



## Notice on Upcoming RFAs

Please be advised that next spring, TFRI will issue the 2013 RFA for BOTH the New Frontiers Program Project Grants (PPGs) and New Investigators (NI) awards.

Please watch our web site ([www.tfri.ca](http://www.tfri.ca)) for more information.

## The Terry Fox Foundation provides \$13.4 million for world-class, novel research

Two world-class, long-standing and prestigious national cancer teams received a combined \$13.4 million shot in the arm from The Terry Fox Foundation (TFF) on Oct. 11, 2012 to continue their work. They were awarded prestigious New Frontiers Program Project Grants.

The funding will support an Ottawa, Ontario-based team conducting research into oncolytic viruses and a Vancouver, British Columbia-based team exploring why acute forms of leukemia are difficult to treat. The teams will conduct their work from home institutes and laboratories in seven cities and four provinces in Canada.

"We are very pleased today to announce this important investment in human capital provided by two world-class scientific and clinical teams who, through continuing excellence, teamwork and investigation continue to open up new frontiers of knowledge and innovation in important areas of cancer research. There are, and will continue to be, many unsolved mysteries in cancer research which require the attention of brilliant minds if we are to bring new therapeutics and innovations to the clinic. We must continue to fuel this groundbreaking work if we are to overcome this disease," said Dr. Victor Ling, TFRI president and scientific director.

Armed with \$7.5 million\*, the Ottawa-based team led by Dr. John Bell, a senior scientist at the Ottawa Hospital Research Institute and a professor of medicine at the University of Ottawa, will continue their innovative work as part of a trans-Canadian network of clinical and basic scientists who are focused on the application of oncolytic viruses as a way to treat cancer. Dr. Bell's team includes scientists at the BC Cancer Agency (Victoria and Vancouver, BC) and Genome Sciences Centre (Vancouver, BC), McMaster University (Hamilton, Ontario), University Health Network (Toronto, Ontario), Ottawa Hospital Research Institute (Ottawa, Ontario), Children's Hospital of Eastern Ontario (Ottawa, Ontario), McGill University (Montreal, Quebec) and Dalhousie University (Halifax, Nova Scotia).

"Our project aims to use the revolutionary approach of harnessing oncolytic viruses as biotherapeutics and creating effective, targeted anti-cancer agents that cause few, if any, side effects. This funding from The Terry Fox Foundation provides us with the opportunity to



Participants and attendees at the Ottawa announcement of funding for two world class research teams assemble for a photograph following the event at the Ottawa Hospital Research Institute. Back row (l-r): Dr. Keith Humphries and Dr. John Bell, project leaders; Dr. David Stodjil and Dr. Harold Atkins, Bell-project team members; and Mr. Darrell Fox (TFRI). Front row (l-r): Dr. Victor Ling (TFRI), Dr. Duncan Stewart (OHRI), cancer survivor and guest speaker Ms. Aimee Zeglinsky-Spinney, and Dr. Kelley Parato (Bell project team manager). Photo: Peter Thornton, University of Ottawa

advance our basic science discoveries from the laboratory to the clinic, where they can be tested and developed for the treatment of cancer patients," said Dr. Bell.

The second team, based at Vancouver's BC Cancer Agency in British Columbia, will receive \$5.9 million over five years to find new ways to treat aggressive forms of leukemia by rapidly creating and using laboratory-built models that mimic human acute leukemias.

"Our program harnesses the power of a research team whose expertise combines normal and leukemic stem cell biology, clinical knowledge and a range of sophisticated technologies to obtain cellular, molecular and genetic features of leukemic cells. A hallmark of our program is to exploit novel methods to reproducibly engineer in the laboratory models of aggressive leukemias directly from normal human blood forming cells. Such models open a pathway to resolve, with extremely high resolution, the differences between normal and leukemic blood stems cells and, ultimately, to identify novel therapeutic targets," said the program project grant lead Dr. Keith Humphries, a distinguished scientist with the Agency's Terry Fox Laboratory and a professor of medicine at the University of British Columbia.

\* CIHR is contributing a total of \$50,000 to the COVCo project.

## TFRI's 4th Annual Scientific Meeting May 8 – 11, 2013 | Ottawa, Ontario

Please mark your calendars.

Visit [www.tfri.ca](http://www.tfri.ca) for our preliminary agenda and more details

Please note: Opening reception to be held 6 p.m., May 8th. A number of project teams will be meeting that same day in advance of the ASM. The formal program begins the morning of May 9th.

