# Techna Institute

2016 Research Fact Sheet

About the Techna Institute for the Advancement of Technology for Health (Techna)

Launched in 2011, Techna's vision is to shorten the time interval from technology discovery to application for the benefit of patients and the health care system. The Techna model combines translational research with clinical, productization, engineering, software development and management expertise.
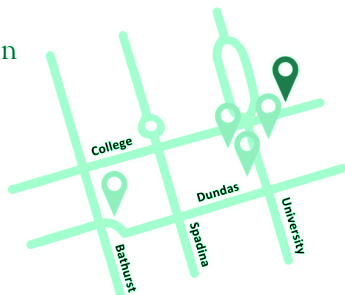
Research Areas

Techna is focused on advancing guided therapeutics, informatics and communications technologies, nanotechnology and radiochemistry, photonics and design, and engineering for health.

Foundations

Techna was launched with the help of The Princess Margaret Cancer Foundation through a $10,000,000 funding commitment. The Toronto General & Western Hospital Foundation also supports selected Techna projects.

Researchers

9 Core Leads
4 Scientists
38 Affiliated Faculty
51 Total Researchers

Trainees

31 Fellows
36 Graduate Students
67 Total Trainees

Support

37 Support Staff

Research Funding

$11,959,743

Research Space

12,484 sq. ft.

Peer-Reviewed Publications

275

Selected Research Advancements

Orphans No Longer Dr. Igor Jurisica developed a new computational resource to predict protein-protein interactions—including those with 'orphans' (proteins with no known interacting partners). *Kotlyar M, et al. Nat Methods. 2015.*
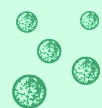
Bursting the Bubble Dr. Gang Zheng created microbubbles that burst into nanoparticles and become trapped in tumours, enabling clinicians to track and target cancer with greater accuracy. *Huynh E, et al. Nat Nanotechnol. 2015.*

Towards Automated Radiotherapy Plans Dr. Thomas Purdie used the latest machine learning technology to create a model to deliver radiation therapy that ensures accuracy and helps conserve resources. *Amit G, et al. Med Phys. 2015.*

Preventing Errors Dr. Patricia Trbovich found that there were relatively few safety checks involved in dispensing oral anticancer drugs—revealing an opportunity to improve patient safety. *Griffin MC, et al. J Oncol Pract. 2015.*