

# Advancing Breakthroughs in Oral Health

## **Research Support**

The Campaign for the Faculty of Dentistry



"Imagine the impact the Faculty of Dentistry can have on the future of oral health science and care—a future where drills are not required for filling a cavity, access to oral health care is a reality for all Canadians, we can stop bone degeneration to alleviate osteoporosis, heal infectioninduced inflammatory diseases with engineered nanoparticles and effectively diagnose and treat chronic pain. These outcomes and more are being worked on at U of T Dentistry."

Arthur Zwingenberger
U of T alumnus (BA 1963 UC, MA 1965)
Former chair of dental industry leader SciCan

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### Enhancing human health and well-being

U of T's Faculty of Dentistry generates revolutionary breakthroughs in oral health science and advocates for accessible oral health care for all Canadians. Our campaign will support this essential work.

The oral health field has reached an inflection point. Innovative technologies and therapies are transforming care, offering patients unprecedented possibilities for treatment. New insights are uncovering the links between oral health and cardiovascular disease. diabetes. mental health and other chronic conditions. Issues like pain management and providing access to care for vulnerable communities continue to challenge the profession.

In this context, the need for the Faculty of Dentistry's research and advocacy has never been greater. We are investigating the links between dental health and overall health, broadening the scope and impact of our field. And we are committed to pushing for new, effective policies, driven by our belief that dentistry can open a window to a better quality of life.

To support this important work, the Faculty of Dentistry has launched a significant fundraising initiative as part of Defy Gravity: The Campaign for the University of Toronto. Built on a framework of inclusive excellence, Defy Gravity seeks to create solutions for today's most pressing challenges. The campaign reflects U of T's history of advancing the frontiers of knowledge by transcending disciplines and borders in a diverse and inclusive community that emboldens students

and faculty to think big a community that accomplishes things no one else believed possible.

The Faculty of Dentistry is pivotal to realizing the campaign's vision as we continue to make bold strides in areas such as understanding pain, investigating the increasingly clear links between oral health and overall health, and improving quality of life for countless patients.

With the support of our donors, our researchers can continue to advance the field in search of better treatments and more equitable oral health care—ultimately securing a healthier future for all Canadians.



## Leading innovation that improves lives

The University of Toronto's Faculty of Dentistry is home to internationally renowned researchers across all oral health science disciplines who are conducting high-impact research that is improving oral health—and overall health—here in Canada and around the world.





Occupies a unique position in Toronto's downtown core, next to globally ranked hospitals and research institutes that regularly collaborate with the Faculty Ranked first in research output in Canada and a significant international contributor to research in biomaterials, pain and fibrosis

Home to 13 dental clinics that essentially form a dental hospital



Highly engaged with the surrounding community, including through an accessto-care initiative that serves vulnerable populations Ranked 1<sup>st</sup> in Canada and 43<sup>rd</sup> globally (QS World University Rankings 2023)

15,000 patients totalling 93,000 appointments fill 263 chairs at our clinics every year



Has produced more than 14,000 alumni who have gone on to a wide range of careers, including providing the best possible care in their communities, training the next generation and breaking boundaries in research Canada's first, largest and most comprehensive dental school

58% of the Faculty's patients identify as "working poor," with a household income of \$40,000 or less

The only school in Canada to offer advanced training in all 10 dental specialties





## Pushing critical research to new heights

Endowed chairs are crucial to attracting and retaining top talent at the University of Toronto's Faculty of Dentistry, and their work ultimately leads to better oral health care—and better overall health—for all Canadians.

Faculty members at U of T Dentistry are at the forefront of integrated research that is changing how we deliver patient care and improve lives.

Our researchers are producing revolutionary innovations in the field, from insights in periodontal wound healing that have paved the way for successful dental implantations to the development of completely new biomaterials that are transforming surgery and care delivery. U of T Dentistry is also leading the way in establishing a more systemic approach to health, with oral health being recognized increasingly as a critical component of overall health.

The ability to establish and fund chairs enables the Faculty to draw the very best minds in dentistry and oral health science to U of T and support their efforts to advance these areas, impact practice and influence public conversations. A renowned expert can also be a magnet for top students.

Endowing chairs allows us to fund vital research areas in perpetuity. This enables us to attract the highest calibre of academics and provide them with the sustaining resources they need to galvanize their work, share their knowledge and build important relationships. The Faculty invites you to help us create endowed leadership positions in the following critical research areas:

- Pain & Neuroscience
- Dental Public Health
- Comprehensive Care
- Biomaterials

In recognition of your gift to establish an endowed chair in one of these priority research areas, we would be pleased to name the chair in your honour—or someone special to you.

