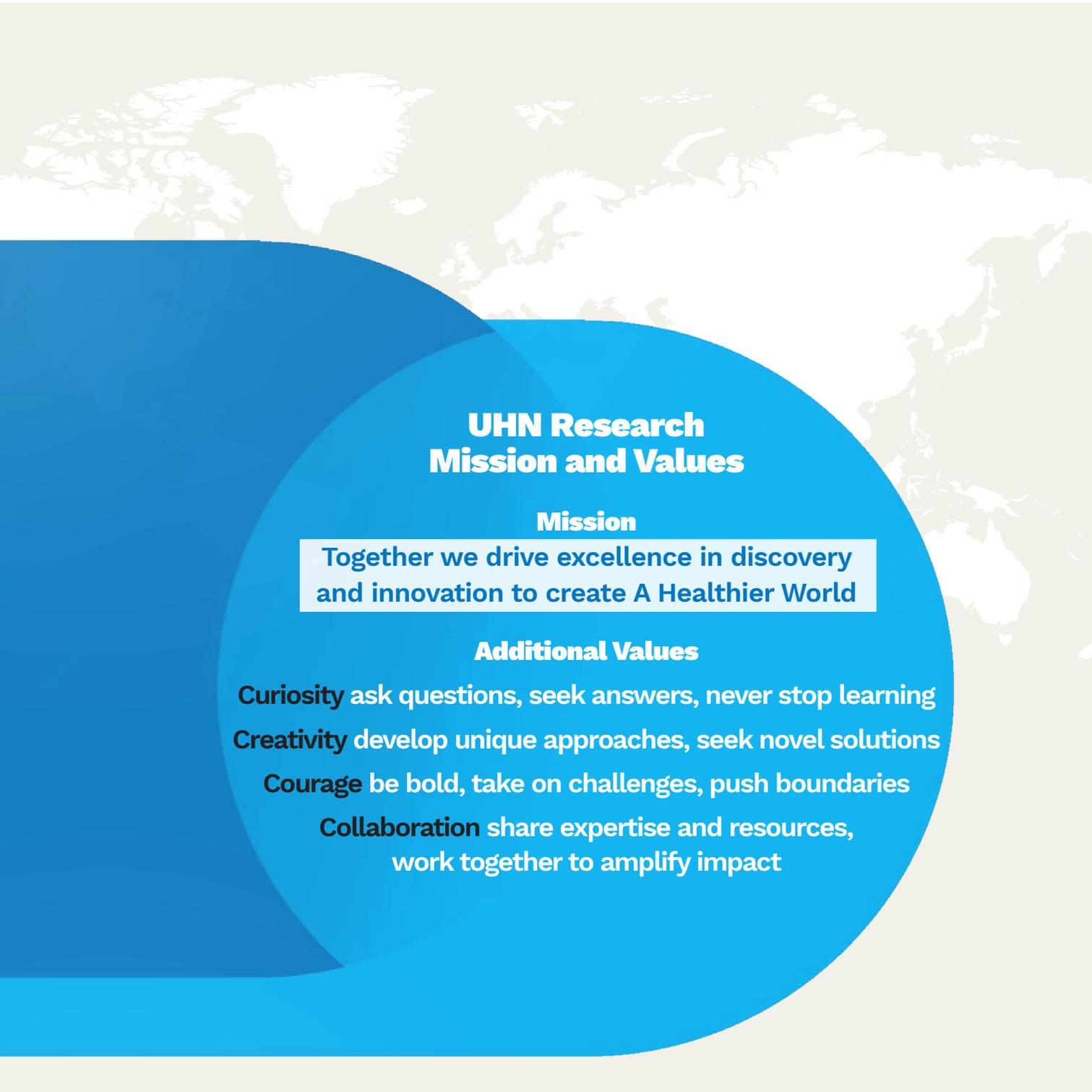
Safety

Compassion

Teamwork

Integrity

Stewardship



UHN Research Mission and Values

Mission

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

Additional Values

Curiosity ask questions, seek answers, never stop learning

Creativity develop unique approaches, seek novel solutions

Courage be bold, take on challenges, push boundaries

Collaboration share expertise and resources,
work together to amplify impact

WHO WE ARE

UHN is made up of four academic hospitals, a school of applied health sciences and various research institutes that work together to make discoveries, create technologies and gain valuable health insights.

