

7TH ANNUAL / 7E RENCONTRE

MAY 12-13 / MAI 2016

scientifique

MEETING / ANNUELLE

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VANCOUVER, BRITISH COLUMBIA
VANCOUVER, COLOMBIE-BRITANNIQUE

Understanding Cancer Over Time & Space

*Comprendre le cancer au
fil du temps et de l'espace*



The Terry Fox Research Institute
L'Institut de recherche Terry Fox

PROGRAM
PROGRAMME

WELCOME

Welcome to Vancouver, British Columbia!

Welcome to Vancouver! We return this year to the city where TFRI is headquartered, and where our inaugural Annual Scientific Meeting was held seven years ago, following past conferences in St. John's, Montreal and Ottawa. The theme this year is "Understanding Cancer Over Time and Space," and our 2016 Scientific Organizing Committee has created five highly topical plenaries with complimentary breakouts that coalesce around this theme: cancer metabolism; biomarkers and disease monitoring; genome analysis and epigenetics; treatment dynamics and the microenvironment to the macroenvironment.

We hope these sessions and the discussions they generate over the next two days will broaden and enhance our mutual understanding of cancer within the thematic context of time and space. Further, we hope that the experts who are here with us today to share their knowledge and findings inspire new innovation and collaboration among us all.

Our Organizing Committee has also focused on increasing opportunities for trainees to participate at the meeting and interact with more experienced researchers. To this end, over 60 trainees will present short rapid-fire talks in small groups as well as present posters. We hope you will join us at these small group talks, held Thursday afternoon. Our attended poster session – featuring 87 presenters, including non-trainee submissions – will follow.

On Friday, we'll welcome Dr. Carlos Caldas from the University of Cambridge, UK for a keynote talk on tumour heterogeneity in breast cancer. Dr. Caldas is a leader in functional genomics of breast cancer and its biological and clinical implications.

Your presence and participation here today is important to us. We hope your time here will be rewarding and energizing.

Bienvenue à Vancouver!

Bienvenue à Vancouver! Pour faire suite aux conférences qui se sont déroulées à Saint-Jean, Montréal et Ottawa, nous revenons cette année à la ville où l'IRTF a son siège social et où notre première réunion scientifique annuelle a eu lieu il y a sept ans. Cette année, le thème est «La compréhension du cancer au fil du temps et de l'espace». Notre comité organisateur scientifique 2016 a créé cinq séances plénières de grande actualité avec des séances complémentaires qui fusionnent autour de ce thème: Le métabolisme du cancer; Les biomarqueurs et la surveillance des maladies; L'analyse et l'épigénétique du génome; Les dynamiques du traitement ainsi que Du microenvironnement au macroenvironnement.

Nous souhaitons que ces séances et les discussions qu'elles généreront au cours des deux prochains jours permettront d'élargir et d'améliorer notre compréhension mutuelle du cancer dans le cadre thématique du temps et de l'espace. En outre, nous espérons que les experts qui sont ici avec nous aujourd'hui pour partager leurs connaissances et leurs résultats inspirent l'innovation et la collaboration entre nous tous.

Notre comité organisateur a également mis l'accent sur l'accroissement des possibilités pour les stagiaires de participer à la rencontre et d'interagir avec des chercheurs plus expérimentés. À cette fin, plus de 60 stagiaires présenteront de courtes discussions en rafale en petits groupes, ainsi que la séance d'affiches habituelle. Nous espérons que vous vous joindrez à nous à ces petites discussions de groupe qui se tiendront jeudi après-midi. Notre séance d'affiches suivra, avec 87 présentateurs, y compris les présentations de responsables de projet.

Vendredi, nous accueillerons Dr Carlos Caldas de l'Université de Cambridge, au Royaume-Uni à titre d'orateur principal sur l'hétérogénéité de la tumeur dans le cancer du sein. Dr Caldas est un chef de file en génomique fonctionnelle du cancer du sein et de ses implications biologiques et cliniques.

Votre présence et votre participation aujourd'hui sont importantes pour nous. Nous espérons que cette réunion sera enrichissante et stimulante.



Dr Marco Marra, OBC, PhD, FRS(C), FCAHS, DSc (Hon), LLD (Hon)

**TFRI BC Node Leader and Chair, 7th TFRI Annual Scientific Meeting
Director & Distinguished Scientist, Genome Sciences Centre, BC Cancer Agency
Professor & Head, Medical Genetics, University of British Columbia
UBC Canada Research Chair in Genome Science**

Responsable du pôle C-B et président de la 7e rencontre scientifique annuelle de l'IRTF
Directeur & scientifique émérite, Genome Sciences Centre, BC Cancer Agency
Professeur & chef de département, Medical Genetics, University of British Columbia
UBC Canada Research Chair in Genome Science

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Statement On Respect For Confidentiality Of Unpublished Material

The Institute has invited everyone attending this meeting because of their contribution, or potential for contribution, to the work of our research community. In building our community, we are committed to respecting the confidentiality of ideas and data that is unpublished at this meeting. We request and require that all registrants refrain from recording such confidential information, and do not discuss such information with colleagues outside of this meeting. It is only in this way that we will collectively build the trust and respect that is necessary for effective collaborations. We appreciate your respect of and compliance with this important request.

TFRI 7th Annual Scientific Meeting

Scientific Organizing Committee

Marco Marra, Vancouver (Chair)
Michael Johnston, Halifax (Past Chair)

Cheryl Arrowsmith, Toronto
Gerald Batist, Montreal
Stephen Herst, Vancouver
David Huntsman, Vancouver
Victor Ling, Vancouver
Ryan Morin, Vancouver
Brad Nelson, Victoria
Michael Pollak, Montreal
Trevor Pugh, Toronto
Steve Robbins, Calgary
Julie St-Pierre, Montreal
Gelareh Zadeh, Toronto

Abstract and Poster Committee

Stephen Herst, Vancouver
David Huntsman, Vancouver
Steve Robbins, Calgary
Julie St-Pierre, Montreal
Gelareh Zadeh, Toronto

TFRI Headquarters Support

Kelly Curwin
Marlene Manson
Catherine Moloney
Cecile Verrier

BC Support

Anja Mottok
Robyn Roscoe

AGENDA: Wednesday, May 11

TIME	DURATION	EVENT	LOCATION
7:00 – 9:00 pm	120 min	Early Registration	Jr. Ballroom A&B, 3 rd Floor, North Tower
7:00 – 9:00 pm	120 min	Poster Set Up	Jr. and Pavilion Ballroom Foyers, Pavilion A&B

