

THE BIOMEDER

UNIVERSITY
of GUELPH

The official newsletter of the Department of Biomedical Sciences



IN THIS ISSUE

JIBRAN IN THE SPOTLIGHT

**THOMAS TALKS
CRYOPRESERVATION**

**GIANNINA AND SARAH
LEPAGE AWARDED
RESEARCH FUNDING!**

JIBRAN'S GRANT SUCCESS!

**RETIREMENT
ANNOUNCEMENT**

**REPRO AND NEURO
RESEARCH DAYS
AND MUCH MORE!!**

Keep on keeping on Biomed

How is it August already??!!! I guess time flies when you're in isolation. As we officially phase in our research programs, I want to welcome some of you back to the "*Department of Biomedical Sciences: COVID-EDITION*". What you will notice as you walk through the halls is signage reminding you to practise safe distancing, mandatory mask covering when in public/multi-use spaces and bathroom access procedures. I want to ensure everyone who has returned to work that your safety is our top priority. As the Back-to-work committee continues to ramp up, we will provide greater detail in regards to your personal health & safety on campus.

**Keep safe and keep smiling
Biomed!**



Jibran's publication in the Spotlight!

Dr. Jibran Khokhar's
paper was included in the
Featured Research
Spotlight at *eNeuro* for
the month

[https://www.eneuro.org/
content/featured-research](https://www.eneuro.org/content/featured-research).

Of particular relevance
was the first author of this
paper was an
undergraduate research
project student (Karling)!!



**Prof. Jibran
Khokhar**

*"An Open Source Automated Bar Test for
Measuring Catalepsy in Rats."*

Luciani KR, Frie JA, Khokhar JY. *eNeuro.*, 2020
Congrats Jibran et al.,!

Publications from around the Dept this month...

Repeated trans-cervical embryo recoveries in Santa inês ewes subjected to short- or long-term superovulatory treatment regimens. M.E.F. Oliveira,* , F.N. Zambrini, J.M.G. Souza-Fabjan, **P.M. Bartlewski**, J.D. Guimarães, F.Z. Brandão, J.F. Fonseca. *Animal Rep. Sci.*, 217:2020.

An Overview of the Sociological and Environmental Factors Influencing Eating Food Behavior in Canada. Massimo F Marcone, **Pavneesh Madan**, Bernard Grodzinski. *Front Nutr.* 2020, 3;7:77.

doi: 10.3389/fnut.2020.00077. eCollection 2020.

Synaptic Effects of Estrogen. **Kate Nicholson, Neil J. MacLusky** and Csaba Leranth. in *Vitamins and Hormones* 114 "*Hormones and Synapse*" pp 167-210, August 2020.

High-dose adolescent nicotine exposure permits spontaneous nicotine self-administration in adult male rats. **Briana Renda***, **Allyson K. Andrade***, **Jude A. Frie***, **Cassandra L. Sgarbossa**, Jennifer E. Murray, **Jibran Y. Khokhar** (* equal contribution). *Drug and Alcohol Dependence* (Accepted)

Adolescent Substance Use and the Brain: Behavioral, Cognitive and Neural Correlates. **Shahnaza Hamidullah, Hayley H. Thorpe, Jude A. Frie, Richard D. McCurdy and Jibran Y. Khokhar**. *Frontiers in Human Neuroscience* (Accepted)

Congrats everyone and keep up the great work!!

Thomas interviewed by "HorseTalk"

Can cryopreservation of equine stem cells work for cartilage repair?

Researchers at Equine Guelph in Canada have received funding for a preliminary study into the feasibility of successfully freezing equine cartilage stem cells.

Cryopreservation is the next exciting stage of research in stem cell therapy. **Dr Thomas Koch** and his team are working to preserve cartilage chips for long-term storage, which would enable off-the-shelf use to treat localized cartilage defects. Such defects very often shorten or end horses athletic careers.

Cryopreservation (or vitrification) is the formation of a solid from an aqueous solution without the formation of ice crystals. Using cartilage chips created from equine umbilical cord blood, this next stage in research has the potential to change the way cartilage defects are treated.

If cryopreserved, stored cells can be used; treatment would be very efficient, with no need to harvest stem cells from the patient. This means fewer visits, less waiting and faster treatment.

You can read the full story (or watch his interview!) here:

<https://www.horsetalk.co.nz/2020/07/03/cryopreservation-equine-stem-cells-cartilage/>

Congrats Thomas!



