

Arnie Charbonneau Cancer Institute



Celebrating 10 years of meeting
the cancer challenge — **together.**

EVOLUTION OF THE INSTITUTE

2016

Enhanced recovery after surgery (ERAS) guidelines developed for Gynecologic Oncology

Dr. Gregg Nelson, together with an international team of surgeons and anesthesiologists, leads the development of ERAS, a global surgical quality improvement initiative rooted in evidence based perioperative care guidelines, in Gynecologic Oncology.

2014

Southern Alberta Cancer Research Institute becomes the Arnie Charbonneau Cancer Institute

In March, Mr. Arnold "Arnie" J. Charbonneau donates \$20 million to the University to provide funding for research initiatives of the Southern Alberta Cancer Research Institute. In recognition of the gift, the University re-names the institute the "Arnie Charbonneau Cancer Institute".

2017

International Metastatic Renal Cell Carcinoma Database Consortium is launched

Housed in Calgary and led by Dr. Daniel Heng, IMDC is the largest metastatic pan-treatment kidney cancer database in the world.

2019

Molecule found that attracts circulating cells to stay in the lungs and liver

A team led by Drs. Donna Senger and Steve Robbins discover that a protein called dipeptidase 1 is a vascular adhesion molecule in the lungs and liver. They find that targeting dipeptidase 1 can reduce death in a mouse model of sepsis, a fulminant and deadly inflammatory condition that can arise from infections.

2020

University of Calgary and Alberta Health Services sign Memorandum of Understanding, solidifying the partnership between both institutions and cancer research in Calgary.

This document set the stage for greater collaboration between our institutions, including the sharing of infrastructure, highly qualified personnel, and equipment, as well as the leveraging of strategic investments in cancer research.

2020

COVID-19 Global Pandemic: Cancer research lab supports timely COVID testing

Pivoting from clinical-grade molecular profiling of cancers to assisting with critically needed COVID molecular diagnostics, Dr. Faisal Khan analyzes COVID-19 test samples from international travellers at Southern Alberta border crossings in a pilot project to reduce the then-mandatory 14-day quarantine requirement and protect Canadians from COVID-19.

2021

Forzani & MacPhail Colon Cancer Screening Centre (CCSC) uses data science and advanced analytics to understand risk

Through research, led by Drs. Robert Hilsden and Darren Brenner, and clinical care, the CCSC emerges as a leading national facility in colorectal cancer screening, building data repositories that include the collection of biospecimens (blood, urine, normal colon tissue) and information about participants' lifestyles, including medical history, physical activity and diet.

2022

Development of international guidelines to support young cancer survivors

Co-chaired by Dr. Fiona Schulte, a multidisciplinary international task force develops global recommendations for the surveillance of education and employment to support young cancer survivors.

2023

Calgary Cancer Centre is formally named the Arthur J.E. Child Comprehensive Cancer Centre

A transformative \$50 million donation from the Arthur J.E. Child Foundation marks the largest in Alberta Health Services History, and will expedite groundbreaking cancer research and enhance top-tier care at Calgary's new cancer centre. The Arthur Child is slated to open in 2024 and will house over 100,000 square feet of cancer research space.

2023

Riddell Centre for Cancer Immunotherapy opens

A \$25 million donation aims to position Calgary as a global leader in cancer research and care, specifically supporting the development of precision cell and immune therapies for children, adolescents and adults, with a focus on blood cancers and treatment-resistant solid tumours.

2023

Research shows smartphone app can be beneficial to patients in cancer recovery

Setting the stage for a transformative revolution in surgical care, a study led by Drs. Gregg Nelson and Claire Temple-Oberle involving a postoperative follow-up for patients undergoing breast reconstruction and gynecologic oncology surgery using smartphone app-assisted monitoring has seen improved quality of recovery and equal satisfaction with care compared with conventional in-person follow-up.

2015

Canadian Population Attributable Risk of Cancer (ComPARE) study launched

Led by Drs. Christine Friedenreich and Darren Brenner, the ComPARE study provides the most comprehensive, up-to-date estimates of the preventable burden of cancer in Canada. Over the years, ComPARE garners international attention and helps to guide cancer prevention research, including the creation of new policies and interventions aimed at reducing the burden of cancer in Canada.