Some closed project team meetings

AGENDA: Thursday, May 12

TIME	DURATION	EVENT	LOCATION
7:30 – 10:00 am	150 min	Registration & Poster Set Up	Jr. and Pavilion Ballroom Foyers, Pavilion A&B
7:30 – 9:00 am	90 min	Breakfast	Jr. Ballroom C&D
9:00 – 9:15 am	15 min	Opening Remarks: Dr. Marco Marra, BC Node Leader, BC Cancer Agency/UBC and Dr. Victor Ling, TFRI President and Scientific Director, <i>Dr. Malcolm Moore, CEO, BC Cancer Agency, Mr. Britt Andersen, Executive Director, TFF</i>	Pavilion Ballroom C&D
9:15 – 10:45 am	90 min	Plenary I: Cancer Metabolism Co-chairs: <i>Drs. Michael Pollak and Julie St-Pierre, McGill University</i> Dr. Michael Pollak, McGill University: <i>“Cancer Metabolism: From Lab to Clinic”</i> Dr. Michael Moran, The Hospital for Sick Children/ U of T: <i>“Integrated Omics Analysis of Primary and PDX Lung Tumours Implicates New Drivers Involved in Cancer Metabolism”</i> Dr. Poul Sorensen, BC Cancer Agency/UBC: <i>“Regulation of Metabolism in Tumour Cells by Selective mRNA Translation”</i> Dr. Vincent Giguère, McGill University: <i>“Resetting Cellular Metabolism to Stop the Cancer Engine”</i>	Pavilion Ballroom C&D
10:45 – 11:15 am	30 min	Break Final Installation of Posters	Jr. and Pavilion Ballroom Foyers, Pavilion A&B
11:15 am – 12:45 pm	90 min	Plenary II: Biomarkers, Disease Monitoring, and Response to Treatment Co-chairs: <i>Dr. Ryan Morin, BC Cancer Agency/SFU</i> Dr. Ryan Brinkman, BC Cancer Agency/ UBC: <i>“Automated Flow Cytometry Data Analysis for Clinical Diagnosis and Biomarker Discovery”</i> Dr. Ryan Morin, BC Cancer Agency/SFU: <i>“Studying Clonal Evolution and Diversity in non-Hodgkin Lymphomas Using Liquid Biopsies and Single-Cell Sequencing”</i> Dr. François Bénard, BC Cancer Agency/UBC: <i>“Molecular Imaging to Predict and Monitor Cancer Biomarkers In Vivo”</i> Dr. Torsten Nielsen, BC Cancer Agency/UBC: <i>“The Road From Discovery to FDA-Cleared Clinical Test: The PAM50 Story”</i>	Pavilion Ballroom C&D
12:45 – 1:45 pm	60 min	Lunch	Jr. Ballroom C&D
1:45 – 2:45 pm	60 min	Plenaries I & II Breakouts	Plenary I - Parksville Plenary II - Jr. A&B
2:45 – 3:15 pm	30 min	Break	Pavilion Ballroom Foyer
3:15 – 4:45 pm	90 min	Trainee Rapid-Fire Poster Talks (Small Groups) View Rapid-Fire Talks Groups, Presenters, Posters and Room Assignments on pages 16-20	Orca, Finback, Beluga, Parksville, Jr. A&B, Port Alberni <i>As assigned</i>
4:45 – 6:15 pm	90 min	Attended Poster Session and Reception (first half even; second half odd)	Jr. Ballroom Foyer & Pavilion Ballroom Foyer

AGENDA: Friday, May 13

TIME	DURATION	EVENT	LOCATION
6:15 – 8:00 am	105 min	TERRY FOX EARLY MORNING RUN	MEET IN LOBBY, NORTH TOWER
7:00 – 8:30 am	90 min	Breakfast	Jr. Ballroom C&D
8:30 – 10:00 am	90 min	<p>Plenary III: Genome Analysis/Epigenomics</p> <p>Co-chairs: Drs. Trevor Pugh and Cheryl Arrowsmith, PMCC and U of T</p> <p>Dr. Daniel de Carvalho, Princess Margaret Cancer Centre/U of T: <i>“Towards Using Epigenetic Therapy to Improve Cancer Immunotherapy”</i></p> <p>Dr. Martin Hirst, BC Cancer Agency/UBC: <i>“Vitamin C-Induced Methylome Remodeling in HOXA9-Immortalized IDH1 R132H Bone Marrow Cells”</i></p> <p>Dr. Nada Jabado, Montreal Children’s Hospital and McGill University Health Centre Research Institute: <i>“Oncohistones: Where Are We At?”</i></p> <p>Dr. Cheryl Arrowsmith, Princess Margaret Cancer Centre/U of T: <i>“Probing for Epigenetic Vulnerabilities in Cancer”</i></p>	Pavilion Ballroom C&D
10:00 – 10:30 am	30 min	Break	Pavilion Ballroom Foyer
10:30 – 11:30 am	60 min	<p>Keynote Speaker:</p> <p>Dr. Carlos Caldas, University of Cambridge, UK</p>	Pavilion Ballroom C&D
11:30 – 11:45 am	15 min	GROUP PHOTOGRAPH	OUTSIDE (weather permitting)
11:45am – 1:00 pm	75 min	Lunch	Jr. Ballroom C&D
1:00 – 2:30 pm	90 min	<p>Plenary IV: Dynamic Therapeutics in Cancer</p> <p>Co-chairs: Drs. Gerald Batist, McGill University and David Malkin, The Hospital for Sick Children/ U of T</p> <p>Speakers:</p> <p>Dr. David Malkin, SickKids: <i>“The TFRI PROFYLE Initiative: A Window Into the 20% Solution for Childhood Cancer”</i></p> <p>Dr. Kim Chi, BC Cancer Agency/Vancouver Prostate Centre/UBC: <i>“Informing the Uninformed: Rationale Treatment Selection and Sequencing for Prostate Cancer ”</i></p> <p>Dr. Wilson Miller, Jewish General Hospital, McGill University: <i>“Dynamics of Targeted and Immunotherapies in Melanoma: Real-World Examples”</i></p> <p>Dr. Uri Tabori, The Hospital for Sick Children/UBC: <i>“Hypermutation and Neo-antigen Formation Predict Response to Immune Checkpoint Inhibition in Childhood Biallelic Mismatch Repair Deficient Cancers”</i></p>	Pavilion Ballroom C&D
2:30 – 3:00 pm	30 min	Break	Pavilion Ballroom Foyer

AGENDA: Friday, May 13

TIME	DURATION	EVENT	LOCATION
3:00 – 4:30 pm	90 min	<p>Plenary V: Microenvironment to Macroenvironment</p> <p>Co-chairs: Drs. Brad Nelson, BC Cancer Agency Deeley Research Centre/UBC and Gelareh Zadeh, University Health Network</p> <p>Dr. Paul Boutros, Ontario Institute for Cancer Research: <i>“The Intra- and Inter-Tumoural Heterogeneity of Prostate Cancer”</i></p> <p>Dr. John Stagg, Centre de Recherche du Centre Hospitalier de l’Université de Montréal: <i>“Immunosuppressive Pathways and the Role of Environmental Factors on Tumour Immunity”</i></p> <p>Dr. Gelareh Zadeh, University Health Network: <i>“The Role of Bone Marrow- Derived Cells in the Brain Tumour Microenvironment”</i></p> <p>Dr. Rebecca Auer, Ottawa Hospital Research Institute: <i>“Arming Oncolytic Viruses to Optimize and Exploit the Tumour Microenvironment for Therapy”</i></p>	Pavilion Ballroom C&D
4:30 – 5:30 pm	60 min	Plenary III, IV and V Breakouts	<p>Plenary III - Jr. A&B</p> <p>Plenary IV- Finback</p> <p>Plenary V - Parksville</p>
5:30 – 6:30pm	60 min	CLOSING RECEPTION	Pavilion Ballroom Foyer and Jr. Ballroom Foyer

Cancer and Metabolism

9:15-10:45 am / Pavilion Ballroom C&D / **Session Chairs: Michael Pollak, and Julie St-Pierre, McGill University**

Currently there are intense efforts put forward by the international scientific community to reveal the metabolic signature of various cancers. The consensus emerging is that while many cancers are Warburg-like, others are more dependent on mitochondrial metabolism, suggesting that the metabolic regulatory network of cancer cells is connected to their own genetic makeup. In this session, we will discuss the molecular mechanisms underpinning the metabolic adaptations of cancer cells, and the importance of these adaptations in fueling cancer growth. These results will be presented in the context that multiple drugs targeting metabolism are currently being investigated for repurposing in cancer treatment, and that numerous others are currently in clinical trials.

9:20 am **Cancer Metabolism: From Lab to Clinic**

Michael Pollak, McGill University and Segal Cancer Centre of Jewish General Hospital

Research into cancer metabolism has accelerated and developed into a broad field of investigation over the last decade. One central aspect relates to energy balance, both at the whole organism and cellular levels. Mechanisms underlying the classic observation of profound inhibition of chemical carcinogenesis by caloric restriction will be reviewed. The rationale and early results of clinical trials of therapies that endeavour to limit oxidative phosphorylation will be reviewed to provide an example of recent translational research in cancer metabolism.

