



### Why fund cancer research?

At the Canadian Cancer Society (CCS), we're investing in world-leading cancer research to make a meaningful difference for the 2 in 5 Canadians who will be diagnosed with cancer in their lifetime. And we're making progress. Today, about 64% of Canadians diagnosed with cancer will survive at least 5 years after their diagnosis. This is up from 25% in the 1940s when CCS began funding research. This is a tremendous achievement, but we know that there is more to do.

CCS has a rich legacy of fuelling discoveries that have improved how we prevent, diagnose, treat and live with and beyond cancer. With the support of our donors, in 2021/22, we invested \$44.3 million in promising and impactful cancer research. These investments are enabling our researchers to shape scientific knowledge, program delivery, government policy and clinical practice. And their discoveries are making life better today and transforming the future of cancer forever.



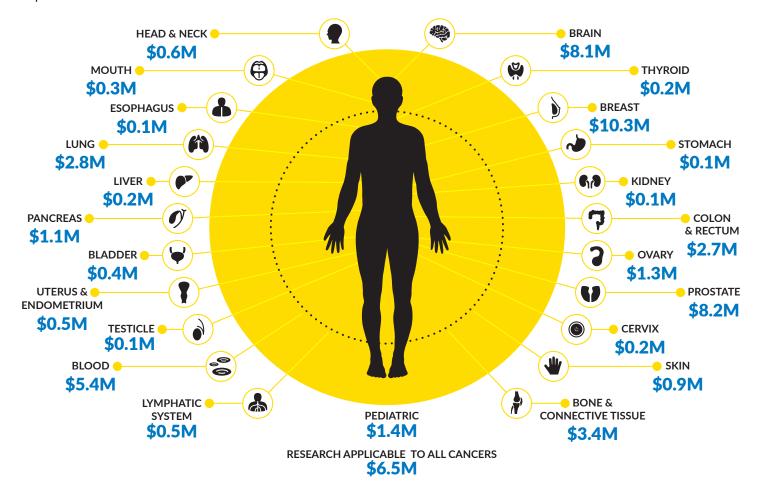
"Funding from CCS means the world to our research team. Knowing that our scientific peers consider the research to be high-quality and worthy of pursuing is incredibly encouraging. More importantly, the donor-supported nature of CCS funding motivates us to make the very best use of

the funds in order to translate our research in the lab into improving the lives of patients and families living with cancer."

Dr Alison Allan, CCS-funded researcher, Western University

#### Our investment

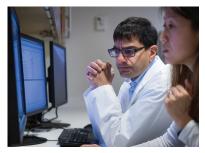
Last year, CCS invested \$44.3 million in exciting new cancer research. These funds supported research across the cancer continuum – from prevention to treatment to life with or beyond cancer. Thanks to our rigorous approach to cancer research funding, CCS has strengthened Canada's research landscape and supported discoveries that have helped us save and improve lives.



#### Research advancements

Cancer isn't a single disease with a single cause and each cancer experience is different, which is why our funded researchers aren't looking for a single cure. As a nationwide organization, CCS supports researchers across Canada whose expertise spans the cancer continuum and all cancer types and disciplines. The following is just a sample of some of the discoveries that are improving the cancer experience thanks to researchers supported by CCS and its donors.

### Reducing pain in people with spinal tumours through targeted radiation therapy Canadian Cancer Trials Group



In a clinical trial developed and led by Dr Arjun Sahgal, deputy chief of radiation oncology at Sunnybrook Health Sciences Centre, researchers from the CCS-funded Canadian Cancer Trials Group (CCTG) tested a more precise method of delivery of radiation therapy treatment for people whose cancer has spread to the spine. Secondary or metastatic spinal tumours are very common in advanced-stage cancers and are especially painful. Currently, only about 10% of patients experience a complete reduction in pain when treated with conventional radiation therapy. The researchers ran a successful trial to test a new targeted treatment (known as Stereotactic Body Radiotherapy) on people with

painful spinal tumours. The team found that with fewer and higher doses of high-precision therapy, more than twice as many patients reported a complete and enduring reduction in pain compared to conventional treatments. This discovery provides an important and new treatment option for patients with cancer-related pain.

