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INTRODUCTION

It was hot summer but our summer students were even hotter. Our summer students presented their research at our annual summer student presentations for both Cell Biology and Medical Physics. The quality was outstanding and the audience was very supportive. Congratulations to all our summer students on contributing to research and wish you well in your future studies (see winners below)

The last MICB retreat will be held on September 24, 2015. We will be celebrating Discovery. Please let Eileen know if you want to present.

INTRODUCTION

We send best wishes to Heather Leslie, technician in Dr Mowat’s lab, on her well-deserved retirement. Heather has worked with us for 10 years and for the University of Manitoba over 42 years!

FUNDING ANNOUNCEMENTS

Jim Davie and Geoff Hicks each received a 2-year $120,000 operating grant from the Cancer Research Society. Jim’s grant was partnered with CancerCare Manitoba Foundation.

Jim Davie is also a co-investigator on a CIHR team grant “Canadian Epigenetics, Environment and Health Research Consortium Network” worth $1,000,000 over the next 4 years. Jim will be working with labs involved in CEEHRC and Genome Canada’s Genomics Innovation Network centres to provide outreach and training resources for epigenomic research throughout Canada.

Stephen Pistorius and his collaborators Drs LoVetri, Buchanan and Fear who were awarded a 3-year, $375,000 grant from Canadian Breast Cancer Foundation Prairies/NWT for their project “3D Multimodality Ultrasound/Microwave Breast Cancer Imaging for Treatment Monitoring”
**TRAINEE SUCCESS**

**Kiran Sharma**, post-doctoral fellow in Dr Davie’s lab, received the Careers in Cancer Research Development Program new PI award, sponsored by CIHR-ICR and CCSRI. Her award allows her to attend the 2015 Canadian Cancer Research Conference in Montreal and attend special meetings with other new PIs from across Canada, learn about developing a research program, and managing a lab.

Congratulations to **Daniel Huang** from Dr Katyal's lab, was chosen as the winner of the Best Presentation award at the MICB/RIOH Summer Student Symposium on August 13th.

**Matt Packer**, BSc Med student also in Dr Sachin Katyal’s lab, was chosen as one of the top 4 BSc Med student presenters. He has been invited to present at the Faculty of Health Sciences, College of Medicine’s annual Joe Doupe Memorial Lecture & BSc Med Celebration on September 3rd in the Frederic Gaspard Theatre.

The winners of the 2015 Medical Physics Undergraduate Summer Student Symposium on August 20th were

1st place: **Heather Whittaker** (Supervisor – Dr. Melanie Martin) “Quantitative MRI Reveals Unique Contrast in the Hippocampus of Mouse Models of Alzheimer’s Disease”

2nd place: **Michael Honke** (Supervisor – Dr. Melanie Martin) “Improving Magnetic Resonance Image Contrast Using Tissue Susceptibility”

3rd place: **Calene Treichel** (Supervisor – Dr. Stephen Pistorius) “Design of Experimental System for Breast Cancer Imaging”

Medical Physics Graduate Student **Geng Zhang** (Supervisor – Dr. Stephen Pistorius) satisfactorily defended his M.Sc. thesis titled “An algorithm for the simultaneous reconstruction of the radionuclide activity distribution and attenuation map based on PET scatter data” on Thu Aug 20.

RIOH bids a farewell to **Dr Yueqin Zhou**, successful PhD student and post-doctoral fellow in Dr Geoff Hicks’ lab. Among many of the awards Yueqin received while she studied with us, she was the 2014 Simon and Sara Israels’ Thesis award winner and received significant media coverage when she discovered of a gene related to amyotrophic lateral sclerosis (ALS) in PLoS Genetics. She is leaving for a fellowship in neuroscience with Dr Baloh at UCLA.

We also say farewell and good luck to **Amy Cisyk**, technician and former MSc student in the McManus lab. Amy has started medical school at the University of Manitoba.
Ankur Sharma is currently a PGY-3 in Radiation Oncology under the supervision of Dr Aldrich Ong.

**What is your research project?**
The first project involves a phenomenon referred to as “pseudoprogression” in high grade brain tumours treated with surgery, radiation and/or chemotherapy. Essentially, these treatments can sometimes create the impression that a tumour has progressed when we look at imaging studies, when in reality the disease is stable. The changes we see are thought to be related to inflammation due to the above mentioned treatments. This can, understandably, make treatment and management decisions quite difficult. We are investigating both the clinical and radiographic aspects of this problem. This project is a truly interdisciplinary endeavour, involving physicians such as Dr. Shaun Loewen and Dr. Harvey Quon (Radiation Oncology), Dr. Marshall Pitz (Medical Oncology) and Dr. Marco Essig and Dr. M. Nazir Khan (Radiology). Secondly, under the guidance of Dr. Naseer Ahmed and Dr. Rami Kotb from the departments of radiation oncology and hematologic oncology respectively, we are exploring survival outcomes in Multiple Myeloma patients who have received vertebral radiotherapy. Evidence in the area is currently lacking, and we hope to fill the gap in the scientific literature of this incurable and misunderstood disease. This research should supplement prior work I have done in the area of Multiple Myeloma during medical school, which looked at outcomes in autologous stem cell transplants.

