HEALTH CARE AND LIFE SCIENCES

According to **BioTalent Canada**, the bio-health, bio-industrial, agri-bio and bio-energy sectors will require 64,300 new workers through 2029 – including many in research and development and management roles that predominantly require a university education.

As many Ontarians struggle to access a family doctor, Ontario's medical schools are critical to graduating the doctors our health-care system, and Ontarians, so desperately need. By further expanding spaces at medical schools, universities will continue to fuel this vital workforce from family doctors and surgeons to emergency physicians and more.

In the **Ontario Ministry of Finance's Long-Term Report on the Economy, 2024-46**, specialized talent gaps are identified, particularly in executive and management levels, as a risk to the future growth of the life sciences sector in Ontario.

With the expanding role of nurse practitioners (NPs) as primary care providers, especially in remote and rural areas, access to quality health care is becoming easier. Primary Care NPs are educated through two different university programs: the University of Toronto Primary Health Care Global Health Program offered in the Greater Toronto Area; and the Ontario Primary Health Care Nurse Practitioner Program, an efficient and unique advanced nursing education program offered through a partnership of nine Ontario universities. Both programs are giving patients more choices and showing them that NPs are a viable option for primary care services.

A shortage of up-to-date research and wet-lab facilities has limited Ontario's potential to be a leader in health-care innovation and biotech commercialization. A new **University of Ottawa** medical research facility set for 2026, will help grow the medical biotechnology sector in the Ottawa region though health-related research and development, and strengthen Ontario's ability to attract and retain top global talent in health-care innovation.

An immersive and interactive learning environment designed to replicate a variety of real-life situations and procedures for students and professionals from various disciplines, including nursing and social work, has been opened by **Nipissing University**. The George and Helen Vari Simulation Centre features four hospital simulation suites with life-like manikins that can be programmed to recreate a wide range of professional situations for emergency care, pediatric learning, and procedural training in a low-risk, supportive, and controlled environment to help prepare students for professional practice.

Recognizing a gap in access for palliative care and the unique barriers faced by vulnerable people, a **Lakehead University** research project is improving the experiences of those in need of palliative care among Ontario's underserved populations.

A research team from the **University of Waterloo** has developed a new material that shares many of the same traits as bone tissue. Using 3D printers, they are providing a new and innovative treatment option for patients undergoing major skeletal repair and reconstructive surgery. It may also eliminate the need for metal plates, reduce the risk of infection, and increase the chance that the patient's body will successfully accept the graft.