Seven categories of chronic disorders account for 75% of all years lost to death and disability in Canada¹.

UHN scientists and clinicians have expertise and significant research efforts to address each.



Cancers



Cardiovascular Diseases



Musculoskeletal Disorders



Mental Health and Addiction



Neurological Disorders, including Vision Disorders



Diabetes and Kidney Disease



Chronic Respiratory Diseases

At least three cross-cutting areas support research in the above areas.



Rehabilitation Science



Technology and Innovation for Health



Applied Health Sciences Education

¹Global Burden of Disease, Institute for Health Metrics and Evaluation. Accessed November 2018.

McEwen Stem Cell Institute



Techna Institute



Toronto General Hospital Research Institute



Krembil Research Institute

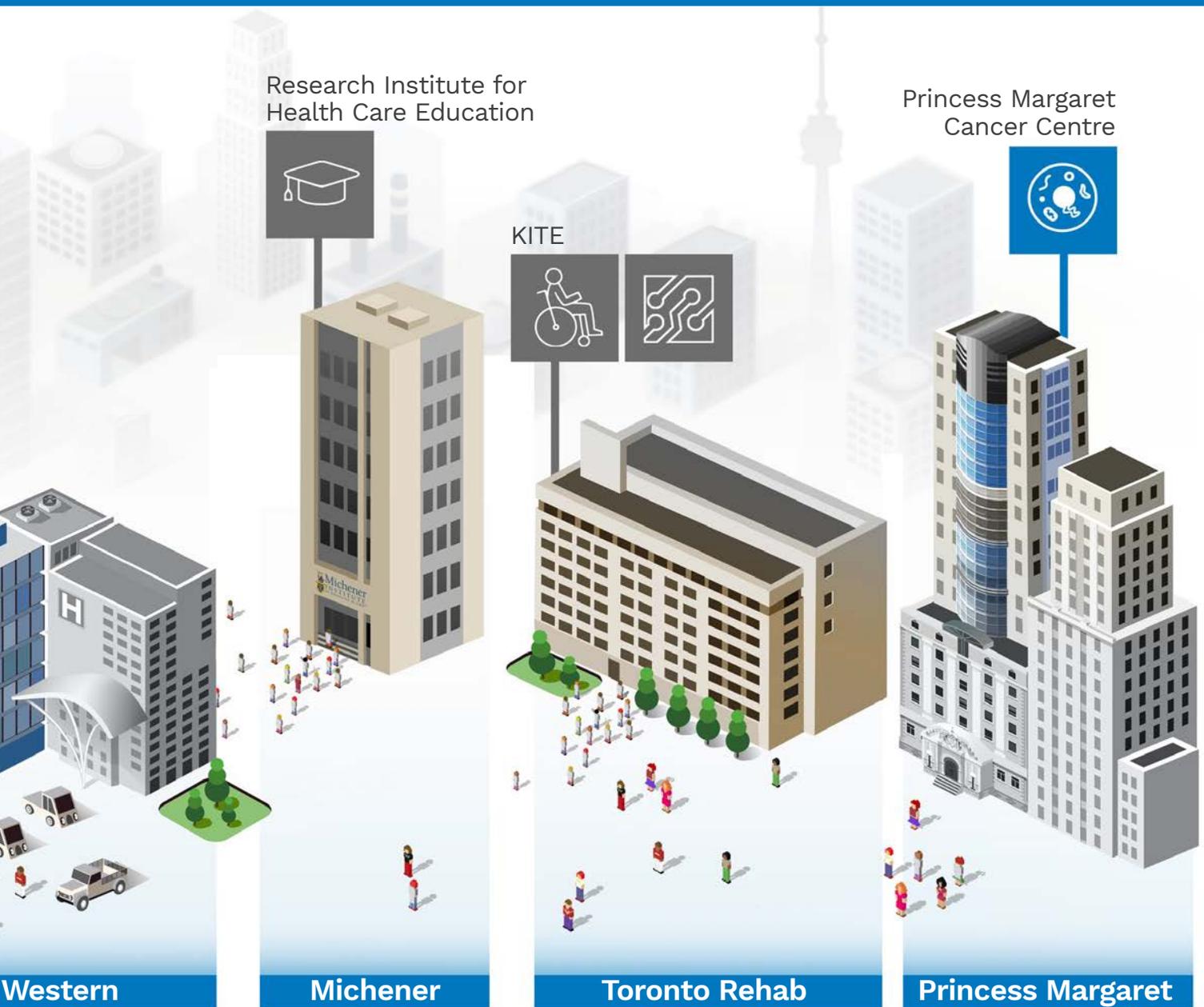


UHN research at a glance:

Researchers 1,020
Funding \$383,083,710
Publications 3,519
Research Space 971,794 sq. ft.

Trainees 834
Institute Staff 1,449
Research Support Staff 258

Data source: 2018 UHN Research Report



OUR GOALS

Goals for impact and organizational excellence.

Research Impact Goals

Research addresses unmet patient needs and makes vital contributions to A Healthier World by:

- Advancing the fundamental understanding of health and disease
- Accelerating discovery and translation to clinical practice
- Training and developing tomorrow's research leaders

Organizational Excellence Goals

- Our research institutes and programs are recognized amongst the world's best, and are home to discoveries that change the world
- A diverse, collaborative and empowering environment at UHN attracts, develops and retains top research talent
- UHN is the best place for patients to go to participate in and benefit from cutting-edge research
- UHN is a preferred partner for academic health care organizations, governments, and leaders in industry, science and technology
- UHN is a strong, financially sustainable organization, attracting funding and delivering exceptional research outcomes and value

OUR PRIORITIES

UHN Strategic Research Priorities.

From 2019 to 2023, we will focus on five Strategic Research Priorities to enhance our research impact and organizational excellence:



Engage every patient to strengthen our learning health system



Empower research teams and collaboration



Accelerate the translation of discovery to practice



Unleash the power of technology and innovation



Grow research through financially sustainable structures



