THE UNIVERSITY OF TORONTO: POWERING THE NEW ECONOMY

The University of Toronto produces highly skilled graduates, groundbreaking research and game-changing innovation. U of T provides Ontario with the knowledge, ideas and talent to compete in the global economy.

UNIVERSITY OF TORONTO

BOUNDLESS

HOW U OF T CONTRIBUTES TO ONTARIO

A Vital Pipeline of Talent

At U of T – consistently ranked Canada's top university and among the world's best – we prepare students for careers in a range of fields, including business, engineering, health care, humanities, arts and technology. U of T ranks first in North America among public universities for the employability of its graduates and 13th globally. We equip our students with core competencies such as critical thinking, problem-solving and teamwork.

We are also reinventing higher education by providing students with opportunities for work-integrated learning and international experiences. Our world-leading innovation and entrepreneurship network helps students transform creative ideas into startups, products, services and jobs.

93% of U of T undergraduates are employed within 2 years of graduation

1 in 5 U of T Ontario alumni has started at least one company

27% of U of T alumni that are doctors, nurses and pharmacists in Ontario live and work outside the GTA

U of T and its partner hospitals file a patent approximately every three days

U of T graduate **Anston Emmanuel** works at GM in Markham as a development engineer and credits his U of T experience creating a startup with helping him land the job.

"We are attracted to the talent at U of T and the very well-known research activities by the faculty. To us, it's really about the ecosystem – the talented students and faculty, the startups and entrepreneurship culture."

Fengmin Gong, Head of DiDi Labs, Silicon Valley

Creating the Jobs that Drive the New Economy

U of T is helping companies scale up and create jobs, including **Peterborough**'s Charlotte Products. The company collaborated with U of T researchers to develop new technology that is revolutionizing infection prevention in hospitals, seniors' centres and daycares.

Partnering with Industry to Solve New Economy Challenges

The Smart Freight Centre is a collaboration between universities, industry and **Peel Region** to tackle the most pressing transportation and logistics issues facing Canada's busiest commercial and residential hub, including congestion, emissions and the rise in e-commerce traffic.

Attracting Capital to Ontario

Foreign investment in Canadian talent and technology is growing exponentially. At $5.8 billion, Ontario is the number one province for foreign direct investment (FDI). With the strong support of U of T's innovation and entrepreneurship network – such as the **Creative Destruction Lab** – Toronto is North America's fastest-growing tech market. University of Toronto entrepreneurs have created more than 500 companies and secured more than $1 billion in investment over the past decade and companies such as LG, IBM, Uber and Google are partnering with U of T researchers to leverage their expertise in machine learning and AI.

POWERING ONTARIO'S NEW ECONOMY

Artificial Intelligence

U of T is a world leader in the knowledge, creation and use of AI, placing the province at the cutting edge of this globally important technology. We graduate new AI talent and create jobs and AI startups that result in "made-in-Ontario" products and services.

Geoffrey Hinton pioneered artificial neural networks and deep learning at U of T – shaping and influencing today's AI industry. Hinton continues this work at the Vector Institute, along with the world's best minds in machine learning and artificial intelligence. Established with $170 million in support from the federal and provincial governments and private companies, Vector leverages the country's position at the forefront of this rapidly advancing field.

Ross Intelligence, a U of T AI startup with a presence in Silicon Valley, established their research and development headquarters in Toronto, rather than a U.S. location, thanks to the favourable business environment along with ready access to U of T's AI graduates and ecosystem.

Established through a generous $100 million gift from Gerald Schwartz and Heather Reisman, the new **Schwartz Reisman Innovation Centre** will convene experts in AI and biomedicine, top minds in social sciences and humanities and up-and-coming entrepreneurs.

Fintech

U of T researchers are developing the science behind the next generation of fintech applications that will provide a cutting-edge advantage for Ontario.

U of T is a world leader in fraud detection, cybersecurity and big data analysis. We build essential links between researchers, innovators, regulatory authorities and partners in Ontario's financial services sector.

Toronto is North America's second largest financial hub; its financial services sector has a GDP of $42 billion

Advanced Materials & Manufacturing Technology

U of T's world-class facilities improve industrial productivity and support the competitiveness of companies across Ontario.

We collaborate with over 250 companies and organizations on advanced manufacturing research, including Ford Canada, GM Canada, Samsung and DuPont Canada.

U of T research centres, like the Toronto Institute of Advanced Manufacturing and the University of Toronto Electric Vehicle Research Institute, allow industrial partners to access our expertise and infrastructure to turn great ideas into better products.