Giannina and Sarah awarded research funding

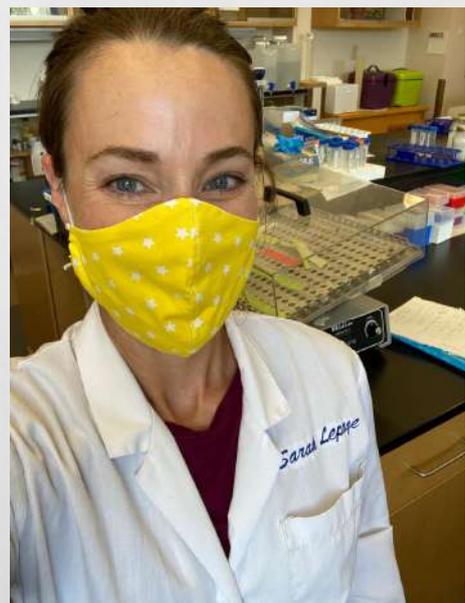
The Azrieli Foundation launched a strategic initiative entitled: "*Back on Track from COVID-19*" to enable investigators to return to research and recoup some of the losses due to the COVID disruption.



I am proud to announce that **Dr. Giannina Descalzi** was one of those recipients. Her application "*Lactate from astrocytes: a critical energy source for learning-induced translation in memory*" will allow her to continue her ground-breaking research in which she was just about to capture her first set of samples before the pandemic hit. This funding will assist Giannina in her return to her logarithmic rise in research productivity.

Congrats Giannina!

*More funding success news....***Dr. Sarah LePage** was awarded her first grant as a Principle Investigator! The OVC PetTrust Foundation has funded her project that will involve the derivation and characterization of mesenchymal stromal cells from canine embryonic stem cells. Dr. Thomas Koch, Dr. Keith Russell, and Dr. Dean Betts (Western; adjunct faculty in Biomed) will also be involved as co-investigators.



Congrats Sarah!

Jibran awarded an *NSERC Alliance* *AND CIHR Catalyst Grants!*



Dr. Jibran Khokhar was successful in his application for an Alliance Grant (ALLRP) entitled "*Harnessing the Power of Cannabinoids to Reverse Cannabis-induced Toxicosis in Pets*", with Avicanna Inc. Total amount awarded is \$222,784 over 2 years (not including in-kind).

In addition, Jibran was also successful in obtaining funding through a **CIHR Catalyst grant** for his vaping research (*application ranked 3rd in the competition*)!

Congrats Jibran, keep up the great work!!

Neuroscience Research Day, 2020

A very impressive "virtual" showing from Biomed happened at this year's Neuroscience Research Day. The keynote speaker was Marina Picciotto, the Editor in Chief of J Neuroscience. Organizers included **Jibran Khokhar** and **Giannina Descalzi**.

Please join me in congratulating the winners and honourable mentions of the poster competition!

Undergraduate student winners from across the sessions:

First place: **Yasmine Al-Sabagh** from *Jibran Khokhar's lab*

Second place: **Anthony Nguyen** from *Craig Bailey's lab*

Third place: Kristen Ashworth from David Wright's lab

Graduate student winners - top selected from each session with scores determining placement:

First place: Emma Plater from Leah Bent's lab

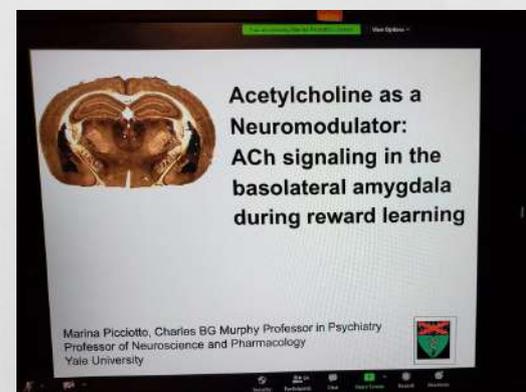
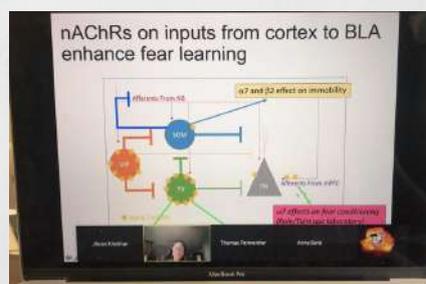
Second place: Kristen Jardine from Boyer Winters' lab

Third place: **Yi Fan Liu** from *Matthew Vickaryous' lab*

*Graduate student honourable mentions: **Aariez Khalid** from Craig Bailey's lab*

Enormous gratitude goes to our judges, Fiona James, **Matt Vickaryous**, Georgia Mason, **Jessica Woodman**, Julia Luca, and our newest neuroscience faculty member, Shaun Sanders, for taking the time to dedicate to our students (*and in Matt's case, even missing his own student's winning presentation!*).

