



RESEARCH HIGHLIGHTS



Groundbreaking discovery could help block metastasis in two childhood sarcomas, including osteosarcoma

TFRI-funded researchers have found that a family of drugs known as Class 1 HDAC inhibitors can block sarcoma metastasis in mice by hindering a cancer cell's ability to adapt to several stressors. They now hope to test this finding in clinical trials.



Study provides insight on how aggressive breast cancers get energy to grow

A new study reveals how HER2-positive breast cancer cells hijack metabolic pathways to produce the energy they need to grow and spread.



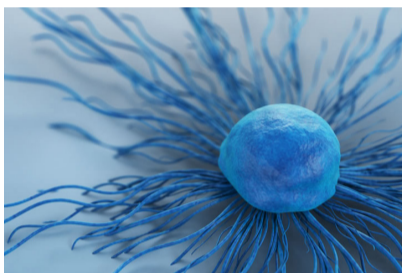
Team identifies four subtypes of pancreatic cancer based on metabolic pathway alterations

Patients with pancreatic ductal adenocarcinoma respond differently to treatment depending on which metabolic pathway alteration they display, according to a new discovery by a team of TFRI-funded researchers.



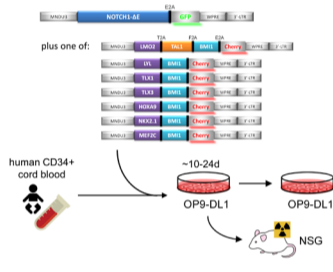
New algorithm can help detect lung cancer up to three years before it forms

An algorithm created by TFRI-funded researchers could help inform the timing of CT scans, increasing the chances of early detection and decreasing the burden that unnecessary scans place on health care systems.



Discovery could help make radio-chemotherapy more effective, less toxic

Downregulating the CXCL12/CXCR4 pathway could stop the influx of myeloid cells into the tumour after radiation, making it more effective and less toxic to patients with cervical cancer, according to TFRI-funded researchers in Toronto.



Newly created synthetic cancer cells help advance understanding of leukemia

TFRI-funded researchers have created synthetic cancer cells that are indistinguishable from T-cell acute lymphoblastic leukemias found in patients, setting the stage to make important discoveries on the ways these cancers grow and spread.



TFRI-funded researchers create tool to help determine how patients will respond to radiation

The open-source computational resource combines genetic profiles of tumours with their response to radiation, allowing researchers to search for genetic biomarkers that predict response to treatment.



Virus helps fight certain lung adenocarcinomas in mice

A study from a former Terry Fox New Investigator found that Coxsackievirus Type B3, a virus commonly associated with hand, foot and mouth disease in children, can significantly reduce the size of lung adenocarcinomas with KRAS mutations in mice.

TFRI NEWS

**From the President's Desk:
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of Hope Cancer Centres
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Toronto turn 'junk' DNA into
gold**

**New discovery reveals how
Hodgkin lymphoma avoids
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**Toronto-based clinical
trial reveals new subtypes
of advanced pancreatic
cancer**

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