THOUGHTS FROM THE CHAIR

As we launch this first edition of "Kin the News", I find myself reflecting on what it means to me to be part of the McMaster Kinesiology family. My journey in Kinesiology started in 1993 and, to be honest, I can hardly remember a time when McMaster Kinesiology was not part of my life. I transitioned into the role as Chair of the department this past July and over the last five months I've been reminded why it's so special to be part of this department. We pride ourselves on being recognized as one of the best Kinesiology programs in the country and, in fact, we were recently ranked 18th in the world by ShanghaiRanking. These kinds of metrics validate our efforts in trying to deliver a world-class program.

But it’s not the external recognition that makes McMaster Kinesiology an exceptional program at an exceptional institution. It’s the collective of individuals, past and present, from our undergraduate to our graduate students, our staff and our faculty. It’s the leaders, before me, who paved the path to excellence. Our reputation precedes us and now is the time to meet the members of our family and celebrate their successes. In each edition of our newsletter, you will read about individuals who contribute to our culture of excellence, you will learn about recent successes and achievements, and I hope you will feel the same pride that I do knowing that, together, we are all a part of it.

UNDERGRADUATE Highlight

"The enthusiastic and supportive environment from everyone within the Kinesiology department is what makes this program special. Everyone from our professors to the administrative staff and TAs are always willing to offer their assistance and guidance to help us succeed." - P. Drakos, 2021

Paul is a second-year student and an active member of the Kinesiology program representing the program as a Big Blue and Mac Kin Mentor. On campus, Paul is also the VP Communications Executive for the McMaster Model United Nations Club. Over the years, Paul has led several initiatives to help underprivileged children, including a buddy program, connecting students from Adelaide Hoodless Elementary School with students from his high school to promote exercise and fitness through the teaching of sports skills. Over the summer, after learning about the wildfires that devastated the entire town of Lytton BC, Paul led an initiative to raise money to purchase backpacks and school supplies to help the students get prepared for school. Through his efforts, Paul raised enough money to purchase backpacks and school supplies to support all the students in the town. His initiative was highlighted in an article by the CBC. [https://www.cbc.ca/news/canada/british-columbia/lytton-school-supplies-wildfire-1.6171364](https://www.cbc.ca/news/canada/british-columbia/lytton-school-supplies-wildfire-1.6171364)
"The Kin department at Mac has allowed me to learn from and be challenged by some of the most brilliant people I have ever met. I am grateful for the opportunity to continue to grow as a thinker and be critical of the world around me." - S. Harris, 2021

Sheereen Harris (she/her) is currently a 4th year PhD candidate studying under the supervision of Dr. Steven Bray. Her research uses behavioural economics to examine the effects of mental fatigue on decision-making related to exercise and physical activity behaviours. Sheereen is heavily involved with service work including graduate student coordinator and mentor with the Black Student Mentorship Program, Equity, Inclusion, and Anti-Racism lead in the Department of Athletics and Recreation, Co-Chair for the Equity, Diversity, and Inclusion Task Force for the North American Society for the Psychology of Sport and Physical Activity and recently served as student representative on the Faculty of Science Black Faculty Cohort Hire. In 2020, Sheereen initiated and led the Kinesiology Community Outreach Committee, an initiative aiming to make Science and the field of Kinesiology more accessible for underserved and underrepresented youth from local Hamilton schools.

"This is my dream job! Working with incredible people, mentoring, and inspiring the next generation to think more holistically about health — it’s not just about the body but the mind too." - J. Heisz Nov. 2021

Dr. Jennifer Heisz is a Canada Research Chair in Brain Health and Aging, Associate Professor in the Department of Kinesiology, and Director of the NeuroFit Lab (www.neurofitlab.com). Her research examines the effects of physical activity on brain function to promote mental health and cognition in young adults, older adults and individuals with Alzheimer’s disease. Recent honours include receiving an Early Researcher Award from the Government of Ontario and the Petro-Canada Young Innovator Award.