And finally, we thank you all for contributing to such a wonderful and exciting day of celebrating neuroscience at the University of Guelph!



Edgardo Reyes to retire August 31st!!



It is with mixed emotions that I announce the retirement of **Edgardo Reyes** (Ed) effective August 31st. Ed has been an asset to the department, in particular to Dr. Pari Brasrur (pictured above), and then upon her retirement, to the Reproductive Health & Biotechnology lab on the 3rd floor. Ed has run an efficient sterilization suite and has helped countless graduate students with their procurement needs. In teaching, Ed was instrumental in assisting our faculty run the laboratory sessions and modules for BIOM*3040, BIOM*6110 and VETM*3390.

Ed has been in the department since 1971. **Congratulations Ed** on entering this next phase in your life! We cannot thank you enough for the incredible 49 years you have devoted to Biomed!

Another milestone to celebrate!



Our own **Kim Best** (aka. "Kimmmy", "Kimberly Irene Best" or "the Llama") celebrated over 35 years on the job. **Congrats Kim**, we could not have done all we have without your amazing, knowledgeable and always professional assistance. You truly are "*the BEST*"!

Vickaryous lab ... up the creek...with a paddle!



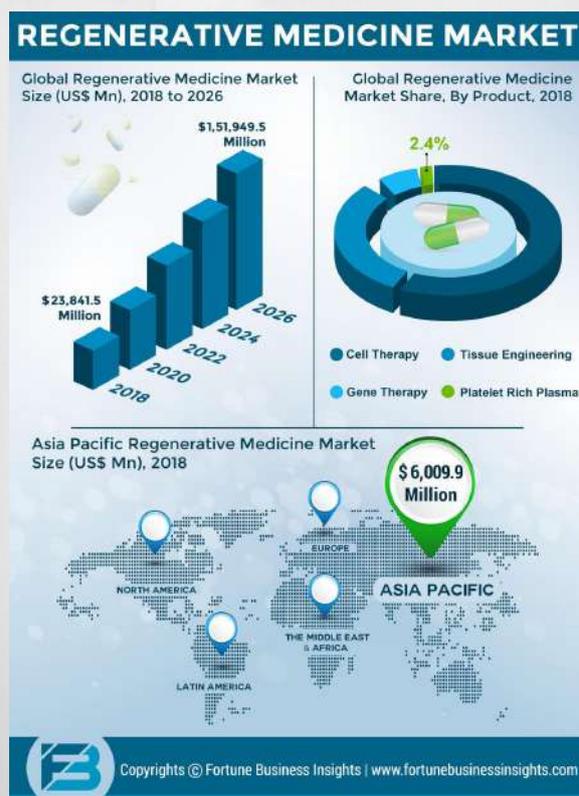
Dr. Matt Vickaryous's lab had a little social distancing fun while canoeing down the river.

A great time had by all!

Training Program in Regenerative Medicine Course: Open to Ontario HQP

The Training Program in Regenerative Medicine, sponsored by the Ontario Institute for Regenerative Medicine (OIRM) is pleased to offer a multi-disciplinary course in the field of regenerative medicine in 2020-2021 and can be taken for credit (1.0) towards a Master's and/or PhD degree by trainees across Canada (or through audit for those interested). The course will start **September 10, 2020** and is hosted by the University of Toronto's Institute of Medical Science (MSC7000Y). It will be delivered online due to COVID-19. *Space is limited!*

Please contact **Dr. Lepage** for more information.





I'm back!! I will try to be in my office from 8am-12pm every day in case any issues arise as you phase back into research. **Please** do not hesitate to knock on my door (with your mask!) or contact me by email if you have ANY questions/concerns at **tsaleh@uoguelph.ca**

Stay safe, stay well
We got this Biomed!!
#biomedstrong