NOTICE

# Dream team tackles deadly brain cancer with **\$8.2 million**

They are a “dream team” comprised of some of the country’s top minds in cancer research. They are harnessing their talent and technologies to find new treatments for the most common and deadly form of brain cancer among adults with an \$8.2 million investment from the Terry Fox Research Institute (TFRI), the Terry Fox Foundation (TFF), Alberta Innovates–Health Solutions, the Alberta Cancer Foundation, Genome Canada, Genome BC and the BC Cancer Foundation. The funding was announced at the University of Calgary in June 2012. Researchers there will lead the national initiative and receive \$4.1 million to fuel their research.

The investment, one of the largest ever made in Canada to research glioblastoma, gives hope to the approximately 2,600 Canadians annually who face a grim future when they are diagnosed with the disease. With current treatment, survival is about 15 months.

**“We have a chance to make a difference and we are hopeful that we will. – DR. GREG CAIRCROSS”**

The Terry Fox Research Institute, The Terry Fox Foundation and our partners in Alberta and across Canada are providing a total of \$8.2 million over five years to this pan-Canadian collaboration of scientists and clinician-scientists from Alberta, British Columbia and Ontario. TFRI and TFF are contributing nearly \$3.1 million to the project with Alberta Innovates-Health Solutions (AIHS) providing \$2 million, Alberta Cancer Foundation providing \$1.9 million, and Genome Canada investing \$612,000. Genome BC is contributing \$306,000 and The BC Cancer Foundation is investing \$250,000.

For over three decades, glioblastoma treatment has remained largely unchanged. The research team is focussing on developing promising new drugs. Currently there is no drug development pipeline that brings potentially useful new agents to the clinic for testing against glioblastoma. This team will help to address that gap and projects that the first of the new drugs discovered from this research will be ready for clinical trials in two to four years.

Dr. Gregory Cairncross, head of the department of clinical neurosciences at the University of Calgary and holder of the Alberta Cancer Foundation Chair in Brain Tumor Research, will lead the project. “There is nothing more personal than your brain. Although we’ve made some progress in treating glioblastoma, it has not been dramatic. This is a disease where survival is measured in months,” said Dr. Cairncross. “Our team integrates researchers and centres in Canada with different and complementary strengths and we’ve come together to focus on the illness itself. We don’t see any other way forward other than through research because there seems to be no way to prevent glioblastoma. We have a chance to make a difference and we are hopeful that we will.”

The Alberta team involved in the project, led by co-investigators Samuel Weiss, PhD (University of Calgary’s Hotchkiss Brain Institute) and Dr. Stephen Robbins, PhD (University of Calgary’s Southern

## PARTICIPATING CITIES AND RESEARCHERS

- In Vancouver, Dr. Marco Marra will lead the genome analyses with co-investigators at the BC Cancer Agency’s Genome Sciences Centre.
- In Ontario, Dr. David Kaplan will oversee the laboratory work where thousands of potentially helpful drugs will be screened for activity against BTICs from Calgary. Also in Ontario, Dr. Warren Mason will lead the human clinical trials in association with the NCIC Clinical Trials Group and clinical colleagues at the Tom Baker Cancer Centre and BC Cancer Agency. The British Columbia and Ontario teams will share the remainder of the funding.

## PARTICIPATING PARTNERS

Genome Alberta, The University of British Columbia, the BC Cancer Agency, SickKids (Toronto), Mount Sinai Hospital (Toronto) the University Health Network (Toronto), the Ontario Institute for Cancer Research, The University of Toronto, and the NCIC-Clinical Trials Group.

Alberta Cancer Research Institute and Clark Smith Brain Tumor Centre) and their colleagues, are focused on developing and providing laboratory cell models that closely resemble, from a molecular and microscopic perspective, glioblastoma tumours. Using tumours obtained from patients, the team is successfully growing brain tumour initiating cells (BTICs) in the laboratory that retain the genetic makeup of their cancer, thereby setting the stage for this new TFRI program.

Researchers in British Columbia and Ontario will analyse models of glioblastoma from the Alberta group to determine their molecular genetic composition and to target compounds that might help control tumour growth and development. The goal is to identify new drugs to test in the clinic on different brain tumour subtypes, advancing toward personalizing treatment for this form of cancer.