#### **Chair in Pain & Neuroscience**

In recent years, researchers have been investigating how we feel pain, whether pain can be "turned off" and other questions related to pain perception, processing and modulation. U of T researchers have been leading the way in this area, applying various electrophysiological, imaging, molecular, genetic, sensory and behavioural techniques to understand sensory and motor activity mechanisms and their control and plasticity. A dedicated chair in Pain & Neuroscience at the Faculty of Dentistry will help attract a preeminent researcher and further knowledge in this critically important area.

#### **Chair in Dental Public Health**

The COVID-19 pandemic has further highlighted the disproportionate burden of disease underserved segments of the population bear. These most vulnerable populations — including seniors, people with special needs, those living in poverty, newcomers to Canada, Indigenous Peoples and others — similarly have the highest rates of dental decay, pain and disease, and the least access to oral health care. A dedicated chair in oral health-care policy would allow a leader at the Faculty of Dentistry to champion policies that help ensure all residents of Canada have more equitable access to this important component of their overall health care.

#### Professorship in Comprehensive Care

The Faculty's Comprehensive Care Program is central to our Doctor of Dental Surgery curriculum. It emphasizes rational, healthoriented and evidence-based patient care that addresses the patient's specific problems and is in their best interests. A dedicated professorship in Comprehensive Care at the Faculty would enhance our primary clinical education program, help our undergraduate students become leading-edge dentists and elevate the profession.

#### **Chair in Biomaterials**

U of T Dentistry has a decades-long, internationally renowned legacy in biomaterials, a field that discovers, develops and refines materials that can potentially replace or regenerate organs, tissues and bone. About 90 per cent of dental clinical care involves such materials, from implants and fillings to restoring soft tissues like the gums.

Given how frequently biomaterials are used in our clinical care, this is a key area where we can improve patient experience and quality of life. Researchers are also increasingly realizing that the oral microbiome can serve as a window into the body, which is leading to the development of new oral diagnostic tools with innovative biosensitive materials that can produce faster results than current technologies. A dedicated chair in biomaterials would help accelerate this kind of transformative research by providing sustained support for an expert in the field who will lead these cross-disciplinary efforts. "U of T Dentistry is a renowned leader in biomaterials, which brings together an astonishing array of expertise to create new ways to diagnose and heal the body. We have an outstanding record of patents, commercialization and venturebuilding—and the discoveries we make here in dentistry have applications far beyond our own field, from new oral diagnostic tools that provide insights into whole system health to advancements in regenerative medicine that can help cancer and cardiovascular patients more fully recover from body-altering surgeries."

#### — Paul Santerre

Professor, Faculty of Dentistry and the Institute for Biomedical Engineering Director, Health Innovation Hub (H2i), Temerty Faculty of Medicine Baxter Chair for Health Technology and Commercialization, University Health Network

### Thank you

We invite our community of generous and visionary supporters to join U of T Dentistry's efforts to make the world a healthier place through research breakthroughs that can transform dental care and improve lives.

Thank you for considering a donation to support the University of Toronto's Faculty of Dentistry. Your gift will contribute to the Defy Gravity campaign, which is supporting cutting-edge research and clinical practice to address pressing global health challenges.

The benefits of your gift will be felt for years to come through advancements in areas like pain and neuroscience, dental public health, comprehensive care and biomaterials, each of which can lead to more effective and efficient oral health care for countless patients.

You can help us make a powerful difference as we expand what's possible in oral health care — and make this important aspect of health more accessible to everyone.

## Recognition Opportunities for Campaign Donors

We will recognize major donors to the Faculty's campaign on the donor wall in our Dental Patient Reception Lobby, a hightraffic location that sees thousands of patients, as well as U of T Dentistry's many students, faculty members, staff and visitors, pass through every year.

Naming opportunities are also available depending on the direction of your gift, including the naming of endowed chairs that will support the Faculty's cutting-edge research.

We will also invite major benefactors to exclusive events and provide you with annual reports on the impact of your giving.



By supporting U of T Dentistry's campaign, you can help us create a healthier society through breakthroughs in research and more equitable access to oral health care.

To join our efforts, please contact **Selina Esteves** (selina.esteves@dentistry.utoronto.ca) or visit dentistry.utoronto.ca/giving.



