**Director’s Message**

Dear Friends,

I am very proud of the great work being done by our Institute, which is reflected in your publications in high-impact journals, your tri-council grants, and the success of your trainees. We are continuing to grow as an Institute, hitting increasingly higher milestones over time. Thank you for your dedication to cancer research and education, as we work to meet the cancer challenge.

Greg

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**Announcements**

**Dr. Christine Friedenreich announced incoming Chair of the Scientific Council of the International Agency for Research on Cancer (IARC)**

Dr. Friedenreich joins the highest ranks of the International Agency for Research on Cancer (IARC) as incoming Chair of the Scientific Council, along with fellow Institute member, Dr. Stephen Robbins who is the Co-Chair of the Governing Council at IARC. IARC is a World Health Organization agency based in Lyon that is focused on cancer research, with a particular focus on cancer prevention. The work of this agency is global with projects occurring in five continents. We wish Christine the very best in this new role.

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**Dr. Paola Neri appointed new Scientific Director, Precision Oncology Hub/Translational Research**

Dr. Paola Neri was recently appointed the new Scientific Director of the Precision Oncology Hub (Translational Research Laboratories) at the Tom Baker Cancer Centre. Dr. Neri will be working with an exceptional operational team, scientists, technicians, and staff. Paola will also be working closely with the Medical Lead for the POET Program, Dr. Gwyn Bebb; Medical Lead for the Clinical Research Unit, Dr. Danny Heng; and scientists at TBCC, Arnie Charbonneau Cancer Institute, and others across CancerControl Alberta and the University of Calgary, to help guide the precision oncology framework from translational science to new clinical trials. We wish Paola the very best in her new role.
Charbonneau Trainee Association (CTA)

Our newly formed Charbonneau Trainee Association (CTA) is an organization of postdoctoral and graduate students in the Arnie Charbonneau Cancer Research Institute. The aim of the CTA is to improve the overall experience for all trainees in the Charbonneau labs and beyond. To accomplish this, we want to 1) provide educational opportunities through academic events, 2) encourage trainees to become active members of the community through outreach events and 3) foster stronger relationships between trainees through social events.

CTA Executive Committee (pictured below):

Chair – Myra Joy Chen
Vice-Chair – Michael Johnston
Co-Outreach – Dan Berger and Danielle Bozek
Education – Jodi Rattner
Social – Danielle Polan
Advisor (Executive) – Beth Barretto

Institute Members Apply for Canadian Foundation for Innovation (CFI) Funding

Two grants are currently under development for the upcoming CFI Funding opportunity.

Led by Drs. David Schriemer, Susan Lees-Miller, Jennifer Cobb, and Gareth Williams, one of grants will focus on cancer and aging, with a central question around how cells respond to DNA damage over time. The team will generate images of the structural changes occurring in cellular DNA during both aging and cancer development.

A second grant, co-led by Dr. Aaron Goodarzi in partnership with scientists at Dalhousie University and the BC Cancer Agency, will aim to clarify the acceptable exposure limits of environmental carcinogens, such as arsenic and radon, enabling more precise environmental risk assessment.

EAB completes part II of its inaugural visit to the Institute

The Institute’s External Advisory Board (EAB) visited in October 2018 and heard from five additional areas of research: the Clark Smith Brain Tumour Centre, the Hematological Malignancies Research Group, the Early Cancer Detection Initiative, the Psychosocial Oncology Research Program, and the Childhood Cancer Research Program. They also reviewed updates in cancer research and progress on recommendations and since their previous visit in November 2017.

Overall, the EAB was impressed with research and education at the Institute. A brief summary of their recommendations follows:

- Strive to establish cancer as a research priority at the University of Calgary.
- Focus on research that makes a difference at the local, national, and international levels.
- Translate the new joint cancer research framework into opportunities and actions.
- Promote the visibility of Charbonneau.
- Ensure that the Institute’s new investigators are mentored and resourced for success.
- Develop and mentor a large and rigorous base of cancer research trainees.
- Foster patient involvement in research.
- Support the implementation of research into practice.
- Create opportunities for members to develop leadership skills and acquire experience.

We thank everyone who participated in the inaugural review over 2017 and 2018 and helped the Institute put its best foot forward.
Charbonneau Public Lecture:
Charbonneau is hosting its first public lecture on May 30th at Telus Spark. Speakers will include Drs. Darren Brenner, Jennifer Chan, and Doug Mahoney, with hands-on displays hosted by our trainees. Watch for details!