U of T's Robotics Institute is the largest in Canada. Researchers there are creating robots as small as one millimetre in diameter to help in areas from microsurgery to earthquake recovery.

U of T professors Kamran Esmaeili and Angela Schoellig partnered with McEwan Mining near **Timmins** to develop drones that provide valuable data to mine managers, contributing to better decisions and safer, more efficient and more economical mining operations.

Regenerative Medicine & Precision Medicine

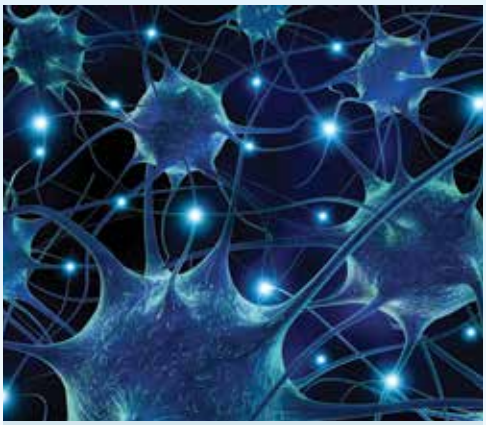
U of T's partnerships with nine of Toronto's world-class hospitals have helped transform the province into a global hub for the growing fields of regenerative and precision medicine. Now, as one of the world's largest and most innovative health research forces, U of T and its health network are helping to pioneer new therapies to improve care and keep patients out of hospitals.

Ever since James Till and Ernest McCulloch discovered stem cells in 1961, U of T has been at the forefront of regenerative medicine – a revolutionary discipline that uses stem cells and tissue engineering to repair damaged cells, organs and tissues.

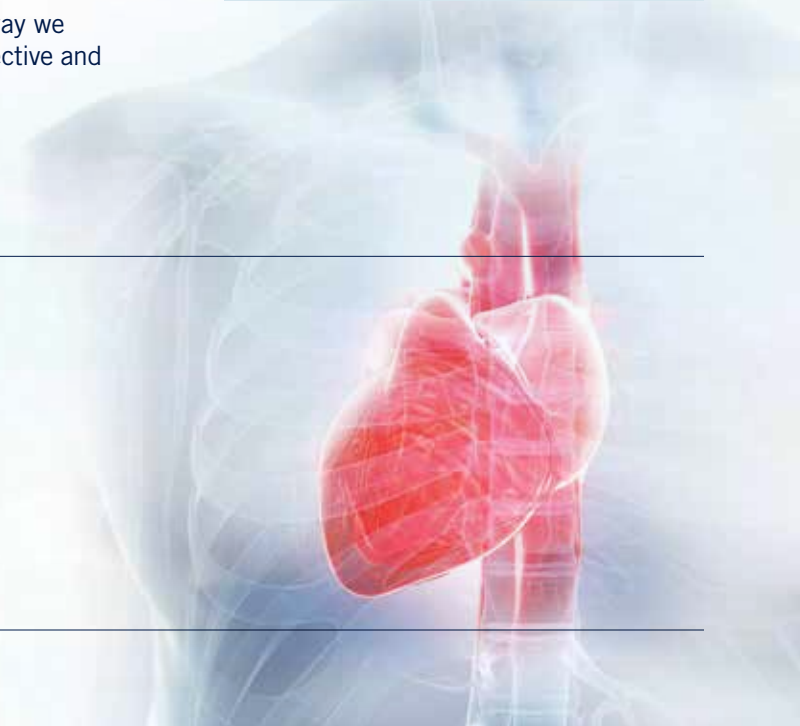
Funded by a $114 million investment from the Government of Canada, Medicine by Design is a talented consortium of more than 110 U of T researchers. They conduct multidisciplinary research in regenerative medicine to achieve breakthroughs with the potential to improve health-care outcomes for millions.

U of T is also a leader in precision medicine, which draws on genetics, nanoscience and other disciplines to target disease at the molecular level and better tailor individual treatments. Our new precision medicine initiative, PRiME, will establish Toronto as a global centre in this emerging field.

Together, these disciplines will transform the way we treat and manage disease by delivering more effective and personalized therapies to patients.



BlueRock Therapeutics is the result of a $225 million investment by Bayer and Versant Ventures to leverage the expertise of top stem cell researchers such as University of Toronto professors Gordon Keller and Michael Laflamme and colleagues from the University Health Network to design new drugs that can treat heart disease, diabetes and neurodegenerative disorders.