**Engage every
patient to
strengthen
our learning
health system.**

Engaged and empowered patients are the foundational elements of a successful research hospital. As active partners, advisors and drivers of research, our patients, their families and their caregivers are critical to the success of research studies by inspiring us, and by directly participating in the design, execution and interpretation of our research.

With this strength, we will leverage the opportunity to learn from large and diverse groups of people. The insights, experiences and biological and clinical data that we collect will be mined to test hypotheses and generate new ideas—feeding a learning health system to deliver patient-centred care.

We will be driven by curiosity and we will never stop asking questions and seeking answers.

Importantly, knowledge is meant to be shared. We will open up channels of communication and give back to our patients and stakeholders.





**Empower
research
teams and
collaboration.**

TeamUHN is in it together.

We will recruit, develop and retain the world's top research teams, comprising diverse groups of scientists, clinicians, trainees, staff and many other key partners. We will develop and support leaders who prioritize collaborative team science—aligning basic, clinical and health services research with a shared aspirational vision of A Healthier World.

To build new and to strengthen existing collaborations, we will open up access to data, develop best practices and align resources across UHN, which will enable us to share expertise, integrate resources and reduce duplication of effort.

Our strong leaders, teams and collaborative spirit will spark creativity and accelerate discovery, proving that with the right people, anything is possible.





**Accelerate the
translation of
discovery to
practice.**

Research is at the heart of new knowledge creation, and adopting and implementing it can translate into solutions for A Healthier World.

We will optimize opportunities, enhance efficiencies and build resources to increase the translation and adoption of knowledge across the institution—helping to change practices and policies that ultimately improve patient outcomes and experiences. This will be achieved by engaging our clinicians and frontline staff to help bring our discoveries to life, and by creating structures to better support clinical research activities, including clinical trials. We will also streamline and optimize our processes for grant applications and for ethics review and approval.

