Department updates

ICCI a big success!

Petrik lobbies for Cancer

Wellness@Work update

Kata and Tamas farewell

Bio-med Grad Bash!

"Actual" Hippo signalling!

Grad Research Day

And much more...

One Health on our mind

As the Dean eluded to in his community meeting, One Health is a part of all strategic planning initiatives at OVC. Our department is clearly a leader in the Comparative and Translational One Health Research Theme. Please read the end of this newsletter to find numerous examples of the stellar collaborative projects that our faculty have with health care facilities in and around our region. You will truly be amazing at the extent of our clinical connections!
Congratulations to Dr. Brenda Coomber who helped organize another successful annual Cancer Research Symposium!

The Keynote Speech was given by Dr. Daniel L. Gustafson, Shipley University Chair in Comparative Oncology; Professor of Pharmacology & Biomedical Engineering; Director of Research, Flint Animal Cancer Center; Director, UCCC Pharmacology Core; Colorado State University

Andrew Poon, MSc candidate with Dr. Tony Mutsaers was chosen to deliver an oral presentation at this year's event.
Dr. Jim Petrik joined members of Ovarian Cancer Canada to meet with MPs at Parliament Hill on June 5th to lobby for $10 million in increased funding for Ovarian Cancer research. At the end of a full day of meetings, Jim was fortunate to meet with the Federal Health Minister, the Honourable Ginette Petitpas Taylor. In the photo, from left; Margaret Megelas (Ovarian Cancer Survivor), Jim Petrik, Member of Parliament Eva Nassif, Jennifer Laliberte (Ovarian Cancer Canada), and the Hon. Ginette Petitpas Taylor.

Dr. Barbara Vanderhyden (Ottawa Hospital Research Institute, and Dr. Trevor Shepherd, (Western University) were the two other ovarian cancer scientists that joined the group for the Lobby Day on June 5. Jim collaborates with both of them fairly extensively and currently shares a Catalyst Grant from Western with Trevor.
Kata and Tamas's farewell celebration

Thanks to Monica and the RBL staff as well as the Petrik lab for organizing a farewell celebration to thank Kata Osz for her invaluable assistance over the years to the Petrik lab specifically, but also to all graduate students passing through the RBL.

Kata and Tamas, you will both be missed!

Best of luck in your new home in Calgary!
Bio-Med Grad Bash Award ceremony

Thanks to Kim Best for organizing another successful undergraduate award ceremony to honor the recipients of the Department of Biomedical Sciences awards. Plaques inscribed with the award winners are displayed in the display case outside the Chair's office.
Dr. Frank Barry presents at CTRMN

Dr. Frank Barry is Professor of Cellular Therapy at the Regenerative Medicine Institute (REMEDI), National University of Ireland Galway. His work is on the development of new repair strategies for musculoskeletal conditions, especially osteoarthritis. His talk was hosted by The Comparative and Translational Regenerative Medicine Network (Directed by Dr. Thomas Koch) with support from the Department of Biomedical Sciences.
Now that's what I call "Hippo signalling..."!

A HUGE thanks to our Anatomy team (Roman Poterski, Dave Robinson and Sarah Donato (Summer Assistant in Anatomy lab)) for their great work in getting our donated hippopotamus cadaver cleaned and ready for class!

Roman and Sarah proudly displaying the hippo skull (top and bottom jaw separated). Compared it to the horse skull beside the wall in lower picture (cow in picture is NOT to scale... but Roman and Sarah are!).
Graduate Studies Research Day

Congratulations to all who participated in this year’s annual Graduate Studies Research day. Biomed graduate students made an excellent showing and you all represented the department well. A special congratulations goes out to our award winners:

Left to right: Roxanne Hummel, Biomedical Sciences; Shannon French, Pathobiology; Ellie Milnes, Pathobiology; Alisha Matte, Population Medicine; Andrew Poon, Biomedical Sciences; Ari Mendell, Biomedical Sciences.

