

THE BIOMEDER

THE OFFICIAL NEWLETTER FOR THE DEPARTMENT OF
BIOMEDICAL SCIENCES



Department updates

Welcome **Dr. Giannina Descalzi**

Petrik's CIHR success!

Allan's Emeritus!!

Congrats to Profs **Martino & Madan!**

Charly's CALAS award

SSR meeting in San Jose

Graduate Student Corner

...and much more!

Another month of celebrating research excellence!

As you will read in this month's edition, the department has even more reasons to celebrate our research accomplishments. I use the term "our" accomplishments as, even though these honors/awards are to individuals, they could not have achieved their success and recognition without the tremendous support of their graduate students, staff and faculty colleagues.

Keep up the great work Biomed!

Welcome Giannina!

Starting on August 1st, **Dr. Giannina Descalzi** has joined the Department. Giannina obtained her BA from the University of Guelph, and then went on to the University of Toronto to complete her MSc and PhD in Neuroscience. Giannina joins us from her prestigious Banting postdoctoral fellowship position at NYU. Giannina was recruited into a faculty position in *Comparative and Translational One Health* research.



Giannina's lab investigates the molecular, cellular, and genetic mechanisms involved in chronic pain development and maintenance. Research focuses on the intersection of pain and emotion, and bridges animal models of chronic pain with molecular biology and systems neuroscience to enhance our understanding of chronic pain, mental health, and circuit-wide gene function.

Nearly one in five Canadians suffer from chronic pain, with over sixty percent experiencing depression, anxiety, and significant reductions in physical and social functioning. Chronic pain is also present in companion and production animals, and unrelieved pain is amongst the most common reason for their euthanasia. Human and animal studies show that persistent pain corresponds with long-term changes of cellular activity within brain regions involved in sensory perception and emotional responses, and we have shown that chronic pain induces changes in gene expression that resemble that of depressed patients.

Giannina's lab methods span behavioural neuroscience, molecular biology, high throughput RNA-sequencing, bioinformatics, viral mediated gene transfer, and chemo-genetics. Her team aims to address the urgent need for the development of novel therapeutic strategies to clinically alleviate chronic pain symptoms, and seeks to answer two main questions: 1) How do distinct brain regions interact to generate the conscious experience of pain? 2) What are the changes that occur at the molecular, cellular, and circuit level, that take place during the transition from acute to chronic pain?

Please join me in welcoming Giannina to Biomed!

Dr. Jim Petrik Receives \$631,131 from CIHR

I am extremely pleased to announce that **Dr. Jim Petrik** received a CIHR project grant worth over \$631,000 for 5 years.



Jim's proposal will continue on the theme of adjuvant therapy along side traditional chemotherapy for numerous types of solid tumors that rely on the vasculature. Fc3TSR-induced vascular normalization can overcome several of the most critical impediments to effective cancer therapies. Currently, therapies have to overcome: reduced vascular perfusion, tissue hypoxia, elevated IFP that impedes entry of compounds and cells into the tumor, the presence of an immunosuppressive environment, and impaired lymphatic drainage and migration of DCs to draining lymph nodes, resulting in reduced tumor-specific immunity. Jim's research will provide evidence to support the hypothesis that Fc3TSR will overcome all of these barriers and significantly improve efficacy of a host of therapies when used in combination.

CONGRATS JIM!!

Dr. W. Allan King recognized for his outstanding contribution to Academia!

On behalf of the department, I wish to sincerely congratulate **Dr. W. Allan King** on achieving the University of Guelph's highest honour for an academic, the awarding of the title of **University Professor Emeritus**.

As quoted by the President "*This nomination was made in recognition of your contributions to the international scientific community through your research in the areas of cytogenetics and embryo biotechnology . You have helped to raise the profile of the Ontario Veterinary College, and I am pleased to know that you will continue to build on your research and education of graduate students at the University of Guelph.*". The normal practice is to confer the honour at a convocation ceremony in October or June.

On behalf of the department, I am honoured and privileged to have Allan continue his contributions to Biomed, and especially grateful to call him a colleague and friend.

Allan will now join other faculty in the department with this distinction:

**Drs. J. Raeside, Betteridge
Leatherland,
and Summerlee.**

Congratulations Allan!



Drs. Tami Martino and Pavneesh Madan promoted to full Professor!

On behalf of the department, I wish to sincerely congratulate **Drs. Tami Martino and Pavneesh Madan** on the University's recognition of their outstanding achievements in Teaching, Research & Service by promotion to Full Professor. This is a tremendous accomplishment in their respective academic careers, which is a testament to their previous accomplishments as well as their continued commitment to excellence in their teaching and scholarly work.

Congratulations Tami and Pavneesh!



Tami's Gordon Conference

Dr. Tami Martino was very honoured to be an Invited Speaker to the Gordon Chronobiology Conference in Spain, July 2019.



This international forum focusses on the newest and most exciting cutting-edge frontiers in research. Tami presented on Circadian Medicine for Treatment of Cardiovascular Disease; members of the Martino laboratory are pioneering this novel field of research that will significantly benefit the health of animals and humans. Conference attendees included Nobel Laureate Dr. Michael Rosbash – posing in the photo above!

Graduate Student Corner



Charly's CALAS Award

Charly McKenna (MSc with Dr. Tony Mutsaers) won a pretty awesome award at the end of May during the 58th Annual Symposium Canadian Association of Laboratory Animal Science Symposium in Vancouver.