Upcoming Events
2019 Summer Student Orientation: May 14th at 1-1:50pm in room G500
2019 Summer Student Welcome Event: May 22nd Location: Greta Bar

Distinguished Speaker Series
May 3, 2019
Dr. Jeremy Rich
University of California San Diego

May 10, 2019
Dr. Jean Francois Cote
University of Montreal

May 24, 2019
Dr. Livia Garzia
McGill University

June 7, 2019
Dr. Ross Cagan
Icahn School of Medicine at Mount Sinai

June 14, 2019
Dr. Mario Suva
Dana Farber/Harvard Cancer Centre

Trainee Success

Amit Kalra, Supervised by Dr. Faisal Khan received the ASH Achievement Award at the Annual Meeting of American Society of Hematology

Candice Poon, winner of the 2019 K.G. McKenzie Memorial Prize for Basic Research awarded by the Canadian Neurosurgical Society and the CNSF. The prize is given to the best manuscript submitted by a neurosurgical resident, in which he or she is the principal author.

Charbonneau Cancer Institute Director Scholarship
Nancy Adam, Supervised by Drs. Karl Riabowol and Tara Beattie

Daniel Family Foundation Graduate Scholarship
Julie Deleemans, Supervised by Dr. Linda Carlson

FUNDING OPPORTUNITIES
- Clark H. Smith Brain Tumour Centre Graduate Scholarship
- Rejeanne Taylor Research Prize
- Alex Cummings Trainee Travel Award
- Howard Research Excellence Awards
- Postdoctoral Scholar Recruitment

Please visit our website (https://charbonneau.ucalgary.ca) for details on how to apply.
Welcome New Members

Dr. Lucie Lafay-Cousin
Associate Professor,
Departments of Oncology & Pediatrics

Dr. Martin Hyrcza
Assistant Professor,
Department of Laboratory Medicine & Pathology

Dr. Bimal Bhindi
Urologic Oncologist
Southern Alberta Institute of Urology

Dr. Erik Vakil
Clinical Assistant Professor
Interventional Pulmonary Respirology

Education & Training

Charbonneau Annual Research Symposium

Thank you for attending the 5th Annual Charbonneau Cancer Research Symposium. Your support and participation of our annual symposium is very much appreciated. Congratulations to the following trainees who won awards for best poster presentations:

- Dan Berger
- Beth Baretto
- Ana Nikolic
- Dustin Pearson
- Elizabeth Castle
- Julie Deleemans

Work in Progress – 3 Min. Thesis

Led by Nancy Adam and Paul Stewardson, first year Charbonneau Graduate Students will present their 3 minute thesis-STYLE presentations on Monday, April 29th. Reminder that presenting during the Work in Progress series is a requirement for all trainees within Charbonneau.

2019 SUMMER STUDENT AWARDS

Alberta Cancer Foundation Awards:

David C. Stokes Summer Studentship in Brain Tumour award: Lucy Yang working with John Kelly

Linda Singleton Summer Studentship in Pediatrics award: Karys Hildebrand working with Michael Monument

Richard R. Singleton Summer Studentship in Cancer Research Award: Jared Topham working with Matthias Amrein

Dianne Laflamme-McCauley Summer Undergraduate Research Award:

James Cho working with Doug Mahoney
Grace Heemeryck working with Edwin Wang

If you have summer students working in your labs this summer, please provide Carmen Coelho ccoelho@ucalgary.ca with their name and email address.
Facilities & Infrastructure

Charb Lab Managers meetings are held the 3rd Tuesday of every month from 10-11am in HRIC 2A19. This group discusses common issues and works together to develop solutions. A rep from every Charb lab is welcome to attend.

The Charb Lab Managers group identified problems with folks using the Charb common centrifuges/ultracentrifuges. Examples were staff and trainees not properly balancing rotors, not knowing the danger of dropping a rotor or how to properly clean up a spill.

The Lab Managers created an SOP which has been distributed to every Lab. There is an expectation that labs train all their staff and trainees to this standard. If you need a copy of the SOP or have questions please contact Donna Wray.

Finance

Due to a university financial audit there were numerous financial changes announced in Fall 2018. Further updates were announced in March 2019. Please see link below for more information.

One change that has the potential to impact investigators is the requirement for VP approval for corrections/expense reallocations for prior fiscal years. There will be more scrutiny to prove that the expenses are legitimate for the project goals. Past financial statements for both external agencies will need to be restated.

Investigators will need to spend more time planning expenses for the life cycle of projects. Expenses should be transferred during the fiscal year they occurred. Please contact Donna Wray or ISC with questions. https://www.ucalgary.ca/finance/files/finance/finance_process_guidelines_presentation.pdf
Upcoming Major External Grants:

**CIHR Project Grant**
(anticipated)
Registration due: August 2019
Application due: Sept. 2019

**CCS/CIHR Cancer Survivorship Team Grant**
Registration due: May 29, 2019
Application due: Sept. 10, 2019

**CCS Impact Grant**
LOI due: April 17, 2019
Application due: Sept. 10, 2019

**NOTE**: RSO deadline is 2 days earlier!

Reminder: Internal Peer Review
Do you plan to submit a grant to CRS? CIHR? CCSRI?
If yes, have you registered for internal peer review?
To schedule a "Chalk Talk" lunch or peer review meeting, or arrange 1:1 peer feedback, contact:
Savraj Grewal
grewalss@ucalgary.ca
or Melissa Shea-Budgell
melissa.sheabudgell@ucalgary.ca

News to Share?
Have you received a new grant or award? Has your student recently defended?
Please share your story with us! We are looking for content for the website, our LinkedIn profile, and the newsletter!