Estimated global market for regenerative medicine: US$68 billion by 2020

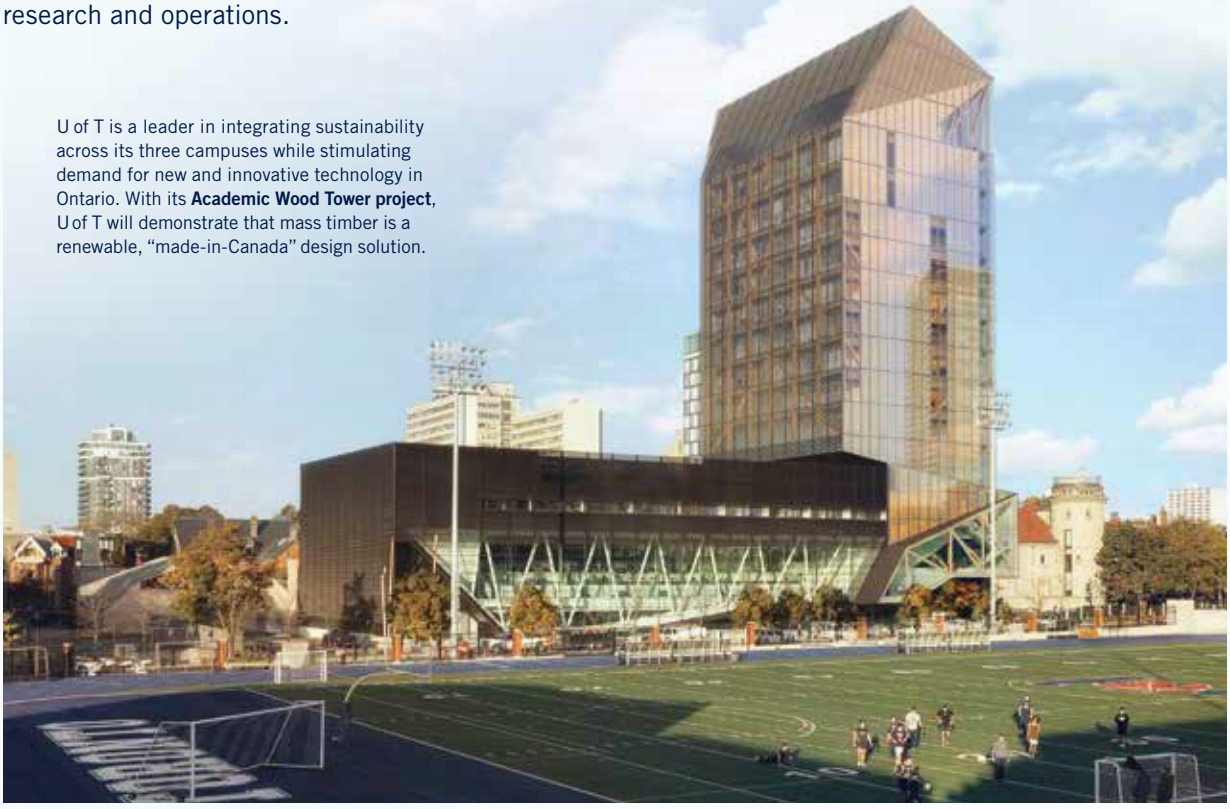
Cleantech & Renewable Energy

For decades, U of T has developed relevant cleantech and renewable energy solutions by partnering with industry across a range of disciplines. Today, more than 500 U of T faculty members work in the sector.

The Centre for Global Engineering and the Institute for Sustainable Energy create technical solutions, provide expertise to clean technology companies in Ontario, and help those in other sectors transition to greener products and processes.

We are a founding member of the U7+ Alliance – established at the invitation of French President Emmanuel Macron – which brings together the world's top universities in an effort to tackle major global challenges. U of T is leading discussions with its partners on how to address environmental challenges such as climate change, biodiversity and energy transition. We are committed to being a world leader in sustainability education, research and operations.

The GTA is home to more than 1,700 cleantech and renewable energy companies



U of T is a leader in integrating sustainability across its three campuses while stimulating demand for new and innovative technology in Ontario. With its **Academic Wood Tower project**, U of T will demonstrate that mass timber is a renewable, "made-in-Canada" design solution.

The University of Toronto is advancing Ontario's new economy by equipping graduates with job-ready skills such as creative problem-solving, entrepreneurial know-how and resilience.

U of T is also a world leader in some of today's most cutting-edge fields, from AI to precision medicine to advanced materials. Our research is laying the groundwork for future industries – even those that have yet to emerge.

We look forward to continuing to contribute to a prosperous future for the province of Ontario.

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