## More treatment options needed

“I think you can see why this research announcement is extremely timely for me and any others who are survivors to date,” Brad Virginillo, 50, told the attendees at the Calgary announcement. “We are running out of options to maintain any reasonable quality of life.”

The Calgary engineer, a six-year survivor of glioblastoma, has undergone brain surgery three times since he was diagnosed with a massive tumour in 2005. The surgeon who conducted his initial surgery removed a golf-ball-sized tumour that swelled to the size of a grapefruit after removal. Today, Brad is taking two chemotherapy drugs and continues to defy the odds. He knows his oncologist and others need more “tools” in their toolkits to help patients like him survive longer and enjoy an improved quality of life.

The pan-Canadian team hopes to have a couple of new drugs to test in the clinic on different brain tumour subtypes in two to four years. Longer term, the goal is a drug development pipeline to provide more treatment options in the future.



Mr. Brad Virginillo(t) toured Dr. Greg Cairncross’s laboratory to learn more about the TFRI project. Photo: Bryce Perrault, University of Calgary



Participating scientists and speakers at the launch of TFRI's Canadian Prostate Cancer Biomarker Network (CPCBN) in Montreal in July 2012. From left to right: Dr. Fred Saad, Dr. Laurence Klotz, Dr. Mario Chevrete, Dr. Robin Harkness, Dr. Anne-Marie Mes-Masson, Mr. Darrell Fox, Mr. Patrick Lamarche, Dr. Robert Bristow, Dr. Simone Chevalier, Dr. Jacques Lapointe, Dr. Veronique Ouellet and Dr. Jacques Turgeon.

Photo: Stephane Lord, Multimedia Production, CHUM

## New network receives close to \$4 million to find better tools to treat prostate cancer

Prostate cancer is the most commonly diagnosed cancer and the third-leading cause of cancer-related death in Canadian men. Screening has enabled earlier diagnosis of prostate cancer, but with three out of four men actually diagnosed with a non-lethal form, should they all undergo the same treatment? A new pan-Canadian network of prostate cancer researchers formed by the Terry Fox Research Institute aims to address this question with approximately \$4-million provided by the Terry Fox Foundation and the Canadian Partnership Against Cancer.

TFRI's Canadian Prostate Cancer Biomarker Network (CPCBN) brings together top scientists and clinicians at leading prostate cancer care and research centres in Quebec, Ontario, Manitoba and British Columbia to take aim at answering this question with the goal of providing better tools – including new and more effective biomarkers – to treat and manage the disease. Over the next four years, the group will work to identify new ways to determine what forms of prostate cancer require immediate treatment and which don't, as well as how to better predict which patients, following treatment (surgery or radiation therapy), are at risk of their cancer progressing.

**If this study goes as we hope it will, its impact will be profound – reducing recurrence and improving quality of life for men who have the disease. – DR. FRED SAAD**

Total funding for the network is \$3,995,326, with the Partnership having provided \$550,000.

"We are extremely pleased to create this important biomarker research network and to provide a total of \$3.5 million to address an important clinical question that both doctors who treat the disease and men who are diagnosed with it must consider," said Mr. Darrell Fox, TFRI senior advisor. "Having more tools at their disposal for decision making will help clinicians to better determine what treatment is best for a patient's particular prostate cancer."

"This is one of several projects the Partnership has launched with the Terry Fox Research Institute with the practical goal of identifying emerging technologies that can improve the early detection and treatment of cancer and lead to better outcomes," said Dr. Robin Harkness, research specialist with the Canadian Partnership Against Cancer, a national organization funded by Health Canada to lead the implementation of a co-ordinated cancer strategy, and executive director of the Canadian Cancer Research Alliance.

"This new collaborative team has leadership and a track record across the research and clinical spectrums in understanding and treating prostate cancer and, collectively, they have excellent access to tissue samples and serum that are important to conducting studies to find new and effective biomarkers in this area. We appreciate the support of both the Terry Fox Foundation and the Canadian Partnership Against Cancer in funding this impressive network and the important work they are undertaking to improve care for patients," said Dr. Victor Ling, TFRI President and Scientific Director.

Dr. Fred Saad, professor and chief of urology at the CHUM and director of prostate cancer research at the Montreal Cancer Institute-CRCHUM, leads the study. "We're excited about the opportunity to work together to identify significant biomarker combinations to be used with existing clinical tools to allow clinicians to better assess the risk of tumour progression of early-stage tumours before and after treatment. If this study goes as we hope it will, its impact will be profound – reducing recurrence and improving quality of life for men who have the disease – as well as bringing economic and societal benefits through the more efficient and effective use of health resources."