9:40 am **Integrated Omics Analysis of Primary and PDX Lung Tumours Implicates New Drivers Involved in Cancer Metabolism**

Michael Moran, The Hospital for Sick Children and U of T

Unbiased integrated omics analysis of primary lung tumours uncovered signatures of metabolism protein expression associated with poor survival. These proteome signatures are not predicted by genomics or transcriptomics, and comprise new drivers that likely govern cancer metabolism.

10:00 am **Regulations of Metabolism in Tumour Cells by Selective mRNA Translation**

Poul Sorensen, BC Cancer Agency and UBC

We recently made the discovery that the eEF2K serine/threonine kinase protects neural tumour cells from acute nutrient deprivation by inactivating the translation elongation factor, eEF2, thus blocking mRNA translation elongation to preserve cell energy. We now find that, unexpectedly, eEF2K achieves this effect by reprogramming cellular metabolism through selective translation of specific mRNAs. Resulting changes in protein synthesis in turn favor utilization of nutrient sources other than glucose to generate cellular ATP under conditions of nutrient deprivation.

10:20 am **Resetting Cellular Metabolism to Stop the Cancer Engine**

Vincent Giguère, Goodman Cancer Research Centre, McGill University

Altered metabolism is now considered a hallmark of cancer. In addition, the metabolic status of cancer cells impacts on their response to drugs. Our program is dedicated at identifying molecular pathways that, when targeted by drugs, induce metabolic vulnerabilities in cancer cells rendering primary tumours and metastases more sensitive and/or less resistant to current anti-cancer therapies.

Biomarkers, Disease Monitoring, and Response to Treatment

11:15-12:45 am / Pavilion Ballroom C&D / **Session Chair: Ryan Morin**

This session showcases a diverse set of perspectives from experts involved in biomarker discovery and clinical implementation. The speakers will introduce key barriers in bringing biomarkers from the bench to bedside. Each presenter will show concrete examples drawing from their unique experience. New techniques used for studying the dynamics of cancer will be explored spanning functional imaging, flow cytometry and circulating tumour DNA.

11:20 am **Automated Flow Cytometry Data Analysis for Clinical Diagnosis and Biomarker Discovery**

Ryan Brinkman, BC Cancer Agency and UBC

Conventional manual data analysis cannot provide a complete analysis of datasets generated by the current generation of flow cytometry instruments generating 50 parameter data on each of hundreds of thousands of single cells per sample. An overview will be provided of general data-analysis pipelines both for automatic identification of cell populations of known importance (e.g., diagnosis by identification of pre-defined cell population) and for exploratory analysis of cohorts of flow cytometry assays (e.g., discovery of cell populations that correlate with patient subgroups). Real-world examples of how automated discovery and diagnosis approaches have been used in basic and clinical research will be used illustrate the power of these approaches in practice.

11:38 am **Studying Clonal Evolution and Diversity in non-Hodgkin Lymphomas Using Liquid Biopsies and Single-Cell Sequencing**

Ryan Morin, BC Cancer Agency and SFU

This talk will introduce some emerging sensitive technologies for quantifying circulating tumour DNA for measuring changes in tumour burden. New applications of ctDNA analysis to study clonal evolution in cancer will be explored. A focus will be on applications to better understand mechanisms of treatment resistance and relapse in non-Hodgkin lymphomas.

11:56 am **Molecular Imaging to Predict and Monitor Cancer Response to Therapy, *In Vivo***

François Bénard, BC Cancer Agency and UBC

Radiolabeled probes can be used to non-invasively measure, *in vivo* and non-invasively, the expression of several cancer-associated receptors and enzymes. In addition to being useful as tools for cancer detection, several of these imaging probes can be used to monitor treatment response to therapy. From the classical 18F-Fluorodeoxyglucose, now widely used to assess response to therapy in selected cancers, the development of new imaging probes will be reviewed in this presentation, targeting cancer-specific receptors and enzymes.

12:14 am **The Road From Discovery to FDA-Cleared Clinical Test: The PAM50 Story**

Torsten Nielsen, BC Cancer Agency and UBC

Translating basic science – a genomic signature linked to patient outcome and optimal treatment in cancer – into an actual clinical test has many steps that must be overcome. Using the example of the PAM50 test for breast cancer subtype, Dr. Nielsen will describe how his team was able to complete the many and necessary steps of: discovery, internal and external validation, conversion to a clinical platform, licencing, formal high level of evidence demonstration of analytical validity (of the technology) and clinical validity (for intended use), regulatory approval, inclusion into practice guidelines, distributing the test and securing reimbursement.

12:39 am **Wrap Up/Q&A**

Plenary I: Cancer Metabolism

1:45-2:45 pm / Parksville / **Dr. Julie St-Pierre, McGill University and Session Speakers**

Dr. Julie St-Pierre, associate professor of biochemistry, McGill University, will lead this breakout with a short presentation on how metabolomics has helped to push forward the cancer and metabolism field. An open discussion with her and speakers from this session will follow.

Plenary II Biomarkers, Disease Monitoring and Response to Treatment

1:45-2:45 pm / Junior A&B / **Discussion with Session Speakers**

Genome Analysis and Epigenomics

8:30-10:00 am / Pavillion Ballroom C&D / **Session Chairs: Trevor Pugh and Cheryl Arrowsmith, PMCC and U of T**

This session will examine the role of epigenetic dysregulation in cancer and strategies to take advantage of cancer specific changes in the epigenome. Alterations in DNA methylation patterns, oncogenic mutations in histones, metabolic changes, mutations in chromatin regulatory enzymes and changes in post-translational modifications of histones lead to altered gene expression programs that sustain the cancer phenotype. This session examines each of these mechanisms along with potential strategies to target their cancer-specific features.

8:35 am **Towards Using Epigenetic Therapy to Improve Cancer Immunotherapy**

Daniel de Carvalho, PMCC and U of T

During this presentation I will discuss the ability of DNA demethylating drugs to induce 'viral mimicry' and the implication of this to cancer epigenetic therapy and immunotherapy.

8:50 am **Vitamin C-Induced Methylome Remodeling in HOXA9-Immortalized IDH1 R132H Bone Marrow Cells**

Martin Hirst, BC Cancer Agency and UBC

Heterozygous genetic mutations to TET2 and IDH1/2 are recurrent yet largely mutually exclusive events in acute myeloid leukemia (AML). Ascorbic acid (vitamin C), a cofactor for TET2 and other 2-OGDDs, reduces Fe(III) and stimulates the catalytic activity of TET2 in vivo. Using a HOXA9-immortalized AML model expressing the IDH1 R132H mutant gene we demonstrate that vitamin C significantly reduces cell proliferation, increases myeloid specific cell surface markers and induces methylome remodelling.

9:05 am **Oncohistones: Where Are We At?**

Nada Jabado, Montreal Children's Hospital and McGill University Health Center Research Institute

Recent studies have shown that chromatin-associated proteins and transcription factors have more somatic alterations than any other class of oncoproteins in childhood CNS tumours. Different H3 genes/variants can be affected with remarkable specific association between tumour location/type and the particular H3 residue or variant that is mutated. This observation, along with the high prevalence of H3 mutations in pediatric and young adult HGA and bone tumours, suggest that these oncohistones are selected for in the context of organ development. These ground-breaking discoveries of oncohistones implicate a direct effect of epigenetic misregulation in oncogenesis, and what we know of their effects along with novel tools needed to study them will be described in this symposium. We will also describe how we are harnessing synergies between cancer genomics approach and chemical biology approaches to help make sense of the pathogenesis of oncohistones.