We will increase commercialization activity, attracting strategic partnerships with the private sector. These industry partners will enable us to refine, validate and implement homegrown and external discoveries.

The convergence of these efforts will bring new solutions sooner for patients with unmet needs.





**Unleash
the power
of technology
and innovation.**

Technology is evolving at an ever increasing pace. These advances are helping us to develop improved therapies, deliver care faster and make better decisions.

We will embrace foundational and leading-edge innovation to accelerate progress. We will establish a digital platform for excellence in data collection, sharing, analysis and reporting—providing the architecture to enable technological advances. Ultimately, we will become a preferred partner for testing cutting-edge technologies.

With internal and external partners, we will build capabilities in artificial intelligence, machine learning and data science to propel discovery.

Our enabled ecosystem will position us to better invent, incorporate and adopt new technologies sooner to benefit our patients.





**Grow
research
through
financially
sustainable
structures.**

We need to be accountable to ourselves, and to all of our funders and partners.

We will increase external funding from government and industry sources, seeking to influence, attract and steward funding for research that will create A Healthier World.

Working with our invaluable foundations, we will grow funding and ensure that it addresses the areas of highest need and potential impact. We will invest in our research institutes, core facilities and support services to ensure that we are in a position to grow in a sustainable way.

The effective stewardship of research funds will secure a future of continued creativity, growth and impact.



Imagine UHN

A dynamic **research environment**

Collaborative teams of experts across the full continuum of research with knowledge and opportunities to work together across basic, translational, clinical and health services research

Integration of research, care and education, enabling researchers to work with, and learn from, large and diverse groups of patients, clinical practitioners and scholars to invent tomorrow's care

Accelerated learning, discovery and impact across UHN, driven by collaboration, sharing of data and expertise, and mechanisms that support knowledge translation

Research leadership with local, national and global influence, helping to make Toronto and Canada a global hub for research partnerships in health care, industry, science and technology



...in 2023

Key **capabilities** that drive impact



High-performing people and culture, including TeamUHN's researchers, trainees and support staff empowered to act on innovative ideas and supported by a culture of curiosity, creativity, courage and collaboration



Leading-edge infrastructure, technologies and support services that facilitate and enable research excellence—increasing efficiency, effectiveness and impact



Strong external partnerships with industry, innovation leaders, governments, academic institutions, patients and families, and donors and foundations



Effective governance and financial sustainability to influence, attract and steward funding to support research priorities, infrastructure and growth for the greatest impact per dollar

Alignment of Research Strategy

Our five research priorities are framed in the context of UHN's priorities—enabling both strategies to align with and support each other towards creating A Healthier World.



OUR DESTINATION



UHN PRIORITIES

UHN RESEARCH PRIORITIES

Acknowledgements

Thank you to the Research Committee of the Board of Trustees, the advisory body for research at UHN, for their continued expertise and wisdom. Chaired by Lawrence Pentland, the Research Committee has three priorities, one of which is to oversee the strategic planning process. Throughout the development of the plan, this Committee has provided critical insight on the scope, strategic priorities, and driving and enabling factors.

In particular, a Steering Committee for the strategic planning process—comprising Research Committee members Tom Ehrlich, John Granton, Brian Hodges, Lawrence Pentland and Barbara Stymiest—was instrumental at all stages of the plan, from conceptualization to alignment with the corporate strategy to finalization of the overarching strategy. Their input has undoubtedly helped to shape the plan into one worthy of UHN’s stature on the world stage.

