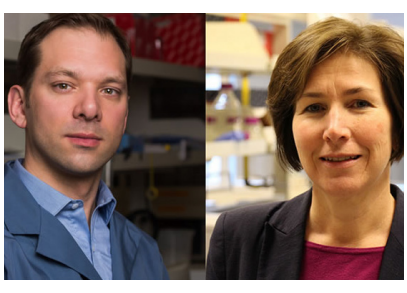
THE TERRY FOX RESEARCH INSTITUTE
L'INSTITUT DE RECHERCHE TERRY FOX

LINKS | THE TERRY FOX RESEARCH INSTITUTE NEWSLETTER Fall 2020

RESEARCH HIGHLIGHTS



New discovery opens door for development of precision medicine treatments for triple-negative breast cancer

A new study by a Toronto-based team revealed that RB1, a protein involved in cell metabolism, is over-expressed in some patients with TNBC. They also found that the expression of this protein could be a biomarker for positive response to a metabolic drug-like compound.

Administering low-dose chemotherapy improves cancer vaccine's effectiveness in mice models

Administering a single low dose of cyclophosphamide a day before vaccination provides a one-two punch that increased the immune system's ability to fight cancer, according to a new paper by TFRI-funded researchers.

Calgary researchers help develop new immunotherapy that could stop the growth of a deadly brain cancer

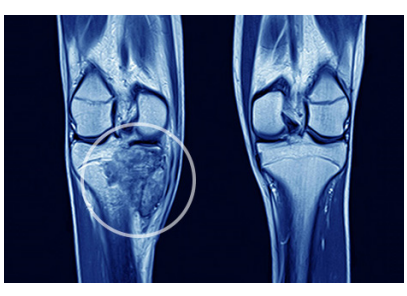
TFRI-funded researchers at the University of Calgary have found that disrupting Interleukin 33 from entering glioblastoma cells, reprograms the immune system to do what it does best — fight the tumour instead of fuelling it.

Study reveals unique mutational pattern in patients with early-onset pancreatic cancer

TFRI-funded researchers have found that patients with early-onset pancreatic cancer have a distinct mutational pattern in a gene called CDKN2A. This discovery sheds light on a worrying trend identified by researchers in recent years: the rise of pancreatic cancer in people age 55 and under.

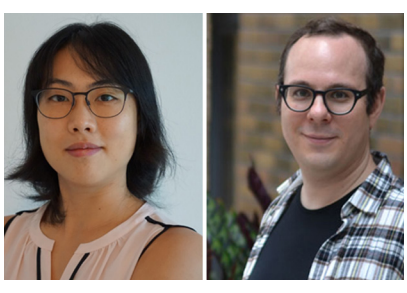
New study reveals why some patients with myelody-splastic syndrome become resistant to treatment

BC-based researchers led by Drs. Aly Karsan and Sergio Martinez-Høyer have found that mutations in two genes – TP53 and RUNX1 – are responsible for driving resistance to lenalidomide in patients in a subset of patients with myelodysplastic syndrome.



Study reveals key genetic mutation that leads to the development of aggressive bone tumour

Quebec-based researchers partly funded by the TFRI have discovered that a single mutation in a gene called Histone 3.3 is responsible for the development of this type of giant cell tumour of the bone (GCT), a locally aggressive bone tumour that affects adults ages 20-40.



Why does sex affect cancer? New study reveals oncogenomic differences between males and females

A new study led by former Terry Fox New Investigator Dr. Paul Boutros reveals key differences in specific genes and in genome-wide phenomena that may explain why cancer progresses differently in males and females.

Team turns to machine learning to predict patient response to therapy, accelerate precision medicine

Dr. Gregory Czarnota and his team are amongst a number of pioneering researchers using machine learning to analyze images of tumours. In doing so, they've been able to make impressive findings that can help determine how cancer patients will react to treatment.

TFRI NEWS

Two New Frontiers Program Project Grant teams receive $10.9 million for research excellence, expansion to new key areas

2020 Terry Fox Run Challenge: Researchers show up virtually and raise nearly $98k for cancer research

Appointment to Order of Canada recognizes Dr. Joseph Connors's contributions to lymphoid cancer

Dedicated Terry Foxer and government relations expert Carolyn Chisholm joins TFRI's Board of Directors

Lung study team's findings on early detection translate into first lung cancer screening program in Canada

New treatment possibilities for young women diagnosed with rare form of ovarian cancer

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