<https://calas.in1touch.org/site/awards/presentation/pharmacal?nav=sidebar>

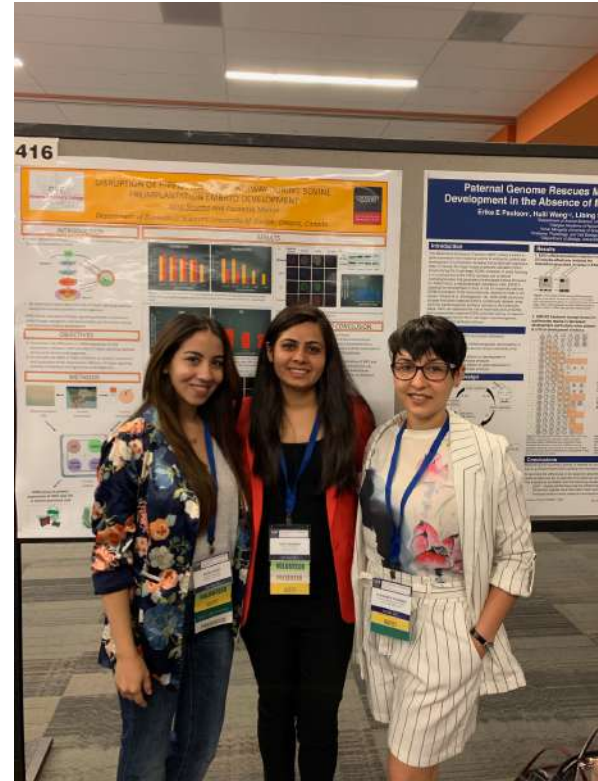
Pharmacal “Best in Show” Award recognizes the conference “favorite” (out of all workshops, posters and presentations) for her talk “A Truly Open Door Policy presentation. We are lucky at the University of Guelph to be in an environment where we can openly discuss how animals are used in research. Every year, we celebrate the use and exceptional care of these animals and facility standards here at Campus Animal Facilities with our Annual CAF Open House event. We also offer tours throughout the year to various public groups. Charly's presentation shared these experiences and how other facilities can adopt similar strategies for transparency and outreach.



Back at the SSR?

Okay, maybe I'm the only one old enough to remember the song by The Beatles ("*back in the USSR*"), but that probably wasn't on the minds of the Biomeders who were in San Jose, California attending the **Society for the Study of Reproduction (SSR)** meeting.

Seems like a great time had by all!



L to R: **Deirdre Stuart** (LaMarre lab), **Jyoti Sharma** (Madan lab), **Tammi Toorani** (Favetta/Mastromonaco lab) and **Reem Sabry** (LaMarre/Favetta lab)

Guess who?



NEW O.V.C. FACULTY MEMBERS

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NEW O.V.C. FACULTY MEMBERS

From left to right, P. W. Pennock, D.V.M., J. D. Mongeau, B.A., D.V.M., M.V.Sc., R. B. Miller, B.Sc., D.V.M., M. Savan, B.S., D.V.M., M.S., Ph.D., J. I. Raeside, B.Sc., M.S., Ph.D. Drs. Pennock and Miller have been appointed to the Department of Medicine and Surgery and graduated from the Ontario Veterinary College in June of this year. Dr. Mongeau who is a graduate of the University of Montreal, and Dr. Savan who has been with the United States Department of Agriculture Plum Island Laboratory have accepted positions in the Department of Pathology and Bacteriology. Dr. Raeside, who has lectured in the University of Saskatchewan and the University of New Zealand has joined the faculty of the Department of Physiological Sciences.

This picture was taken from the 1958 OVC Bulletin (Vol 8, No.4, p.20) picturing a very dapper **Dr. James (Jim) Raeside** who is celebrating his 61st year at OVC.

Congrats Jim!!

Upcoming events

Lisa Reynen, MSc candidate:

Effects of Branched Chain Amino Acid Transaminase 1 in
Claudin-low Breast Cancer

Date: **Thursday, August 8, 2019 - 09:00**

Location: **Room 1642**

Danielle Halucha, MSc candidate

Asymmetrical Limb Loading in Thoroughbred Racehorses as a
Possible Cause for Injury

Date: **Tuesday, August 13, 2019 - 09:00 to 10:00**

Location: **Room 1642, Biomedical Sciences**

Summer CORE Program Poster Presentations

The 2019 poster presentations are August 13th in the OVC Cafeteria. Summer CORE Program students share project advancements and results with colleagues and the OVC community from **10:00 AM until 3:00 PM in OVC**. From noon until 1:00 pm there will be a BBQ for all summer students and their advisors. Faculty, funding agency representatives and graduate students are invited to act as evaluators, reviewing the scientific and educational poster projects in a number of criteria including clarity, overall design, and the student's ability to present the information. If you would like to join the evaluation team please email Elizabeth Lowenger.

The day will officially wrap up with an awards presentations for posters at 3:30 PM. All Summer CORE Program participants and their advisors and funders are welcome. Please RSVP to Elizabeth Lowenger.
<https://ovc.uoguelph.ca/core/poster>

Date: Tuesday, August 13, 2019 - 10:00 to 15:00: Location: LLC

Upcoming events



Dinner + Horse Racing + Slots' \$28

includes: Buffet dining in the Captain's Quarters tiered diningroom, with an awesome view overlooking the race course, and a TV at every table

Coffee, Tea & Soft Drinks

Live horse racing and a race named in your group's honour

A group photo (for up to 15 people) with the winning horse of your race

Race program (18+). Meal tax and gratuity

please confirm with Kim by Thursday August 15th.

As usual, my door is always open...



so pop in for a chat anytime!!

Tarek Saleh
Dept. Chair