### ABOUT THIS PROJECT

The investigators will contribute to the studies in various ways, including providing clinical samples and data from patients having undergone surgery and radiotherapy, and also patients who have been put on active surveillance. This network will also be combining research expertise in biomarker and genetic profiling of cancers that will greatly increase the speed at which results will be obtained.

The project will run until March 2016.

The network has developed a knowledge translation component to reach out to interested partners and to engage the medical community in the implementation of their findings and including a biomarker-driven approach for diagnosing and managing the disease as an element in clinical decision making.

### PARTNER INSTITUTIONS

McGill University, McGill University Health Centre (MUHC), the Research Institute of the MUHC and Université Laval in Quebec, Kingston General Hospital (Queen's University), Sunnybrook Health Sciences Centre and Princess Margaret Hospital in Ontario, and the University of British Columbia, the Vancouver Prostate Centre and the Vancouver Coastal Health Research Institute in BC, and the Cancer Care Manitoba in Winnipeg.

## Top honours for three



Left to right: Drs. Ilkow, Knight and Ranger.

A key highlight at TFRI's third annual scientific meeting (Victoria, BC, May 10-12, 2012) was the presentation of 77 posters from trainees who are working on Terry Fox-funded research in partner research laboratories across the country. Taking home top honours from this year's poster competition were McGill University's Goodman Cancer Research Centre trainees Dr. Jennifer Knight (1st place) and Dr. Jill Ranger (2nd), along with Dr. Carolina Ilkow (3rd place) of the Ontario Hospital Research Institute. Dr. Ilkow is a PDF in Dr. John Bell's lab while Dr. Knight is a PDF supervised by Dr. Morag Park and Dr. Ranger is a graduate student supervised by Dr. William Muller. All three are affiliated with TFF-funded PPGs. Dr. Knight's poster was titled "Met synergizes with P53 loss to induce mammary tumours that possess features of claudin-low breast cancer."



### Governor General named patron of Terry Fox Foundation

His Excellency The Right Honourable David Johnston (centre), Governor General of Canada, participated in the Terry Fox Run in Ottawa in September 2012 as the newly announced patron of the Foundation. With him to celebrate the event were TFFI president and scientific director Dr. Victor Ling and special advisor Mr. Darrell Fox. The Governor General is a strong supporter of Terry Fox, citing the young Canadian hero's contribution to the country and his generosity as an inspiration for all Canadians. Photo credit: James Park/Carleton University.

## Terry's CAUSE on Campus launched

"At 18, he was a university student. At 19, he was a cancer patient. At 21, he was a hero."

Those words helped to launch a new campaign to honour Terry Fox and raise funds for cancer research to be invested by TFRI. This fall, the Terry Fox Foundation (TFF) and TFRI, in partnership with a founding group of universities, launched Terry's CAUSE on Campus. CAUSE stands for College and University Student Engagement.

Founding institutions participating in the inaugural launch were: Carleton University, Dalhousie University, McMaster University, Memorial University of Newfoundland, Queen's University, Simon Fraser University, the University of Calgary, and the University of Toronto.

"We are thrilled with the enthusiasm and support that students, organizers and leaders at these institutions and others have shown for Terry's CAUSE on Campus. Terry began planning and training for his Marathon of Hope while he was a first-year university student. He would be pleased and honoured to know that today students across Canada continue to be inspired by him and are joining together to support his dream – our dream – of ending cancer," said Mr. Darrell Fox, TFRI special advisor. TFRI trainees Megan Nelles and Jocelyn Stewart were among the organizers at the University of Toronto.



TFRI is an institute without walls linking the capabilities of over 50 leading cancer care and cancer research institutes and universities organized through six regional nodes.

### TFRI Executive & Node Leaders

#### President and Scientific Director:

Dr. Victor Ling, O.C., O.B.C., F.R.S.C., PhD

**Alberta:** Dr. Carol Cass

**Atlantic:** Dr. Michael Johnston

**British Columbia:** Dr. Marco Marra

**Ontario:** Dr. Robert Rottapel

**Prairies:** Dr. James Davie

**Quebec:** Dr. Anne-Marie Mes-Masson

**Chair, Scientific Advisory Committee:**

Dr. Phil Branton

**TFRI Board Member:** Dr. Christopher Paige

**Senior Advisor:** Dr. Simon Sutcliffe



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