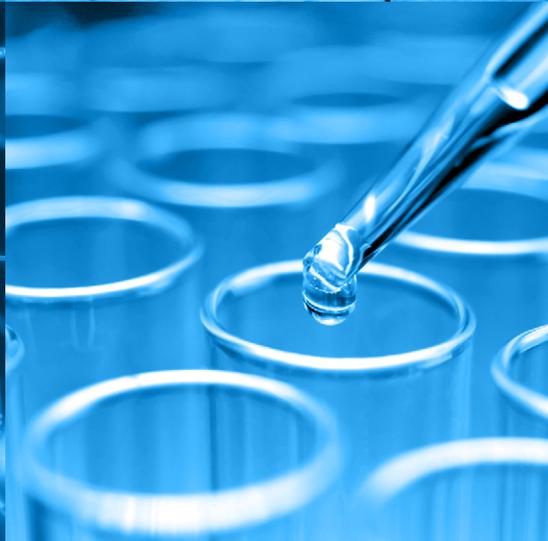
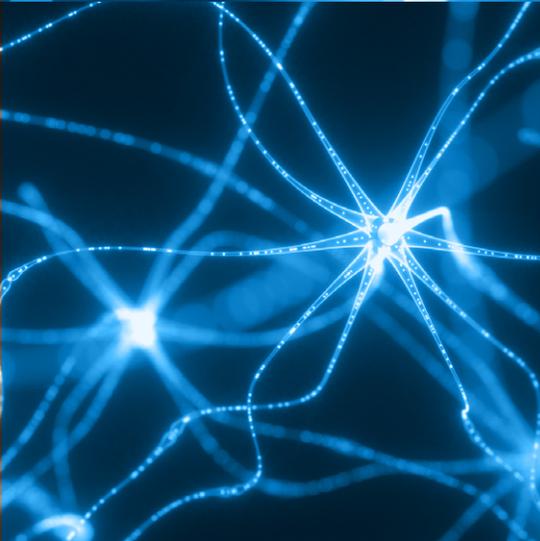
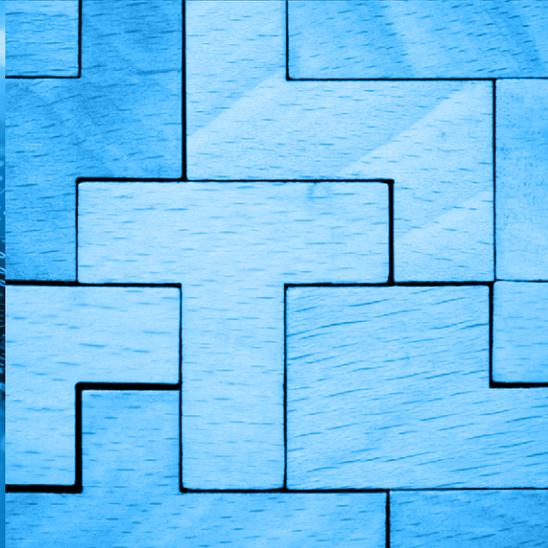
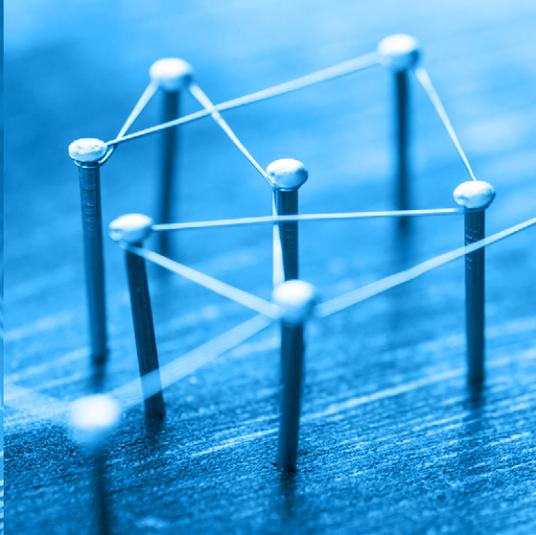
We would also like to thank the Core Working Group, as well as members of TeamUHN, patient partners, our foundations, the University of Toronto and other affiliated institutions—nearly 300 individuals—for their valuable input.

Core Working Group

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What's next?

We will establish a diverse group of individuals with representation from across the UHN Research community to develop specific goals and initiatives for each of our five priorities. As part of this process, metrics for success will be established to ensure that we are on track to reach our goals for research impact and organizational excellence.

We will continue to ensure alignment with UHN's broader strategy, priorities, goals and initiatives.

Contact us

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