Highlighted Papers:
- A mental health paradox: Mental health was both a motivator and barrier to physical activity during the COVID-19 pandemic. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0239244
- Examining the associations between physical activity and academic performance in a large sample of Ontario students. The role of inattention and hyperactivity https://journals.humankinetics.com/view/journals/jpah/17/12/article-p1231.xml
“McMaster Kinesiology provided a foundation in human physiology that fostered my interest in the human body and healthcare” - A. Powell Nov. 2021

Anne Powell completed her Kinesiology degree at McMaster in 1997 having spent her last year of the program on exchange at UBC. She went on to complete her Master of Science in Exercise Physiology at Western University. She decided that research was not her passion and enrolled in medical school at McMaster, graduating in 2002. She went on to complete a 5 year residence in Obstetrics and Gynecology and she currently serves as the Chief and Medical Director of Obstetrics and Gynecology at Brantford General Hospital.

**ACHIEVEMENT HIGHLIGHT**

“I was in disbelief to find out that I was awarded this medal. Most of all, I am grateful for the opportunities and support that my supervisor and this department provided to me that allowed me to achieve this milestone.”
- C. Turco, Nov. 2021

Recently, Claudia was awarded the 2021 Governor General’s Academic Gold Medal. The Governor General Academic Gold Medal is awarded to a student who achieves the highest academic standing at the Graduate Level. Dr. Turco defended her PhD earlier this year, which was focused on using non-invasive brain stimulation to study neural pathways and neuroplasticity in response to exercise. She is currently a medical student at the University of Alberta.
Soroush Bagheri - Level 4 Honours B.Sc. Kinesiology Student
- Proved Honours Roll Medal for obtaining 12 in all classes taken in level-3.
- Recently presented a proposal in a conference (SOMBS 2021) during the summer.

Josh Cherubini - Level 1 Doctoral Student
- Recently published a manuscript: Cherubini JM and MacDonald MJ Statistical Inferences Using Effect Sizes in Human Endothelial Function Research Artery Research https://doi.org/10.1007/s44200-021-00006-6

Connor Droog - Year 2 MSc. Student (Convocated)
- Recently accepted a position as a Research Assistant at the Population Health Research Institute here at McMaster.

Emily Dunford - Post-doctoral Fellow
- On Sept 24, 2021, Emily Dunford accepted a position as a medical writer/project manager at FUSE Health after 4 years as a post-doctoral research fellow in the Vascular Dynamics Lab

Devin McCarthy - Level 4 Doctoral Student

Sehely Rahman - Level 4 Honours B.Sc. Kinesiology Student
- Awarded a Hamilton Community Foundation Bursary, valued at $20, 000 per year. This bursary is awarded to students from Hamilton high schools who have shown a passion and commitment to pursuing a career in health care, and who have demonstrated resiliency in overcoming barriers to accessing further education.
- Co-author on a recent publication Cameron Health Research and Evidence Database while working with Clemence Ongolo, a Masters student under Dr. Mbuabaw Lawrence (https://camhred.org/)

Jake Pickersgill - Level 2 Masters Student
- Awarded an Ontario Graduate Fellowship (OCF) worth $12,000 (2021-2022) and the Ontario Graduate Scholarship (OCS) in 2020-2021.

Samira Sunderji - Level 4 Honours B.Sc. Kinesiology Student
- Co-authored 8 books alongside undergraduate students across Canada as a part of an internship program organized by the Antarctic Institute of Canada and funded by Riipen. The books were on a variety of topics in the fields of natural sciences, health sciences, history, and medicine/health. (https://mcmaster.academia.edu/SamiraSunderji) OR purchase them on Amazon/Lulu (https://www.lulu.com/search?adult_audience_rating=00&page=1&pageSize=4&q=samira-sunderji)
- Chosen to present her research from one of the books at the 2nd annual AIC Conference in August (https://www.youtube.com/watch?v=YYICmHWzMcU).

Claire Tuckey - Level 4 Doctoral Student
- Presented a component of her dissertation research in a talk entitled “The specificity and generalizability of practice when learning a motor task: A scoping review” at the Canadian Society for Psychomotor Learning and Sport Psychology (SCAPPS) annual conference on October 22.

Tiffany VanLieshout - Level 4 Doctoral Student
- The department would like to send a big congratulations out to Tiffany on the safe arrival of her son Orson Athan, born November 24th at McMaster Children’s Hospital! Welcome to the KIN family, Orson!