9:20 am **Probing for Epigenetic Vulnerabilities in Cancer**

Cheryl Arrowsmith, PMCC and U of T

Potent, selective drug-like chemical inhibitors are powerful tools for linking pharmacological inhibition of a target with modulation of a disease phenotype. We are systematically developing such 'chemical probes' for epigenetic regulators of gene expression, many of which are disrupted in cancer. These reagents allow us to identify potential new drug targets and mechanisms in cell-based models of cancer such as patient-derived tumour culture cells and organoids.

9:35 am **Q&A**



Keynote Speaker

10:30-11:30 am / Pavilion Ballroom C&D / **Dr. Carlos Caldas, MD FACP FRCP FRCPATH FmedSci.**
University of Cambridge, UK

10:30-
11:30 am

Breast Cancer Inter- and Intra-Tumour Heterogeneity

Dr. Carlos Caldas, MD FACP FRCP FRCPATH FmedSci. University of Cambridge, UK

Dr. Carlos Caldas is professor of cancer medicine at the University of Cambridge and has been the chair of Cancer Medicine at the University of Cambridge since 2002. He heads the Breast Cancer Functional Genomics Laboratory at the Cancer Research UK Cambridge Institute. He is an honorary consultant medical oncologist at Addenbrooke's Hospital, lead of the Cambridge Experimental Cancer Medicine Centre, and director of the Cambridge Breast Cancer Research Unit. He was elected a Fellow of the Academy of the Medical Sciences in 2004, a Fellow of the European Academy of Cancer Sciences in 2010, and EMBO member in May 2015.

His research focus is in the functional genomics of breast cancer and its biological and clinical implications. His laboratory redefined the molecular taxonomy of breast cancer, revealing novel subtypes and their respective drivers [Curtis et al, *Nature* 2012, Dawson et al, *EMBO J* 2013], and subsequently robustly validated this new breast cancer molecular taxonomy [Ali et al, *Genome Biology* 2014]. They also completed miRNA profiling of 1,300 of the same tumours and this is uncovering a new role for miRNAs as modulators of the immune response in a subset of breast cancers [Dvinge et al, *Nature* 2013]. His group also co-lead seminal studies that define the clonal heterogeneity of triple negative breast cancers [Shah et al, *Nature* 2012] and the patterns of whole-genome ER binding in primary tumours, which reveal new biology [Ross-Innes, *Nature* 2012]. Finally his group has co-led studies that established ctDNA as a monitoring biomarker [Dawson et al, *NEJM* 2013] and a liquid biopsy to unravel therapy resistance [Murtaza et al, *Nature* 2013; Murtaza et al, *Nature Communications* 2015]. More recently, his laboratory has been developing the use of patient-derived tumour explants as a model system for breast cancer [Eirew et al, *Nature* 2015].

Dynamic Therapeutics in Cancer

1:00-2:30 pm / Pavillion Ballroom C&D / **Session Chairs: Gerald Batist, Jewish General Hospital and McGill University and David Malkin, The Hospital for Sick Children and U of T**

As we continue to unravel the complexity, heterogeneity and dynamic aspects of cancer evolution, new approaches to clinical research are emerging. This session is designed to provide examples of recent and ongoing work that aims to address these aspects in cancer therapeutics. Understanding a cancer's biology is key to defining better-matched therapies, combinations of treatments and even the optimal sequencing of these treatments. The main session and the breakout will provide the opportunity to expose this novel research and to have responses to questions by the expert panellists.

1:05 pm **The TFRI PROFYLE Initiative: A Window Into the 20% Solution for Childhood Cancer**

David Malkin, The Hospital for Sick Children and U of T

While over 80% of children diagnosed with cancer survive, outcomes for those with relapsed, refractory or metastatic disease have not improved in over three decades. Emerging studies suggest that the genome of childhood cancers is generally 'quiet', that actionable targets are few, and that a significant fraction of the cancers that occur in children can be attributed to heritable germline genetic alterations. On this background, the **Terry Fox PRrecision Oncology For Young PeopLE (PROFYLE)** program has been initiated – a pan-Canadian multi-institutional, multi-dimensional effort that aims to transform the care of childhood, adolescent and young adult patients by using next-generation molecular tools and cancer model systems to identify disease- and patient-specific biomarkers that are tractable targets for therapy.

1:23 pm **Informing the Uninformed: Rationale Treatment Selection and Sequencing for Prostate Cancer**

Kim Chi, BC Cancer Agency, Vancouver Prostate Centre, UBC

Initially, prostate cancer is exquisitely sensitive to androgen deprivation therapy (ADT, castration) but eventually evolves to a castration resistant (CRPC) state which is the lethal form of the disease and molecularly distinct. Understanding the mechanisms underpinning CRPC progression are important for developing new treatment approaches but is challenged by the lack of representative tissues, in part due to the bone metastases predominant nature of the disease. We have used neoadjuvant studies with pre-operative administration of ADT and/or novel agents to understand dynamic changes in prostate cancer in the context of treatment. In addition, the use of liquid biopsies, particularly cell free DNA, is a minimally invasive method to sequentially monitor CRPC and can potentially guide therapy decisions.

1:41 pm **Dynamics of Targeted and Immunotherapies in Melanoma: Real-World Examples**

Wilson Miller, Jewish General Hospital, McGill University

Metastatic melanoma has gone from a hopeless diagnosis to become a model for the successful development of both novel targeted therapies and immunotherapies. We will discuss the evolving data to guide the choice, timing and use of new combinations of these modalities.

1:59 pm **Hypermutation and Neo-Antigen Formation Predict Response to Immune Checkpoint Inhibition in Childhood Biallelic Mismatch Repair Deficient Cancers**

Uri Tabori, The Hospital for Sick Children and U of T

Tumours from patients with biallelic mismatch repair deficiency syndrome (bMMRD) have extremely high mutational burden due to replication repair ablation. Furthermore, these cancers continue to accumulate mutations and therefore change neo-antigen formation. Data from 37 bMMRD cancers and multiple recurrent cancers from the same patient reveal significantly higher mutational load and neo-antigen formation compared to other human cancers. Treatment of patients with recurrent malignant bMMRD cancers with immune checkpoint inhibitors resulted in significant clinical and radiological response.

2:17 pm **Wrap Up/Q&A**

Microenvironment to Macroenvironment

3:00-4:30 pm / Pavillion Ballroom C&D / **Session Chairs: Brad Nelson, BC Cancer Agency Deeley Research Centre and Gelareh Zadeh, University Health Network**

Recent successes with immune-based and anti-angiogenic therapies have underscored the critical role of the microenvironment in cancer outcomes and treatment. Yet the microenvironment is in turn strongly influenced by macroenvironmental factors such as histological site, host microbiome, and environmental exposures. This plenary session will highlight the work of four TFRI New Investigators performing pioneering work across this broad research spectrum. In the accompanying breakout, we will explore new opportunities to forge interdisciplinary links between the micro- and macroenvironments, building on unique strengths within the Canadian research landscape. We will draft a white paper that will be presented to TFRI to inspire crosscutting ideas for future investment in this rapidly evolving space.

3:05 pm **The Intra- and Inter-Tumoural Heterogeneity of Prostate Cancer**

Paul Boutros, Ontario Institute for Cancer Research

Prostate cancer remains the most prevalent non-skin tumour in men, and our understanding of its initiation and progression is being transformed by intensive study of its genome. I will discuss recent advances in our understanding of the spatial and temporal variability of the disease. These advances are being combined with machine-learning approaches to create clinically-applicable diagnostic and prognostic tests, and I will outline the state-of-the-art in these tests and their applicability to patients.