Research News

Congratulations to the Following Tri-Council Grant Recipients, Q3 2018-19:

**Canadian Institutes of Health Research:**

**Operating Grant: Epigenetics Clinical Translation**
*PI: Dr. Don Morris*
Co-Investigators and collaborators:
Anil Joy, Sunil Verma, Nancy Nixon, Gloria Roldan-Urgoiti, Qingrun Zhang, Shirin Bonni, Angela Chan, Elizabeth Kornaga, John McIntyre

MGMT promoter methylated breast cancer: An opportunity for a targeted treatment with alkylating agent temozolomide in combination with existing breast cancer therapeutics.

**Operating Grant: Secondary Data Analysis for Cancer Prevention and Control**
*PI: Dr. Karen Kopciuk*
Co-investigators and collaborators:
Bonnie Healy, Huiming Yang, Winson Cheung, Gregory Nelson, Melissa Shea-Budgell, Hyder Al-Attar, Bonnie Chiang, Amy Colquhoun, Rita Henderson, Angeline Letendre

Assessing cancer screening and outcomes among First Nations people in Alberta.

**Anonymous Donation will Fund Research to Examine Gaps in Care for Vulnerable Cancer Populations**
*PI: Dr. Winson Cheung*
Co-Investigators: Joe Dort, May Lynn Quan

Reducing Disparities for Vulnerable Cancer Populations through Health Services Research.

**Clinical Testing Now Underway in Alberta for a New Breast Cancer Detection Test**
*PI: Dr. Kristina Rinker*
Company: Syantra Inc. (www.syantra.com)
Co-Investigators: Bob Shepherd, Don Morris, May Lynn Quan, Bobbie Jo Docktor
Feature Article:
Intratumoral genetic and functional heterogeneity in pediatric glioblastoma.

Marco Gallo, PhD
Brain Cancer Epigenomics
Clark Smith Brain Tumor Centre
Physiology & Pharmacology
Cancer Research. 2019 Mar 15; DOI: 10.1158/0008-5472.CAN-18-3441

Dr. Gallo’s team, along with Drs. Sorana Morrissy, Jennifer Chan, Donna Senger, Lucie Lafay-Cousin, and Doug Strother, showed using whole genome sequencing on pediatric glioblastoma, that there is significant genetic diversity in both diagnostic and recurrent tissue, with rapid clonal evolution at recurrence. They describe the origins of genetic variants as somatic, inherited from a healthy parent, or de novo in patient germlines. They suggest that slow-cycling stem cell populations, since they seem less prone to genotoxic stress from treatments may contribute to recurrences.

Feature Article:
Central body fatness is a stronger predictor of cancer risk than overall body size.

Darren Brenner, PhD
Molecular Epidemiology
Cancer Epidemiology & Prevention Research (CEPR)

Using data from over 26,000 men and women in Alberta’s Tomorrow Project cohort, Dr. Brenner, with co-investigator Dr. Christine Friedenreich and team, aimed to determine the significance of body size versus weight distribution in predicting cancer risk. Central adiposity (based on waist circumference) was found to be the stronger predictor of cancer risk, especially for women. The paper suggests that secondary prevention can be improved by targeting screening to those at higher risk due to their body weight distribution.

Feature Article:
The CHD6 chromatin remodeler is an oxidative DNA damage response factor.

Aaron Goodarzi, PhD
Radiation Exposure Disease
Robson DNA Science Centre
Biochemistry & Molecular Biology

With co-investigators, Dr. Jennifer Chan and Dr. David Schriemer, Dr. Goodarzi and his team identified the role of CHD6, a chromatin remodeling enzyme, in regulating the DNA damage response to oxidative stress. Their work showed that loss of CHD6 impairs cell survival following oxidative stress, leads to abnormal relaxation of chromatin, and amplifies DNA damage signaling and checkpoint hypersensitivity. The group suggests that CHD6 could, in the future, prove to be a novel prognostic biomarker or a therapeutic target for cancer.
Population Health (Prevention and Early Detection) Research


Health Services/Implementation Research (continued)


Basic/Biomedical Research


Basic/Biomedical Research (continued)


Clinical Research


Clinical Research (continued)


Clinical Research (continued)


Clinical Research (continued)


Clinical Research (continued)