Jenny Williams - Level 4 Doctoral Student
- Won the CSEP PhD student poster award at the recent CSEP AGM https://twitter.com/CSEPdotCA/status/144913561685636301
PhD Defences

- **The NeuroFit lab was invited to contribute to a special issue in ACSM's Health & Fitness Journal on HIIT for Chronic Disease** with contributors from all over the world. Title: HIIT as a Tool for Improving Mental Health and Cognition
  [https://journals.lww.com/acsm-healthfitness/Abstract/2021/09000/HIIT_as_a_Tool_for_Improving_Mental_Health_and_7.aspx](https://journals.lww.com/acsm-healthfitness/Abstract/2021/09000/HIIT_as_a_Tool_for_Improving_Mental_Health_and_7.aspx)

- **Professors Martin Gibala and Jennifer Heisz in the NY Times**

Jim Lyons - Professor

- Named the Wilberg Memorial Lecturer (2021) at the Canadian Society for Psychomotor Learning and Sport Psychology (SCAPPS) annual conference. This was in recognition for career contributions to the field of motor learning and control. The lecture was titled: From Fred and Joe’s complicated relationship to solving the condiment conundrum: Reliving the sights, sounds and spectacles of a 25-year lab road trip across the great white north.

- [https://www.chch.com/a-locally-developed-app-is-helping-to-improve-baseball-pitchers-performance/](https://www.chch.com/a-locally-developed-app-is-helping-to-improve-baseball-pitchers-performance/)

Kenny Noguchi and Mike Sonne (Past grads)

- Created an app to help improve baseball pitcher’s performance. See CHCH's Story here:

Stu Phillips - Professor

- Recognized as one of the most highly cited researchers in his field.

SUCCESSFUL DEFENCES

**MSc Defences**

- **Andrew Wong** - Supervisor: P. Keir - Thesis Title: “Investigating the effects of altered blood flow, force, wrist posture, finger movement speed, and population on motion and blood flow in the carpal tunnel” Date of Defence: September 22, 2021
- **Riley Craig** - Supervisor: P. Keir - Thesis Title: "An investigation of biomechanical signals and their contribution to joint action during team lifting" Date of Defence: August 19th 2021
- **Emma Nicholson** - Supervisor: J. Heisz - Thesis Title: “Investigating the protective effects of physical activity on acute stress reactivity in IBS patients” Date of Defence: July 27, 2021
- **Maryam Marashi** - Supervisor: J. Heisz - Thesis Title: “Examining the Associations of physical fitness, mental health, and heart rate variability in graduate students during a pandemic” Date of Defence: July 27, 2021
- **Connor Droog** - Supervisor: M. MacDonald - Thesis Title: “The influence of reported physical activity and potential sex differences on carotid arterial stiffness in aging Canadians with diabetes” Date of defence: July 16, 2021
- **Rajbir Sidhu** - Supervisor: M. Carter - Thesis Title: “Combining punishment and reward feedback during sequence learning using transition schedules” Date of Defence: June 16, 2021
- **Mirette Mounir** - Supervisor: M. Carter - Thesis Title: “The impact of punishment and reward feedback on sequence learning” Date of Defence: June 14, 2021
- **Noah Erskine** - Supervisor: J. Lyons - Thesis Title: “Examining the Efficacy of Attentional Focus Instruction on Typically and Atypically Developing Young Learners Performing a Postural Control Task: A Four Experiment Research Proposal” Date of Defence: October 29, 2021

**PhD Defences**

IN THE LAB

Neurophysiology and Imaging Lab

Image 1. Pictured is Stephen Toepp (PhD Candidate) holding a Transcranial Magnetic Stimulation (TMS) coil over the motor cortex of Jake Pickersgill (MSc Candidate) to evaluate sensorimotor integration in a muscle of the hand.

Image 2. Pictured is Stephen Toepp (PhD Candidate) training on the maze task for this study, which is performed while blindfolded to emphasize tactile discrimination at the fingertip.

Photos submitted by J. Pickersgill

https://www.macneurolab.com/

Molecular Exercise Physiology & Muscle Aging Lab

Members of Dr. Gianni Parise’s lab are pictured growing skeletal muscle cells and staining muscle cross sections. You can learn more about the Molecular Exercise Physiology & Muscle Aging Lab here:


Photos submitted by M. Kamal

Protein Metabolism Research Lab

“Our first in-person gathering in more than 1.5 years this past summer! We enjoyed some delicious food, a few drinks, and some great chats. The star guest was 3mo old Rafael (bottom right), the newest addition to the group.” Submitted by S. Phillips


Photo submitted by S. Phillips

"IN THE LAB" PHOTO SUBMISSIONS CAN BE SENT TO MCKAYK16@MCMASTER.CA