3:23 pm **Immunosuppressive Pathways and the Role of Environmental Factors on Tumour Immunity**

John Stagg, Centre de Recherche du Centre Hospitalier de l'Université de Montréal

Cancer immunotherapy has recently entered in a new era with the development of first generation immune checkpoint inhibitors targeting the PD1 and CTLA-4 pathways. In this context, considerable research effort is being deployed to find the next-generation of cancer immunotherapeutics. Several regulatory mechanisms occur concurrently within the tumour microenvironment resulting in multiple redundant levels of immune suppression, each representing a potential therapeutic target. In addition to the tumour microenvironment, host macroenvironmental factors including commensal microbial composition influence anti-tumour immunity. I will here summarize microenvironmental and macroenvironmental factors that regulate anti-tumour immunity.

3:41 pm **The Role of Bone Marrow-Derived Cells in Brain Tumour Microenvironment**

Gelareh Zadeh, University Health Network

The past two decades of research have resulted in a better understanding of angiogenesis in cancer, however clinical trials have shown limited benefit of anti-angiogenesis therapy (AATx), indicating that we need to better understand mechanisms of resistance that evade AATx. Our work has focused on understanding the contribution of bone marrow-derived cells (BMDC) to neo-vascularization in order to design precisely targeted therapies, delivered at critical stages of tumour growth, to gain the most effective inhibition of tumour neo-vascularization targeting both tumour vasculature and BMDC.

3:59 pm **Arming Oncolytic Viruses to Optimize and Exploit the Tumour Microenvironment for Immunotherapy**

Rebecca Auer, Ottawa Hospital Research Institute

While selective tumour cell killing remains a hallmark, Oncolytic Viruses (OV), armed with cytokines, are increasingly being used to alter the tumour microenvironment with improved efficacy. In this talk, the recent progress by members of the Canadian Oncolytic Virus Consortium on using OV to 1) exploit cellular cross talk between tumour cells and cancer associated fibroblasts, 2) organize tumour-infiltrating B cells, 3) reverse intra-tumoural T cell exhaustion and 4) recruit activated Natural Killer cells to the tumour microenvironment will be highlighted.

4:17 pm **Wrap Up/Q&A**

CONCURRENT BREAKOUTS: Friday, May 13

Each of these breakouts will feature panel discussions with co-chairs and speakers from the three plenary sessions and are intended to provide an opportunity for meeting attendees to learn more about these areas of cancer research through open discussion.

Plenary III: Genome Analysis/Epigenomics

4:30-5:30 pm / Junior A&B / **Drs. Trevor Pugh and Cheryl Arrowsmith and Session Speakers**

Plenary IV: Dynamic Therapeutics in Cancer

4:30-5:30 pm / Finback / **Drs. Gerald Batist and David Malkin and Session Speakers**

Plenary V: Microenvironment to Macroenvironment

4:30-5:30 pm / Parksville / **Drs. Brad Nelson and Gelareh Zadeh and Session Speakers**

RAPID-FIRE TALKS / ATTENDED POSTER SESSIONS

All trainees have been assigned to a Rapid-Fire Talk Group and are expected to participate in these group discussions, even if they are not presenting a talk. The groupings and room assignments appear below. Both trainee and non-trainee poster numbers appear below. Non-trainees will not present a talk. All meeting participants are encouraged to participate in the group discussions.

THURSDAY, MAY 12

Trainee Rapid-Fire Oral Poster Talks (Small Groups)	3:15 - 4:45 pm See Assigned Groups and Rooms
Attended Poster Session and Reception (First half even; second half odd)	4:45 - 6:15 p.m.

All posters to be installed in the Junior and Pavilion Foyers and Pavilion A&B

GROUP 1 ROOM: JUNIOR A&B

PAGE & POSTER	PRESENTER	TITLE
1	R Aitken, Amelia	The Cellular And Immune Responses To An Oncolytic Virus Targeting The RNAi Pathway
2	Blankstein, Anna	Siramesine And Lapatinib Induce Ferroptosis In Glioblastoma And Lung Adenocarcinoma Cells
3	R Burston, Helen	Identification Of An Essential Autocrine Signaling Loop Involving Relaxin And RXFP1 In High Grade Serous Ovarian Cancer
4	R Chan, Fong Chun	Clonal Dynamics Shape The Histological Transformation And Progression Of Follicular Lymphoma
5	R Dargahi, Daryanaz	Pan-Cancer Identification And Prioritization Of Cancer-Associated Alternatively Spliced And Differentially Expressed Genes: A Biomarker Discovery Application
6	R Firmino, Natalie	Hypoxia Is Induced In The Tumour-Draining Lymph Node
7	R Gangeh, Mehrdad	Cancer Therapy Assessment Using Multiview Learning And Quantitative Ultrasound Methods
8	R Gebremeskel, Simon	Combining Natural Killer T Cell Immunotherapy With Chemotherapy Induced Immunogenic Cell Death To Target Breast Cancer Metastasis
9	Hao, Jun	Role Of GRB10 In The Development Of AR ⁺ Castration-Resistant Prostate Cancer
10	Harmatys, Kara	Progress Towards Prostate Cancer Targeted, Nanoparticle Enabled Photoacoustic Imaging
11	R LeBlanc, Veronique	Elucidating The Mechanisms By Which CIC Mutations Contribute To Malignancy
12	R Skowron, Patryk	Convergent Evolution Of Medulloblastoma Metastatic Tumours
13	R Skulimowski, Michael	Senescence-Associated Biomarkers Predict Clinical Outcome In High-Grade Serous Ovarian Cancer
14	R Vernier, Mathieu	The Estrogen Related Receptor Alpha Regulates The Methionine Cycle And DNA Methylation

R=Rapid Fire Talk

All posters to be installed in Junior and Pavilion Foyers and Pavilion A&B

GROUP 2 ROOM: PARKSVILLE

PAGE & POSTER	PRESENTER	TITLE
15	Alkayyal, Almohanad	Utilizing An IL-12 Expressing MARABA MG1 Virus To Improve Autologous Tumour Infected Cell Vaccine
16	R Arthur, Sarah	Single-Cell Sequencing And CTDNA Resolve Clonal Structure And Clonal Evolution Patterns An Diffuse Large B-Cell Lymphoma
17	R Bydoun, Moamen	Functional Assessment Of The Plasminogen Receptor P11 As A Contributor To Cell Invasion And A Prognostic Marker In Pancreatic Cancer
18	R Chun, Hye-Jung	Extra-Cranial Malignant Rhabdoid Tumours Exhibit Heterogeneous DNA Methylation and Gene Expression Profiles
19	R Clairefond, Sylvie	Biomarker Validation By Immunofluorescence: A Novel Approach To Follow Prostate Cancer Progression
20	R Hopkins, Julia	Mitochondrial Mutations in Prostate Cancer Crosstalk With Nuclear Mutations
21	R Kridel, Robert	Defining the Mutational Landscape of Transformed and Treatment-Resistant Follicular Lymphoma
22	Luk, Iris Sze Ue	Targeting The Inhibitor Of Apoptosis Protein, BIRC6, As A Novel, Potential Strategy For Therapy Of Advanced Enzalutamide-Resistant Prostate Cancer
23	R Maeda, Azusa	Investigating The Response Of Pancreatic Tumours To High-Dose Irradiation Using <i>In Vivo</i> Imaging
24	R Sung, Vanessa	Met and FGFR1 Cooperate To Regulate Tumour-Initiating Cells In A Subset Of Triple Negative Breast Cancer
25	R Timilshina, Narhari	A Contemporary Analysis Of Active Surveillance Uptake For Low Risk Localized Prostate Cancer (PC) In Canada
26	R Wadsworth, Brennan	A Timecourse Strategy To Identify Transiently Hypoxic Cells In Solid Tumours
27	R Zhang, Wen	Proteome Signatures And New Cancer Drivers

GROUP 3: ROOM PORT ALBERNI (4TH FLOOR)