**What made you choose CancerCare for your training?**
CancerCare Manitoba has a regional and national reputation of providing exceptional care to oncology patients. During my residency interview period, where I interviewed at radiation oncology residency programs across the country from Vancouver to Halifax, I developed the sense that I would feel most comfortable in this program. As a born and raised prairie boy who grew up in rural Alberta and completed his medical training at the University of Saskatchewan in Saskatoon, CCMB seemed like the next best logical step for me. The staff doctors in the radiation oncology at CCMB are knowledgeable and excellent teachers. There are many research opportunities for learners, with staff who are well known in their respected fields. CCMB also has access to cutting edge radiation therapy technology such as the Gamma Knife machine, which was Canada’s first. It provides our residents with a unique training opportunity, not available to most other Canadian radiation oncology residents.

**Which paper/poster/award have you received that you’re most proud of?**
Recently, alongside Dr. Naseer Ahmed, we completed a pilot study exploring the differences in the perception of “Do Not Resuscitate” orders between patients, their caregivers and health care providers in the setting of stage 4 lung cancer. Although preliminary, the research fills an important gap in the current literature in palliative care oncology. We published 2 articles from the data we collected in the Cureus Journal entitled “How, When and Where to Discuss Do Not Resuscitate: A Prospective Study to Compare the Perceptions and Preferences of Patients, Caregivers, and Health Care Providers in a Multidisciplinary Lung Cancer Clinic” and “Perceptions and Preferences of Patients with Terminal Lung Cancer and Family Caregivers about DNR.” I will also be presenting our findings in San Antonio, TX this October at the American Society of Therapeutic Radiation and Oncology (ASTRO) annual meeting, the largest radiation oncology conference in the world.
SAVE THE DATES!

MICB RETREAT—SEPTEMBER 24TH, 2015

This year’s MICB retreat will be held at the Mennonite Heritage Village in Steinbach. Our guest speaker will be Dr Amina Zoubeidi from the Vancouver Coastal Health Research Institute. Her major research focus is to uncover molecular mechanisms of prostate cancer progression to the castrate-resistant stage and metastatic disease with a special interest on elucidating mechanisms of epithelial mesenchymal transition. She elucidates diverse mechanisms involving stress activated proteins, Hsp27, clusterin, and tyrosine kinases Lyn and Fer in androgen independent progression. She recently developed preclinical models of MDV3100 resistant tumors and cell lines and studying mechanisms of resistance to MDV3100.

11TH CANADIAN CLL MEETING—OCTOBER 1 & 2ND, 2015

This year’s CLL Meeting will be held at The Inn at the Forks in Winnipeg, Manitoba. Key note speaker is Dr. Stanley Riddell from the Fred Hutchinson Cancer Centre. Call for Abstracts: Submissions Deadline August 15, 2015! For more information about the meeting, please go to www.cllmeeting.ca

2015 CANADIAN CANCER RESEARCH ALLIANCE CONFERENCE—NOV 8-10 2015


CANCERCARE MANITOBA RESEARCH DAY MAY 9TH, 2016

The organizing committee is excited to announce that the keynote speaker will be Dr Rosalyn Juergens from McMaster University. Dr. Juergens’ clinical expertise is in the area of lung cancer and esophageal cancer. Her area of research expertise is in functional imaging with FLT PET. Her other area of research has been in developmental therapeutics with a focus on epigenetics. Her work focuses on the inhibition of DNA methyl transferase and histone deacetylators as therapeutic options in oncology.
IN THE NEWS

The 3rd annual Mud Hero run took place on July 25th raising $15,000 for CancerCare Manitoba Foundation. As you can see from the before and after photos, Eilean had a lot of fun. Thank you to everyone who donated to support CCMF.

Kirk McManus’ research on chromosome instabilities in colorectal cancer was profiled by Biotek as his lab uses the Cytation 3 Cell Imaging Reader. “Using a well-known YouTube video as a simple analogy, Dr. McManus explains that his group is looking for the "Mentos that cause the aberrant 'gene' in Diet Coke to erupt".” http://bit.ly/1No6TCj

PUBLICATIONS


Aug 31
- Drummond Foundation
- Matsumae International Research Fellowship
- The Company of Biologists Travelling Fellowship
- LOI World Federation of Hemophilia
- FAAF Heart and Stroke Foundation of Canada—National New Investigator Award

Sept 1
- CCSRI Impact Grant
- LOI Kidney Foundation of Canada Biomedical Research Grant Competition
- Canadian Diabetes Association 2015 Research Competition
- Heart and Stroke Foundation of Canada—Grant in aid program
- Crohn’s and Colitis Research Foundation Innovation award

Sept 2
- FAAF American Thoracic Society Unrestricted Grant
- FAAF DoD—Lung Cancer Research Program Idea Award
- Lymphoma Research Foundation—Follicular lymphoma pathways grant
- Lymphoma Research Foundation—Clinical Investigator Career Development Award
- Lymphoma Research Foundation—Postdoctoral Fellowship

