

September 2016 (IMP-17) Competition Awarded Impact Grants

Listed in alphabetical order

Angers, Stephane

University of Toronto

Targeting the Wnt pathway in cancer with therapeutic antibodies

To grow and behave normally, cells send and receive many signals to "talk" to each other. When these communication signals go awry, cells can become cancerous. A set of signals called the Wnt pathway is often abnormal in colon cancer, but effective ways to block it are lacking. Dr Angers will develop antibodies to block Wnt signalling and will study how cancer cells respond to the therapy. This research will not only teach us more about how Wnt signals support cancer growth, but may also lead to new, effective drugs for colon cancer.

Huang, Annie

The Hospital for Sick Children

Advancing biology-based therapies for rhabdoid brain tumours

Rhabdoid brain tumours are the most common brain cancers in infants. Usually these aggressive tumours are treated with intense chemotherapy and radiation therapy, which can have serious side effects. Dr Annie Huang found that these brain tumours come in 2 forms, including one that can be cured using chemotherapy alone. She will now develop a test to distinguish between the 2 forms. She will also determine which drugs are the most effective against each form of the cancer in the lab. This will form the foundation for a clinical trial of personalized treatments. This grant is funded in partnership with Brain Canada with the financial support of Health Canada.

Meloche, Sylvain

Université de Montréal

A novel tyrosine kinase oncogenic signalling pathway with therapeutic potential in hepatocellular carcinoma Liver cancer is on the rise in Canada and is associated with poor survival. To develop new treatments, we need to know more about how liver cancer grows. Dr Sylvain Meloche discovered that a protein called YES1 is a key controller of liver cancer growth in the lab. He will now study how it works during liver cancer development, including what signals it sends and responds to and how it gains abnormal activity in cancer. These new biological insights could lead to new treatments to block YES1 and improve survival in liver cancer.

Puts, Maria (Martine)

University of Toronto

Clinical and cost-effectiveness of a comprehensive geriatric assessment in Canadian elders receiving chemotherapy: the 5C study

While cancer can strike at any age, the majority of people affected by cancer are elderly. Older adults often have other health and wellness issues that can affect how they tolerate cancer treatments. Dr Martine Puts will lead a clinical trial to test whether using a specialized medical assessment and treatment planning process designed for older adults benefits elderly cancer patients' quality of life, compared to standard cancer care. The trial will also take into account the cost-effectiveness of using this approach in the healthcare system. This evidence will guide whether this process should be integrated into routine care across Canada.

Wilhelm, Brian

Université de Montréal

Systematic studies of human models of acute myeloid leukemia: establishing a pipeline for novel targeted therapeutics

New treatments are urgently needed for the most aggressive forms of childhood leukemia. Improving how leukemia can be studied in the lab could help scientists discover and develop new therapies faster, with improved chances of success in the clinic. Dr Brian Wilhelm will create new experimental systems that mimic how these cancers grow in children. This will allow researchers to rapidly find new drug targets and develop new treatments to improve the outlook for children with aggressive leukemia. Co-funded by CCS Quebec Division and The Cole Foundation and its funding partners of the Mont Gabriel Summit Research Fund.