28	R Allard, Bertrand	CD73 Expression Is An Independent Prognostic Biomarker In Prostate Cancer
29	Baxter, Katherine	Murine Models Of Pancreatic Cancer Can Be Effectively Treated With An Infected Cell Vaccine
30	R Becker-Santos, Daiana	Developmental Transcription Factor NFIB Is A Target Of Oncofetal MiRNAs And Is Associated With Tumour Aggressiveness In Lung Adenocarcinoma
31	R Boyne, Devon	The Association Between Adiposity And Repetitive Element DNA Methylation In Healthy Post-Menopausal Women
32	R Bramhecha ,Yogesh	The 16p13.3 Genomic Gain: A Biomarker For Disease Progression in Prostate Cancer
33	R Cromwell, Ian	Cost-Effectiveness Analysis Of Genome-Guided Management Of Premalignant Oral Lesions

R=Rapid Fire Talk

RAPID-FIRE TALKS / ATTENDED POSTER SESSIONS

All posters to be installed in Junior and Pavilion Foyers and Pavilion A&B

GROUP 3 (CONT'D.) ROOM: PORT ALBERNI (4TH FLOOR)

PAGE & POSTER	PRESENTER	TITLE
34	R Filiaggi, Corey	Using The Zebrafish to Model High-Risk, NUP98-NSD1 Induced Pediatric Acute Myeloid Leukemia
35	R Kondratyev, Maria	Novel Therapeutic Targets In Head And Neck Cancer
36	R Kutovaya, Olga	The Role Of <i>UBR5</i> Mutations In The Pathogenesis Of Mantle Cell Lymphoma
37	R Li, Luolan	Regulatory Landscape Of Developing Human Brain
38	R Lim, Liang	Clinical Study and Analysis of <i>Ex Vivo</i> Photoacoustic Imaging in Endoscopic Mucosal Resection Tissues in Barrett's Esophagus
39	Qu, Sifeng	Inhibition of Prostate Cancer Invasion and Metastasis by the Combination of Docetaxel and Aneustat Via TargetinG EZH2
40	R Xie, Stephanie	Dependence on Sphingolipid Metabolism in the Normal and Leukemic Human Hematopoietic Hierarchy

GROUP 4 ROOM: BELUGA

41	R Bulaeva, Elizabeth	Overexpression Of C-MYC Enhances The Growth Of Primitive Human Hematopoietic Cells And Induces A Human Leukemia De Novo In Transplanted Mice
42	R Enfield, Katey	ELF3 Amplification Circumvents Dependency On Upstream Driver Mutations In Lung Adenocarcinoma
43	R Fleury, Hubert	Synergistic Effect Of NER And PARP Inhibitor Combinations In Epithelial Ovarian Cancer
44	Hammond, Colin	Global Transcriptome Analysis of CD34 ⁺ Chronic-Phase CML Cells
45	Jones, Laura	Alternatively Phosphorylated STAT3 Supports Pro-Tumourigenic Metabolic Changes in Breast Cancer
46	R Kaufmann, Kerstin	Extracting the Key Regulators of Leukemia Stem Cell Self-Renewal Using An Advanced Competitive <i>In Vivo</i> Screen
47	R Krishnan, Ramya	First-In-Class Small Molecule Potentiators of Cancer Virotherapy
48	R Lim, Emilia	Comprehensive Sequence Analysis Of Relapse And Refractory Pediatric Acute Myeloid Leukemia Identifies Transcripts Associated with Treatment Resistance
49	R Liu, Kelly	Nodal Disease Remains A Poor Prognosis At Surgery Or During Follow-Ups – A COOLS' Experience
50	R Mollen, Erik	Targeting Peroxiredoxin4 In Pancreatic Cancer
51	R Overchuk, Marta	High-Density Lipoprotein Mimicking Nanoparticles For Localized Prostate Cancer Imaging and Image-Guided Therapy
52	Son, Hwan Hee	Molecular And Histopathological Determinants Of Successful Oncolytic Virotherapy
53	R Watt, Kathleen	Discovery Of Novel Prometastatic Targets Of MicroRNA-206 In Human Lung Adenocarcinoma

R=Rapid Fire Talk

All posters to be installed in Junior and Pavilion Foyers and Pavilion A&B

GROUP 5 ROOM: FINBACK

PAGE & POSTER		PRESENTER	TITLE
54	R	Boudhraa, Zied	Therapeutic Relevance of Ran GTPase in Epithelial Ovarian Cancer
55	R	Bushell, Kevin	Detection Of Hotspot Mutations In Plasma With A Highly Multiplexed Platform
56	R	Cardin, Sophie	Modeling Of Pediatric Acute Megakaryoblastic Leukemia (AMKL) Using Cord Blood Stem/Progenitor Cells
57	R	Lightbody, Elizabeth	PPAR γ Loss Increases Metastasis of HER2+ Breast Tumours
58	R	Lo, Winnie	RNA Synthesis Of Homologous Recombination Repair Pathway Under Hypoxia
59	R	MacAldaz, Margarita	Analysis of Human Hematopoietic Cells Generated from Human Induced Pluripotent Stem Cells in Differentiating Teratomas
60	R	MacLeod, Graham	Genome-Wide CRISPR/CAS9 Screening Reveals Modulators Of Temozolomide Response in Glioblastoma
61	R	Martinez, Victor	Analysis of Piwi-Interacting RNA Transcriptomes Identify Cancer Type-Specific Expression Patterns and Signatures Predicting Lung Tumour Behaviour
62	R	Murugesan, Alli	Novel Therapeutic Approach To Target Multiple Myeloma: Inhibition Of 3' IGH Enhancer Using Small Molecules
63		Papadopoli, David	The Functional Link Between Mitochondrial One-Carbon Metabolism And Cellular Bioenergetics In Breast Cancer
64	R	Selman, Mohammed	Phosphatase Inhibitor Synergizes With Oncolytic Virotherapy
65	R	Topham, James	<i>KMT2D</i> Loss Of Function Is Associated With Increased Mutational Load And Downregulation Of Genes Involved In DNA Damage Response Pathways
66		Tran, William	Baseline Textural Features Of Diffuse Optical Spectroscopy Parameters To Predict Chemotherapy Response In Locally Advanced Breast Cancer-Preliminary Results

GROUP 6 ROOM: ORCA

67	R	Calvo Gonzalez, Lilians	Redundant Cyclin-Dependent Kinase Inhibitors Regulate Beneficial Therapy-Induced Senescence In High Grade Serous Ovarian Cancer
68		Chung, Philip E.D.	Targeted Inactivation Of Rb and p53 Via WAP-CRE Induces Pineoblastoma
69		Desreumaux-Communal, Laudine	Validation Of Therapeutic Targets In Ovarian Cancer
70		El Naggar, Amal	YB-1 Regulates Metabolic Adaptation And Cancer Progression Through Selective mRNA Translation
71	R	Halvorsen, Elizabeth	CCR5 Antagonists As Immune-Modulating Agents For The Treatment Of Breast Cancer Metastasis
72	R	Healy, Shannon	Recurrent TMEM30A Loss-Of-Function Mutation Improves Prognosis In Diffuse Large B Cell Lymphoma

R=Rapid Fire Talk

RAPID-FIRE TALKS / ATTENDED POSTER SESSIONS

All posters to be installed in Junior and Pavilion Foyers and Pavilion A&B

GROUP 6 ROOM: ORCA (CONT'D.)

