Improving glioblastoma survival in the elderly

Dr Normand Laperriere, Canadian Cancer Trials Group, University Health Network, Princess Margaret Cancer Centre; Dr Christopher O’Callaghan (pictured), Canadian Cancer Trials Group, Queen’s University; Dr James Perry, Canadian Cancer Trials Group, Sunnybrook Health Sciences Centre

A pivotal clinical trial led by the Society-supported Canadian Cancer Trials Group found that some older patients with glioblastoma who received chemotherapy with a short course of radiation lived about twice as long as those who only got radiation. Glioblastoma is currently an incurable form of brain cancer. This research is changing how glioblastoma is treated in elderly patients around the world.


Boosting patient survival with screening

Dr David Malkin, The Hospital for Sick Children

People with a rare genetic condition called Li-Fraumeni syndrome have a high risk of cancer. Dr David Malkin and his team developed a method to catch cancers early in these people, which has been adopted all around the world. People who participate in this screening have dramatically higher cancer survival rates.

Reference: Lancet Oncology, September 2016

Targeting resistant cells in childhood leukemia

Dr Trang Hoang, Université de Montréal

Acute lymphoblastic leukemia (ALL) is the most common cancer in children. Dr Trang Hoang and her team found that abnormal pre-ALL stem cells are 10 to 20 times more resistant to chemotherapy than other leukemic cells, which could explain why the cancer comes back in some children despite treatment. They also identified a promising chemical that could wipe out these stem cells.

Reference: Journal of Clinical Investigation, October 2016

Understanding how many tries it takes to quit smoking

Dr Michael Chaiton, University of Toronto

Dr Michael Chaiton and his team studied over a thousand smokers and learned that, on average, it took smokers 30 tries or more to successfully quit smoking. This is valuable information to help understand the challenges faced by smokers trying to quit and improve support services all across the country.

Reference: BMJ Open, June 2016

A promising new strategy to block breast cancer

Dr Jean Marshall, Dalhousie University

Ranitidine (Zantac) is commonly used for heartburn relief. Dr Jean Marshall has discovered that it can also block breast cancer in mice. If it also works in people, it could be quickly repurposed as a safe and affordable breast cancer treatment and prevention tool for some women.

References: OncoImmunology, March 2016; Oncotarget, March 2016
A need to change the stigma of palliative care

Dr Camilla Zimmermann, University Health Network, Princess Margaret Cancer Centre

Many people link palliative care to the end of life and hopelessness. In reality, its purpose is to help patients living with serious illnesses by reducing symptoms, side effects and psychological and spiritual distress. Dr Camilla Zimmermann and her team found that people with advanced cancer find early palliative care very helpful, but say it carries a stigma. This work highlights the need to reframe how palliative care is perceived.

Reference: CMAJ, July 2016

Changing genetics in childhood brain cancer

Dr Michael Taylor, The Hospital for Sick Children

Medulloblastoma is the most common brain cancer in children. If this cancer comes back after treatment, it becomes increasingly difficult to treat. Dr Michael Taylor and an international team discovered that the genetics of medulloblastoma changes dramatically when it returns, which will help find more effective treatments.

Dr Taylor is the recipient of the Brain Tumour Foundation of Canada Impact Grant of the Canadian Cancer Society and Brain Canada.


Extending hormone therapy to keep breast cancer at bay

Dr Karen Gelmon, Canadian Cancer Trials Group, BC Cancer Agency; Dr Wendy Parulekar (pictured), Canadian Cancer Trials Group, Queen's University; Dr Kathleen Pritchard, Canadian Cancer Trials Group, Sunnybrook Odette Cancer Centre

Many post-menopausal women with early breast cancer are treated with a type of hormone therapy called an aromatase inhibitor for 5 years to prevent the cancer from coming back. A clinical trial by the Society-supported Canadian Cancer Trials Group showed that extending this treatment to 10 years reduced the risk of recurrence even more. This research will help women and their doctors make more informed long-term treatment choices.


A new standard in leukemia testing

Dr Sonya Cressman, Canadian Centre for Applied Research in Cancer Control, BC Cancer Agency; Dr Stuart Peacock (pictured), Canadian Centre for Applied Research in Cancer Control, BC Cancer Agency

Diagnosing and treating acute myelogenous leukemia (AML) can be very costly. Dr Stuart Peacock, Dr Sonya Cressman and the team at the Society-supported Canadian Centre for Applied Research in Cancer Control found that a new genetic test to help guide AML treatment was cost effective. This led to British Columbia approving the test as a new standard of care for AML.

Reference: British Journal of Haematology, August 2016

A gel to improve immunotherapy

Dr Réjean Lapointe, Centre de recherche du CHUM

Cancer immunotherapy teaches immune cells to attack tumours, but it only works if enough immune cells are delivered to the cancer site.

Dr Réjean Lapointe and his team developed a gel to target and release cancer-fighting immune cells at just the right spot. Further developments could greatly benefit people with cancer.

Reference: Biomaterials, January 2016