First prize MSc Posters
Angela Saleh, Biomedical Sciences

Second Prize MSc Posters
Samira Rezaei, Biomedical Sciences

First Prize MBS Posters
Roxanne Hummel, Biomedical Sciences

First Prize MSc Orals
Andrew Poon, Biomedical Sciences

First Prize PhD Oral
Ari Mendell, Biomedical Sciences

Way to sweep the top awards Biomed!!
New Faculty recruitment underway in July!

The department is privileged to be able to recruit a high-caliber research scientist to grow our expertise in **Comparative and Translational One Health Research in Biomedical Sciences**. We have over 50 high-quality applicants from all over the world, and we will begin the very difficult task of creating a short-list of 3 or 4 candidates to interview. The interviews will likely be held in mid-to-late July/early August. I hope you will all make every effort possible to attend the research and teaching seminars, but also the individual meetings with faculty, staff and students.

**Your opinion and feedback matters!** All faculty, staff and students are encouraged to write feedback on the applicants and provide it to anyone on the search committee. Again, the committee is composed of **Drs. Glen Pyle, Thomas Koch, Jon LaMarre, Jibran Khokhar, Sarah Wooton and Anita Luu.**

I look forward to seeing you all at the talks!
Newsworthy items from around the department

Martino lab:
1. June 3rd was “Ride for Heart” and 18 Biomeders (Tami Martino, Priya Mistry, Cristine Reitz, Del Fernandes, Vishali Balasubramaniam, Viola Kajendrakumar) and other cardiovascular researchers across UGuelph raised $3850.00 for Heart and Stroke Foundation. The event was bike riding or walking or running on the Gardiner Expressway, Lakeshore and Don Valley Parkway in Toronto.

Biomeders attended the Heart Failure Summit in Toronto.

(Left to Right = Cristine Reitz, Jessica Joshua, Priya Mistry, Janet Parr, Del Fernandes, Sidra Sarfaraz).
Cristine Reitz, PhD student from the Martino lab was an Invited graduate student to the Sleep 2018 meeting in Baltimore Maryland. While there she participated in the “2018 International Biomarkers Workshop on Wearables in Sleep and Circadian Medicine” and networked with leading laboratories from across the world.

(2018 Wearables Group).

Khokhar lab:
1. Jibran chaired a symposium at the Research Society on Alcoholism titled: "Drinking Buddies: Neurobiology of Alcohol Use and Co-Occurring Disorders" with Drs. Anna Lee (University of Minnesota), Jeff Weiner (Wake Forest), Lara Hwa (University of North Carolina-Chapel Hill) and Anh Le (CAMH)
2. **Jibrán** also presented at this symposium giving a talk titled: "Impaired Brain Reward Circuitry May Underlie Alcohol Drinking in a Rat Model of Schizophrenia and Co-Occurring Alcohol Use Disorder".

**University Research Award - Research Excellence Award Special Recognition Prize**

Among the 7 Young Investigators from each College that received a Research Excellence Award last year, **Dr. Thomas Koch** was selected as the one person this year to receive a Special Recognition Award from among these exceptional awardees...**congratulations Thomas**, a well-deserved recognition of your continued research productivity and impact!
Comparative and Translational One Health Research in Biomed

**Jibran Khokhar:**
Iris Balodis (Boris Centre for Addictions, Department of Psychiatry): Cross-species study of the developmental effects of cannabis exposure on reward processing.
Michael Amlung (Michael G Degroote Centre for Medicinal Cannabis, Department of Medicine): Neuroimaging based study of the neurobiological basis of co-occurring substance use and schizophrenia.
Current CIHR application round (July 2018 competition)

**Tarek Saleh:**
Michel Rathbone and Shucui Jiang, (Division of Neurology, Department of Medicine): Role of Guanosine as a neuroprotectant in stroke and spinal cord injury.
Michael Noseworthy (Division of Radiology and Medical Physics): T2DWI using Semens MRI for imaging rodent models of stroke (custom build of a rat adapter for human MRI machines).
Current CIHR application round (July 2018 competition)