Sept 3—FAAF CIHR Operating grant Industry Partnered Collaborative Research

Sept 4—Genome Canada Disruptive Innovation in Genomics

Sept 7
- FAAF Canadian Glycomics Network Translational Funding Program
- FAAF Oncology Nursing Foundation 2016 Research Grant

Sept 9
- LOI Concern Foundation Conquer Cancer Now Award
- The company of Biologists Scientific Meeting Grant

Sept 10–European Commission Marie Sklodowska-Curie Global Fellowship

Sept 13—Canadian Glycomics Network Translational Funding Program

Sept 14—Heart and Stroke Foundation of Canada—National New Investigator Award

Sept 15
- FAAF DoD Cancer Research Program: Horizon Award
- Weston Foundation Neurodegenerative Disease of Aging Institute Rapid Response
- CIHR Foundation Scheme 2nd live pilot stage 1
- CIHR Human Frontier Science Program Research Grant
- CCSRI Travel Award
FUNDING OPPORTUNITIES

HTTPS://WWW.GOOGLE.COM/CALENDAR/EMBED?SRC=MANITOBAINSTITUTEOFCELLBIOLOGY%40GMAIL.COM&CTZ=AMERICA/WINNIPEG

- CIHR Pathways to health equity for Aboriginal people: Implementation team grant part II
- Oncology Nursing Society Foundation 2016 Research Grant

Sept 16
- FAAF CIHR Operating grant Canadian DOHaD Cohort Registry
- FAAF CIHR Knowledge to Action
- FAAF CIHR Doctoral Research Award
- FAAF CCSRI Innovation Grant
- FAAF CIHR Team grant: Environment and Health: Intersectoral Prevention Research
- Komen for the Cure Career Catalyst grant
- DoD Lung Cancer Research Program Idea Development Award
- American Thoracic Society Unrestricted Grant

Sept 17
- CIHR Programmatic Grants in Environment Genes and Chronic Disease
- CIHR Operating grant: Industry partnered collaborative research
- FAAF Kidney Foundation of Canada—2015 Biomedical Research grant

Sept 18
- FAAF NSERC Idea to Innovation
- Collaborative Research and Training Experience (CREATE) Program

Sept 23—Banting Post doctoral fellowship

Sept 24—FAAF Children’s Hospital Research Institute of Manitoba Small Grants

Sept 29
- DoD Cancer Research Program: Horizon Award
- NSERC Idea to Innovation (I2I)

Oct 1
- CCCSRI Innovation to Impact - LOI CIHR Team Grant: Environment and Health
- CIHR Doctoral Research Award - IODE War memorial PhD Scholarship
- FAAF CIHR Partnership for health systems improvement
- Cancer Research Institute Irvington Postdoctoral Fellowship
- CIHR Operating grant: Canadian DOHaD Cohort Registry
- CCSRI Innovation Grant
- FAAF Google Faculty Research Award
- NSERC/CIHR Collaborative Health Research Program
- CanFASD travel award
- CIHR Knowledge to Action
- Kidney Foundation of Canada Biomedical Grants
IT'S YOUR DUTY TO BE BOLD:
CHALLENGING CONVENTIONS
IN MEDICINE

Presented by: Ryan Zarychanski, B.Sc. (Med.), MD, MSc. FRCP(C)
Assistant Professor of Internal Medicine and Community Health Sciences, University of Manitoba
Hematologist, Department of Medical Oncology & Haematology, CancerCare Manitoba
Director of Knowledge Synthesis, Centre for Healthcare Innovation
Director of Clinical Apheresis, Winnipeg Regional Health Authority

THURSDAY, SEPTEMBER 3, 2015
FREDERIC GASPARD THEATRE
BASIC MEDICAL SCIENCES BUILDING

This annual lecture recognizes and honours Dr. Joseph Doupe's legacy within the University of Manitoba College of Medicine and spirit of enquiry he instilled in his medical students. Dr. Doupe, Professor and Head of the Department of Physiology from 1948 – 1966, served as an inspiration to all.

DR. RYAN ZARYCHANSKI
is an Assistant Professor of Medicine at the University of Manitoba with clinical specialties of hematology and critical care. He serves as the Director of Knowledge Synthesis at the Centre for Healthcare Innovation. A graduate of the B.Sc. (Med.) program at the University of Manitoba, he has been the recipient of a CIHR New Investigator Award, and the Department of Medicine's L. Murry Young Investigator Award.
Dr. Zarychanski's research explores hematologic aspects of critical illness, including the management of severe bleeding and transfusion practices, fluid resuscitation, and novel uses of an old anticoagulant in patients with severe infection. He is keenly interested in the nature of evidence, which has led him to leverage a variety of research methods to scrutinize accepted beliefs and conventions in medical practice.

SCHEDULE
10:30 a.m. – 11:15 a.m.
Top three B.Sc. (Med.) student presenters
Frederic Gaspard Theatre

11:20 a.m. – 11:50 a.m.
Awards Presentation
Frederic Gaspard Theatre

12 noon – 1:00 p.m.
Dr. Ryan Zarychanski presents the Joe Doupe Lecture
Joe Doupe Concourse

1:00 – 2:00 p.m.
Refreshments

Follow