# Enhancing quality of life for people receiving radiation therapy for breast cancer Dr Cheryl Duzenli, The BC Cancer Agency



Breast cancer accounts for 25% of all new cancer cases in women in Canada annually. While radiation therapy can decrease the risk of breast cancer recurring and lengthen a person's life after treatment, it can also cause side effects that negatively impact a person's quality of life. With support from CCS, Dr Cheryl Duzenli's team is developing and testing a novel device to support the breast during radiation therapy treatment. The device, created with the combined expertise of a clinical medical physics and engineering design team, positions the breast in a way that reduces painful skin reactions and may decrease the risk of long-term side effects in the lungs and heart without

interfering with the effectiveness of the treatment itself. This research has shown early positive results and holds great promise to enhance the quality of life for people undergoing radiation therapy for breast cancer.

# Improving outcomes with a new test to classify meningiomas Dr Gelareh Zadeh, University Health Network

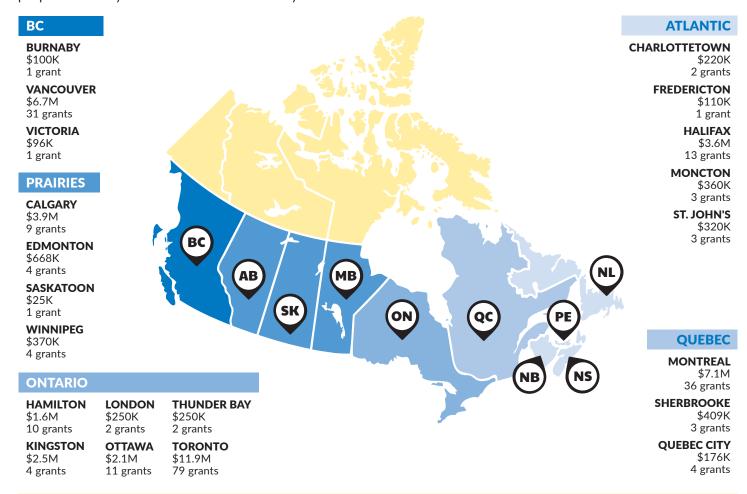


Meningiomas are common brain tumours in adults that grow from the membranes surrounding the brain and spinal cord. Currently, most people with meningiomas receive surgery to remove as much of the tumour as possible. After the operation, a pathologist analyzes the tumour to determine whether radiation therapy is needed. However, this analysis does not provide enough information about how the cancer will behave or respond to further treatment. With funding from CCS, Dr Gelareh Zadeh analyzed genetic data and discovered 4 different molecular classifications of meningiomas. The new classification predicts patient prognosis and risk of recurrence more accurately than before. This work will

enable oncologists to offer more personalized treatment plans and ultimately improve outcomes for people with meningiomas.

#### Our 2021/22 nationwide research investment

With your help, CCS will continue to accelerate research to effect change nationwide, for all people in Canada, in all communities. Thanks to the steadfast support of our donors, our research impact will continue to be far-reaching, nationwide and shaped by people affected by cancer from across the country.





"The day before my 46th birthday, I was told I had metastatic breast cancer. Stage 4 is thought of as a death sentence. Thanks to cancer research, the treatment I received exists, it killed the cancer in my body enabling me to go from inoperable to operable. I now focus my personal fundraising towards metastatic breast cancer research as I know not all are as fortunate as I have been."

Megan Sewell, Survivor

### Thank you

It's because of you that CCS and our funded researchers can give people in Canada hope that profound progress against cancer is possible. Together, we are transforming the future of cancer.

To learn more about our research or to make a donation, visit cancer.ca or call 1-888-939-3333.