**Jim Petrik:**
Adjunct Faculty Appointments at McMaster University – Clinical Professor, Department of Obstetrics and Gynaecology, Faculty Of Medicine and Western University – Professor, Department of Experimental Oncology, Faculty of Medicine
Collaborative Projects at McMaster University with Dr. Allison Holloway – Ovarian Dysfunction in offspring subjected to maternal undernutrition (10 co-authored publications; 1 co-authored operating grant (CIHR; $295,000; 2013-2016)); Dr. Deborah Sloboda – Reproductive disorders following alterations in the maternal uterine environment (4 co-authored publications)
Western University: Drs. Trevor Shepherd and Gabe DiMattia – Mevalonate pathway activation in advanced stage ovarian cancer (1 co-authored publication; 1 co-authored operating grant (to Drs Shepherd and Petrik; $25,000 catalyst grant from Western Univeristy; 2018))
University of Toronto: Dr. Ted Brown – Matricellular Proteins in Ovarian Cancer (2 co-authored publications; 1 co-authored operating grant (CIHR/NSERC CRD grant; $365,000, 2014-2017)).

**Brenda Coomber:**
Adjunct Professor in the School of Pharmacy, University of Waterloo.
Several current collaborations and studies with a Canadian company involved in the human cancer diagnostic/prognostic space, with direct animal/human links- they are using cancer in dogs to expand and validate their cancer in human work.

**Neil MacLusky:**
McMaster (Dr. Margaret Fahnestalk, Faculty of Health Sciences, Department of Psychiatry and Behavioural Neurosciences)- 2 year Catalyst grant from CIHR (June 2018-2020; $75,000 per annum) on "Sex-dependent systemic autoimmunity in a mouse model of Alzheimer’s disease".
Glen Pyle:
1. Title: Development of peptide-based therapies to treat myocardial infarctions and ischemic heart failure. (Patent application under review).
   Collaborators: Dr. Nir Qvit, Faculty of Medicine, Bar-Ilan University, Israel; Dr. Daria Mochly-Rosen, George D. Smith Professor in Translational Medicine, Department of Chemical and Systems Biology, Stanford School of Medicine, Stanford University.
2. Title: CapZ regulation in a pre-clinical model of ischemic heart failure and the impact of stem cell therapy on myofilament function.
   Collaborators: Dr. Brian Weil, Jacobs School of Medicine and Biomedical Sciences, SUNY Buffalo.
   Description: Pigs subjected to myocardial infarctions were treated with stem cell therapies designed by the Weil lab. Pyle lab has collected myocardial samples for molecular analysis and the identification of potential therapeutic targets. Translation to humans suffering heart attacks and an investigation of stem cell therapy.
3. Title: Cardiac myofilament regulation through the Z-disk in human heart failure patients.
   Collaborators: Dr. Cristobal Dos Remedios, Anatomy & Histology, School of Medical Sciences Bosch Institute, University of Sydney Medical School.
   Description: Dr. Dos Remedios has a tissue bank of human heart failure samples. Myocardial samples were provided to Pyle lab to validate findings from murine and canine studies with the objective of validating potential therapeutic targets for ischemic and dilated cardiomyopathies. Translation to humans and dogs with heart failure.
   Collaborators: Dr. Mike Regnier, Department of Bioengineering, Colleges of Engineering and Medicine, University of Washington.
   Description: Tested a novel therapeutic strategy for the treatment of dilated cardiomyopathy. Pyle lab collected samples from dogs with dilated cardiomyopathy and a pre-clinical study validating the strategy was published. Translation to humans and dogs with heart failure.
5. Title: Sex hormones and the heart.
   Collaborators: Dr. Susan Howlett, Department of Pharmacology and Department of Medicine (Geriatrics), Faculty of Medicine, Dalhousie University
   Description: A series of studies investigating the role of estrogens, progesterone, and testosterone in combination with ageing and gonadal failure (i.e. ovariectomy, models of menopause, castration, etc.). Studies have investigated functional alterations in normal, ageing animals, as well as altered physiological states like pregnancy. Translation to humans with heart failure; ageing humans and animals.

Laura Favetta and Jon LaMarre: Numerous ivf clinics in Toronto, Hamilton.
As usual, my door is always open...

so pop in for a chat anytime!!

Tarek Saleh
Dept. Chair