

Last day of fall semester is only one month away!

BIOBEAT

Nov 9, 2020

What does it mean to develop 'immunity' to COVID-19? Read about it [here](#).

Biology's first Canada Research Chair!

I'm devoting this issue to congratulate Dr. Mike Asmussen as he was recently awarded a Canada Research Chair. This is the first of these positions ever in Biology at MRU and it's an important step forward for highlighting our Department's scholarly pursuits. I think it's best to leave it to Dr. Asmussen to describe what a Canada Research Chair is and give a more detailed explanation of the work he'll pursue. Take it away, Mike!

What is a Canada Research Chair (CRC)?

The CRC program was launched in 2000 with the vision to make Canada one of the best countries in the world for research and development. The goal of the program is to provide resources to attract and retain top researchers to provide exceptional research training at Canadian universities.

What do I research?

My research program focusses on how the foot and ankle are essential for us to walk and run. Although walking and running seem like very mundane movements to perform, they are actually really difficult to execute if you consider the coordination required across the nervous, muscular, and skeletal systems. When people experience a musculoskeletal or neural impairment that affects their foot and ankle, their ability to walk or run is severely compromised. Therefore, my research seeks to understand the structure, function, and neural control of the foot and ankle during locomotion in healthy, injured, and diseased states. The one issue with under-

Remember summer?



standing the foot and ankle's role in locomotion is that these structures are really complex (e.g., 26 bones, 33 joints, 100+ ligaments, muscles, tendons)! Because of this complexity, I use a combination of biomechanical tools, physiological measures, computational modelling, and simulation techniques to answer my research questions. The end goal of my Canada Research Chair program is to translate research outcomes into innovative healthcare solutions, such as biofeedback systems or participant-specific bracing solutions aimed at improving stabilization of the foot and ankle and hence, a person's ability to safely walk and run.

This research sounds interesting. How can I get involved?

If you find this research interesting, feel free to send me an email at masmussen@mtroyal.ca. I am always open to chatting about anything related to research.

AND A LITTLE MORE ABOUT MIKE ASMUSSEN

What would you do if you weren't teaching at MRU?

Be a craft brewer. Beer brewing has a lot of attributes of being an instructor/researcher - creativity, independence, social. If I was a craft brewer and asked the same question, I would probably say I would rather be a researcher. The grass is always greener.

What course did you do the LEAST well in during your undergrad?

Rhetoric. The class was early in the morning (I wasn't a morning person then) and I didn't like writing that much. Now, I love to write and I always have a little internal sense of joy when someone compliments me on my writing because I know how far I have come.

Reach out to your instructors now if you're struggling with course work - don't leave it to the end of the semester!