2014

Robson DNA Science Centre is established

A \$10 million gift from the Dave and Val Robson Fund at The Calgary Foundation founds the Robson DNA Science Centre (RDSC), to investigate how cells detect and repair DNA damage in order to reduce cancer rates and improve treatments for cancer patients.

2017

Evict Radon National Study impacts policy and informs a national proactive radon strategy

Founded in 2014, this national study led by Dr. Aaron Goodarzi aims to raise awareness about the presence of naturally occurring radioactive gas, which is linked to an increased risk of lung cancer. In 2017, based on research conducted by the Evict Radon team, the government of Alberta unanimously passes Bill 209, known as Alberta's Radon Awareness and Testing Act.

2019

Physical activity guidelines developed for cancer survivors

As part of the World Health Organization's 2020 guideline development group on Physical Activity and Sedentary Behaviour, Dr. Christine Friedenreich provides specific input on the guidelines for people with chronic disease and cancer, updating previous WHO recommendations released in 2010.

2020

Made-in-Calgary molecular test for thyroid cancer reaches the clinic

A multidisciplinary team led by Drs. Ralf Paschke and Markus Eszlinger develop a new molecular test, ThyroSPEC™, that improves the care pathway by distinguishing benign from malignant thyroid tumours. Through a partnership with Alberta Precision Laboratories, the new test is adopted as standard-of-care in the diagnosis and management of Alberta patients with indeterminate thyroid tumours.

2020

Researchers uncover the microbiome's role in controlling cancer

Led by Dr. Kathy McCoy, the findings demonstrate strong evidence that gut microbiota can positively affect anti-tumour immunity and improve the effect of immunotherapy with specific microbial therapy.

2020

Molecular underpinnings of certain cancers revealed through large-scale collaboration

Tumour banking efforts by Dr. Oliver Bathe, who directs the University of Calgary Hepatobiliary and Gastrointestinal Tumor Bank, attracts a number of national and international collaborations. His work in mapping the metabolomic features of various hepatobiliary, pancreatic and gastrointestinal tumours leads to the development of diagnostic blood tests for pancreatic and colorectal cancers.

2021

Prairie Cancer Research Consortium joins Marathon of Hope Cancer Centres Network

Stimulated by federal funding provided to the Terry Fox Research Institute, Charbonneau leads a multi-centre application across the prairie provinces of Alberta, Saskatchewan, and Manitoba for designation as a consortium and inclusion in the national MOHCCN.

2022

Daniel Family Foundation Psychosocial Oncology Hub created to advance Calgary's world-leading psychosocial oncology research and care

Calgary philanthropist Patrick Daniel and his family generously donate \$5 million to support a world-class clinician-researcher hub in the field of psychosocial oncology, a cancer specialty that addresses social, psychological, and emotional issues associated with cancer diagnosis, treatment, and survivorship.

2023

First single-patient study of a novel CAR T cell treatment in Canada

A team of researchers and clinicians led by Drs. Doug Mahoney and Mona Shafey from the Riddell Centre for Cancer Immunotherapy successfully invent and develop a novel CAR-T therapy for a rare sarcoma, and launch an innovative single-patient study. This is the first time a CAR T therapy was invented, developed, and manufactured by Canadian scientists and delivered to a patient in Canada.

2023

Clinical insights into multiple myeloma cell behaviour reveal ways to address relapse in immunotherapy

A team of researchers led by Drs. Nizar Bahlis and Paola Neri investigate the resistance of multiple myeloma (MM) cells to immunotherapy. They discover that over time, tumour cells evade immunotherapy by altering their surface targets. This newfound understanding highlights the dynamic nature of MM cells and the need to identify changing targets for effective treatment.

2023

Canadian Cancer Statistics Dashboard is launched

A team of cancer epidemiologists and data scientists led by Drs. Darren Brenner and Tamer Jarada develop and launch this first of its kind, online, user-friendly and interactive platform to provide Canadians with accessible and up-to-date cancer data.