PAGE & POSTER	PRESENTER	TITLE
73	R Keller, Brian	Creating And Characterizing A Transposon-Mutagenized Library Of Vaccinia Virus Clones For The Treatment of Human Cancer
74	R Kent, Oliver	Transcriptional Regulation of MIR-31 By Oncogenic KRAS Mediates Metastatic Phenotypes By Repressing <i>RASA1</i>
75	R Mahamud, Osman	Hypoxia Induces Contextual 'Loss-Of- Heterozygosity' And Promotes PARPi Sensitivity
76	Pararajalingam, Prasath	Mantle Cell Lymphoma Sequencing Implicates Novel Genes In Malignancy
77	R Robichaud, Nathaniel	Translational Control Of The Tumour Microenvironment
78	R Schachter, Nathan	Identifying Genes That Cooperate With Mutant P53 And Activated STAT3 In Breast Cancer
79	R Sultan, Mohammad	Identification Of Paclitaxel Response Mediators In Breast Cancer Using An <i>In Vivo</i> Genome-Wide Knockdown Screen

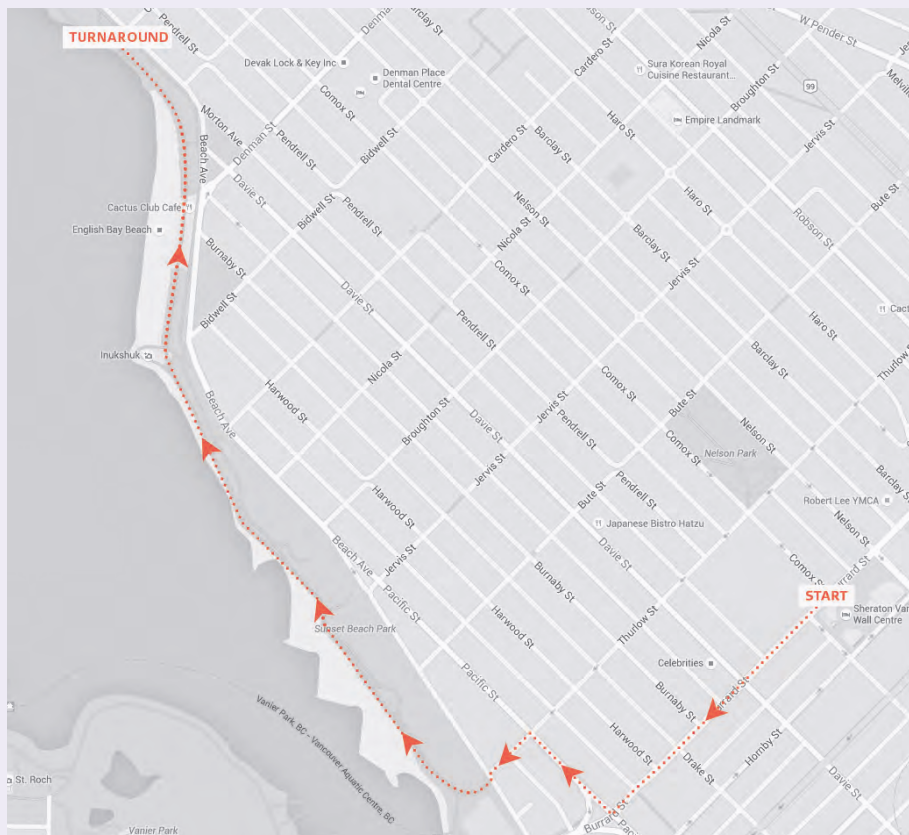
NON-TRAINEES

80	Bergeron, Alain	Validation Of The Prognostic Value Of Ki-67 And P27 In Prostate Cancer: The Canadian Prostate Cancer Biomarker Network (CPCBN) Experience
81	Chaudary, Naz	Plerixafor Inhibits Myeloid Cell Recruitment And Improves The Radiocurability Of Cervical Cancer
82	Chevalier, Simone	Fer-Activated Androgen Receptor (pY223AR): A Predictive Biomarker Of Prostate Cancer Progression
83	Couetoux du Tertre, Mathilde	Multi-Omics-Based Approach To Identify Biomarkers Of Therapeutic Resistance In Colorectal Cancer Patients Through Analyses Of Sequential Metastatic Tissue And Liquid Biopsies; Q-CROC-01: NCT00984048
84	Haynes, Jennifer	Using DNA Barcoding To Elucidate Colorectal Cancer Cell Heterogeneity and Clonal Dynamics At Baseline And In Response To Chemotherapy
85	Liu, Jeff	A Comprehensive Map Of Critical Pathways And Networks In Cancer Stem Cells
86	Ouellet, Veronique	Quality Assessment Of The Canadian Prostate Cancer Biomarker Network (CPCBN) Platform
87	Stapleton, Shawn	Modulating Nanoparticle Drug Delivery Using Radiation And Heat

GLOSSARY

BCCA	BC Cancer Agency	NIH	National Institutes of Health
BHCRI	Beatrice Hunter Cancer Research Institute	NSERC	Natural Sciences and Engineering Research Council
BCCRC	BC Cancer Research Centre		
CBCF	Canadian Breast Cancer Foundation	OCI	Ontario Cancer Institute
CCS	Canadian Cancer Society	OHRI	Ottawa Hospital Research Institute
CCSRI	Canadian Cancer Society Research Institute	OICR	Ontario Institute for Cancer Research
CFI	Canadian Foundation for Innovation		
CHUM	Centre hospitalier de l'Université de Montréal	PMCC	Princess Margaret Cancer Centre
CHUQ	Centre hospitalier de l'Université de Québec	SFU	Simon Fraser University
CIHR	Canadian Institutes of Health Research	TBCC	Tom Baker Cancer Centre, Calgary
CPAC	Canadian Partnership Against Cancer		
CRCHUM	Centre de recherche du Centre hospitalier de l'Université de Montréal	UBC	University of British Columbia
		UdeM	Université de Montréal
ICGC	International Cancer Genome Consortium	UHN	University Health Network
IWK	Izaak Walton Killam	UofC	University of Calgary
		UofM	University of Manitoba
MSFHR	Michael Smith Foundation for Health Research	UofT	University of Toronto
MSGSC	Michael Smith Genome Sciences Centre		
MUN	Memorial University of Newfoundland	VGH	Vancouver General Hospital
		VPC	Vancouver Prostate Centre

EARLY-MORNING RUN MAP: Friday, May 13



Runners and walkers may turn around at any time.

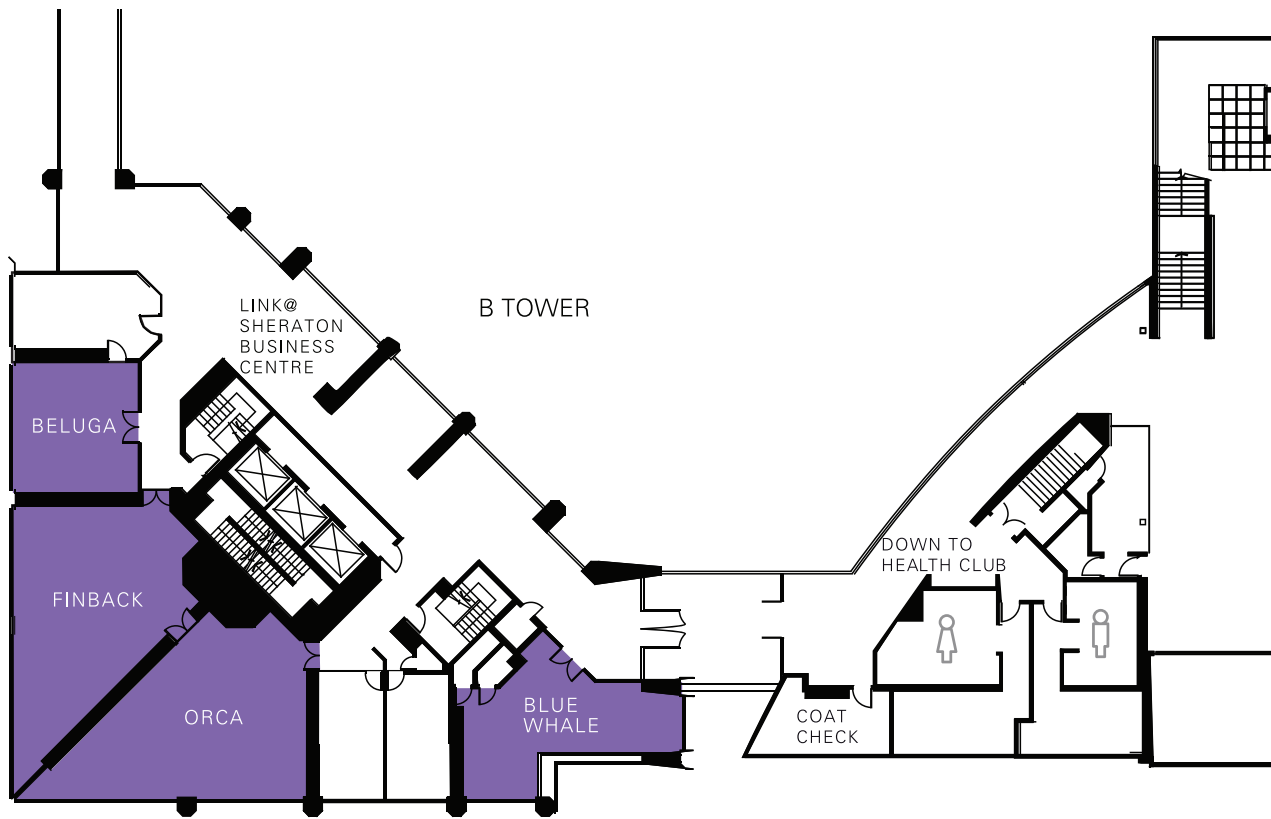
Estimated route distance: 5km

Access route mapped on Google:

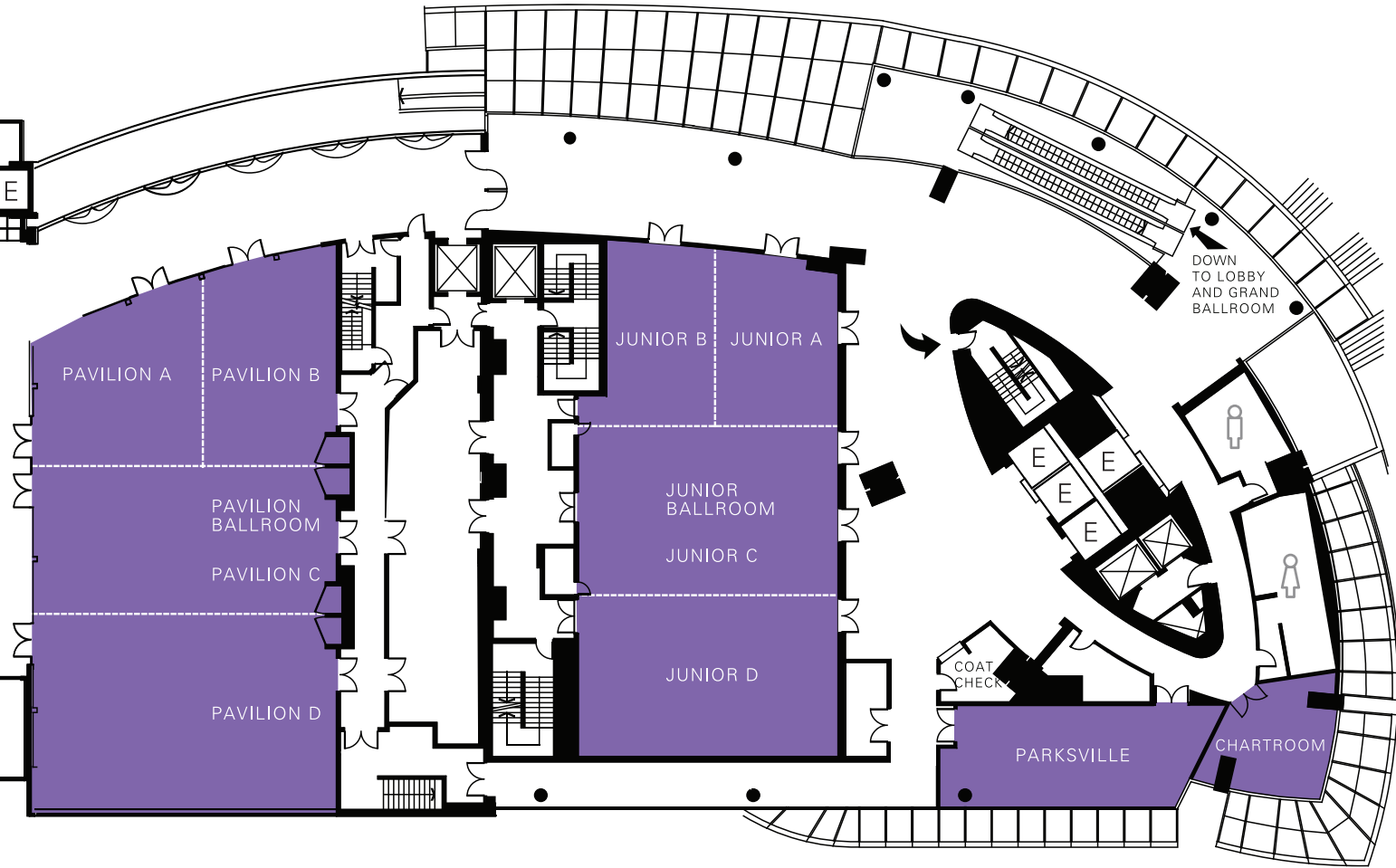
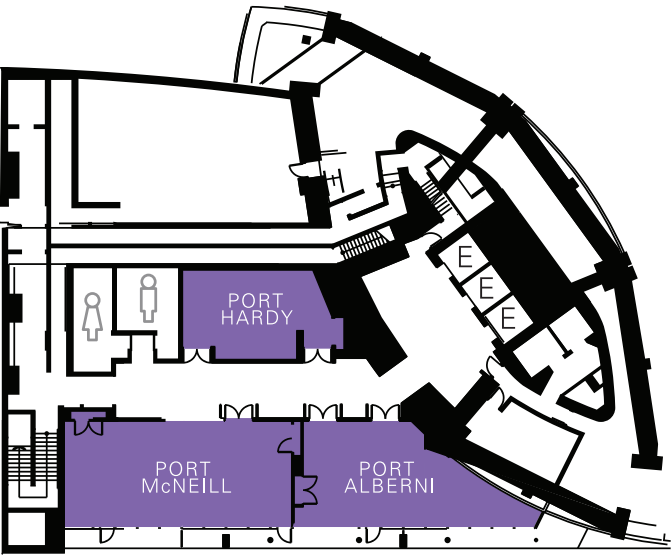
<http://www.mapmyrun.com/routes/fullscreen/1040049793/>

Turnaround point would have been near where Terry hoped to finish his run.

THIRD FLOOR



FOURTH FLOOR



The Terry Fox Research Institute from coast to coast



TFRI is an Institute without walls linking the capabilities of 73 leading cancer care and cancer research institutes and universities organized through six regional "nodes".

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Juravinski Cancer Centre
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Ontario Institute for Cancer Research
Ottawa Hospital Research Institute
Queen's University
Sunnybrook Research Institute
Thunder Bay Research Institute
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ATLANTIC

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Capital District Health Authority
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Isaac Walton Killam Health Centre
New Brunswick Health Research Foundation
Memorial University of Newfoundland (St John's)
New Brunswick Cancer Network
QEII Health Sciences Centre (Halifax)
The University of New Brunswick
The University of Prince Edward Island

